



# Industrial Lifting Equipment



- Safety
- Reliability
- Efficiency
- Expertise

# Lifting Air Winches

## LIFTSTAR® Portable Winches - Reliable and Safe

### Lightweight and compact design

- Versatile – Easy to carry.
- Robust steel construction. Insensitive to dust and humidity.
- High efficiency planetary gear box – Integrated inside winch drum keeping size to a minimum.
- 5:1 design factor.

### Rated capacity calculated at drum top layer

- A LIFTSTAR® winch will always lift its rated capacity at any layer of rope. At rated load, its lifting speed is constant at all layers.

### Reliable gear type air motor

- Better ability than other motors to accept contaminated air.
- High starting torque ensuring good spotting capability.
- Virtually maintenance free and reduced downtime.

### Precise positioning

- Variable speed through direct control lever with “Lift & Shift” system or progressive remote pilot pendent.

### Increased safety

- Self adjusting automatic disc brake, fully enclosed for better protection and corrosion resistance – Maintenance free.

### CE models

- CE compliant models include as standard drum guard, main air emergency stop, overload protection and upper / lower limit switches.



LS2-600R-L-CE



LS1500RGC-L-CE



LIFTSTAR® winches are particularly suitable for use in potentially explosive atmospheres, unlike electric winches.

They are classified as standard as Equipment Category 2 for applications in Zone 1 and 2 (As per ATEX 94/9/CE directive for Surface Industry). ATEX Marking: Ex II 2 GD c IIB 135°C X

**Specifications** at 6.3 bar dynamic pressure (when winch is running) — Working pressure range 5 to 7 bar.

As per European Standard EN 14492-1 – Group of mechanism as per FEM 1Bm / ISO M3.

Model number	Rated capacity at TOP LAYER (kg)	LIFTING SPEED AT RATED LOAD at top rope layer (m/min)	at lowest rope layer (m/min)	Rated number of layers <sup>(1)</sup>	Air consumption with rated load (m³/min)	Sound pressure as per EN 14492-1 dB(A)	Weight without rope (kg)	ATEX marking Ex II 2 GD c IIB 135°C X
<b>Lifting Ratings at 5:1 Design Factor</b>								
LS2-300R	300	40	40	7	4	92	42	✓
LS2-300RGC	300	40	40	7	4	92	49	✓
LS2-600R	600	20	20	5	4	92	42	✓
LS2-600RGC	600	20	20	5	4	92	49	✓
LS-1500R	1500	7	7	4	5	88	67	✓
LS-1500RGC	1500	7	7	4	5	88	79	✓

(1) Measured with recommended rope diameter (see table below).

### Rope capacity with recommended rope diameter

Model number	Minimum rope breaking force (kN)	Recommended rope diameter (mm)	Cumulated working rope capacities in meters <sup>(2)</sup> with RECOMMENDED ROPE DIAMETER							Max. rope storage capacity (m)
			Layer 1	Layer 2	Layer 3	Layer 4	Layer 5	Layer 6	Layer 7	
Lifting Ratings at 5:1 Design Factor										
LS2-300R	15	5	12	26	41	57	74	92	110	150
LS2-300RGC	15	5	26	54	85	117	152	188	226	307
LS2-600R	30	6.5	9	20	32	45	58	—	—	89
LS2-600RGC	30	6.5	19	42	66	93	121	—	—	183
LS-1500R	75	9	9	21	34	48	—	—	—	79
LS-1500RGC	75	9	20	45	71	100	—	—	—	163

(2) As per EN 14492-1, the working rope capacity leaves a free space of at least 1.5 times the nominal rope diameter from the top of the drum flanges.



## How to order LIFTSTAR® Air Winches

To order your winch, specify complete model as shown below:

**LIFTSTAR® CE marked models** are compliant with the European Machinery Directive 2006/42/EC and the European Standard for Power Driven Winches EN 14492-1. These models include as standard the following safety features:

- Drum guard
- Emergency stop with main air shut-off valve as per EN 418
- Overload protection
- Upper / lower limit switches



Drum guard and emergency stop (standard on CE version)



Limit switches (standard on CE version)



Overload protection (standard on CE version)



PHS control (with emergency stop as standard on CE version)



Ingersoll Rand ARO Series Airline accessories (J123 option).

**LS1500R**

**GC - L**

**M - PJ12 - CE**

Series and capacity	ATEX Compliance	Drum	Control type	Control length	Options
<b>LS2-300R</b> LIFTSTAR® 300 kg	No letter = As std - ATEX compliance for Group II, Surface Industry  <b>M</b> = ATEX compliance package for Group I, Mining Industry (on request) - only for LS1500R	No letter = Standard  <b>GC</b> Long drum	<b>L</b> Lever control	<b>XM</b> Control length <b>in metres</b> e.g. 5M  (only when with pendent control)	<b>C</b> Low temp design (-20°C).
<b>LS2-600R</b> LIFTSTAR® 600 kg			<b>PH</b> Alloy precision PHS pendent		<b>G</b> Drum guard.
<b>LS1500R</b> LIFTSTAR® 1 500 kg			<b>PHR</b> Cast iron precision PHS pendent		<b>H</b> High Temp. Motor (60° to 85°C) <sup>(1)</sup> <b>J12</b> Airline filter and lubricator assembly <b>J123</b> Airline filter / regulator / lubricator assembly <b>M</b> 3.1 material traceability certificates <sup>(2)</sup> <b>P</b> 150 µ marine paint. <b>W</b> Witness test. Specify W1 for ABS or W2 for DNV or W3 for LRS or W4 for Client witness of load test.  <b>-CE</b> Compliance with the European Machinery Directive (no letter = non CE version).

(1) For winches used with compressed air temperature above 60°C. — (2) As per EN 10204 on main load bearing parts.

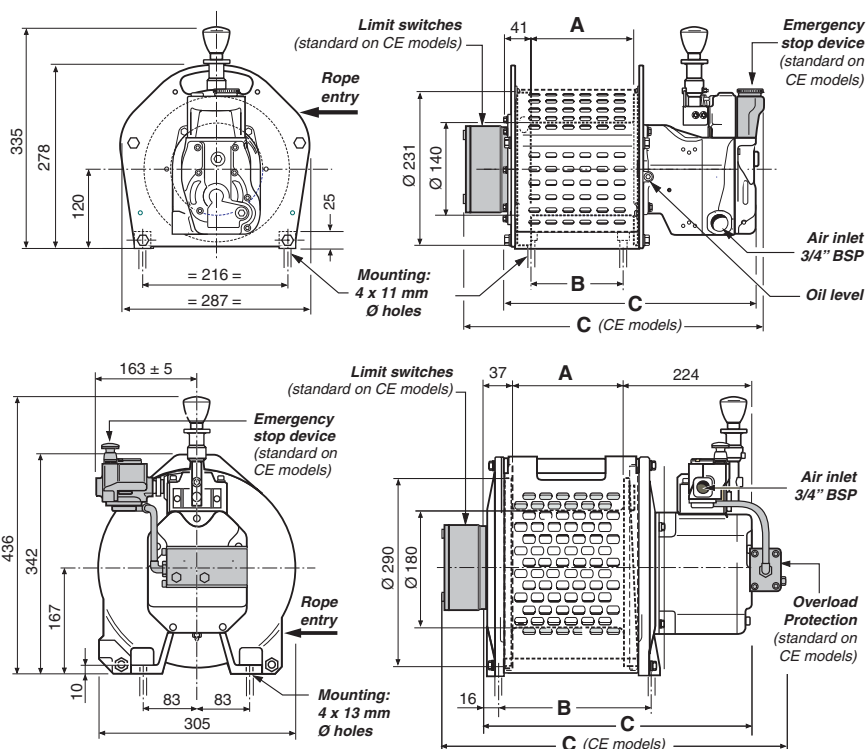
### Dimensions (mm)

Models LS2-300R, LS2-300RGC, LS2-600R and LS2-600RGC

Model number	Dimensions (mm)		
	A	B	C
<b>LS2-300R</b>	155	140	395
<b>LS2-300RGC</b>	311	296	551
<b>LS2-300R-CE</b>	155	140	461
<b>LS2-300RGC-CE</b>	311	296	617
<b>LS2-600R</b>	155	140	395
<b>LS2-600RGC</b>	311	296	551
<b>LS2-600R-CE</b>	155	140	461
<b>LS2-600RGC-CE</b>	311	296	617

Models LS1500R and LS1500RGC

Model number	Dimensions (mm)		
	A	B	C
<b>LS1500R</b>	180	248	434
<b>LS1500RGC</b>	360	428	614
<b>LS1500R-CE</b>	180	248	563
<b>LS1500RGC-CE</b>	360	428	743



# Pulling Air Winches

## PULLSTAR® Portable Winches - Reliable and Safe

### Designed for pulling applications

- Intended for use on flat horizontal surfaces – Free Spooling clutch allows operators to manually position wire rope.
- 3.5:1 design factor.
- Rated capacity calculated at lowest rope layer, corresponding to the maximum pulling force allowed.

### Lightweight and compact design

- Versatile – Easy to carry.
- Robust and all steel construction. Insensitive to dust and humidity.
- High efficiency planetary gear box – Integrated inside winch drum keeping size to a minimum.

### Reliable gear type air motor

- Better ability than other motors to accept contaminated air.
- Virtually maintenance free and reduced downtime.

### Precise positioning

- Variable speed through direct control lever with “Lift & Shift” system or progressive remote pilot pendent.

### Increased safety

- Self adjusting automatic disc brake, fully enclosed for better protection and corrosion resistance – Maintenance free.

### CE models

- CE compliant models include as standard drum guard and main air emergency stop.



PS2-1000R-PH5M-E



PS2400RGC-L-E



PULLSTAR® winches are particularly suitable for use in potentially explosive atmospheres, unlike electric winches. They are classified as standard as Equipment Category 2 for applications in Zone 1 and 2 (As per ATEX 94/9/CE directive for Surface Industry). ATEX Marking: Ex II 2 GD c IIB 135°C X.

**Specifications** at 6.3 bar dynamic pressure (when winch is running) – Working pressure range 5 to 7 bar – **As per European Standard EN 14492-1** – Group of mechanism as per FEM 1Bm / ISO M3.

Model number	Pulling force: Lowest / top layer (kg)	Rated number of layers <sup>(1)</sup>	Air consump. / rated load (m³/min)	Sound pressure as per EN 14492-1 dB(A)	Weight wo. rope (kg)	ATEX marking Ex II 2 GD c IIB 135°C X
<b>Pulling Ratings at 3.5:1 Design Factor</b>						
<b>PS2-1000R</b>	<b>1000 / 800</b>	5	4	92	38	✓
<b>PS2-1000RGC</b>	<b>1000 / 800</b>	5	4	92	45	✓
<b>PS2400R</b>	<b>2400 / 2000</b>	4	5	88	62	✓
<b>PS2400RGC</b>	<b>2400 / 2000</b>	4	5	88	69	✓

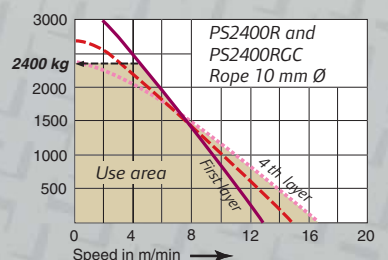
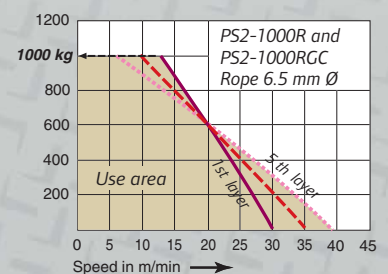
(1) Measured with recommended rope diameter (see table below).

(2) For PS4000RGC, line pulls are reduced by 10% and line speeds are increased by 10%.

### Rope capacity with recommended rope diameter

Model number	Minimum rope breaking force (kN)	Recommended rope diameter (mm)	Cumulated working rope capacities in meters <sup>(2)</sup> with RECOMMENDED ROPE DIAMETER					Max. rope storage capacity (m)
			Layer 1	Layer 2	Layer 3	Layer 4	Layer 5	
Pulling Ratings at 3.5:1 Design Factor								
PS2-1000R	35	6.5	9	20	32	45	58	89
PS2-1000RGC	35	6.5	19	42	66	93	121	183
PS2400R	84	9	9	21	34	48	—	79
PS2400RGC	84	9	20	45	71	100	—	163

(2) As per EN 14492-1, the working rope capacity leaves a free space of at least 1.5 times the nominal rope diameter from the top of the drum flanges.



# Pulling Air Winches

**PULLSTAR® CE marked models** are compliant with the European Machinery Directive 2006/42/EC and the European Standard for Power Driven Winches EN 14492-1. These models include as standard the following safety features:



- Drum guard
- Emergency stop with main air shut-off valve as per EN 418



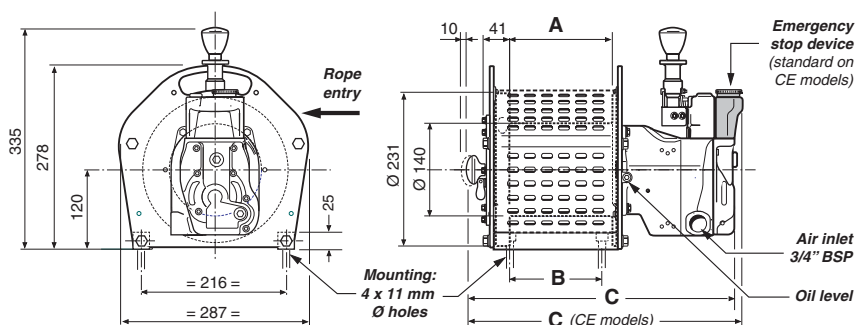
Ingersoll Rand ARO Series  
Airline accessories (J123 option).



Series and capacity		ATEX Compliance	Drum	Control type		Control length	Options
<b>PS2-1000R</b>	PULLSTAR® 1 000 kg	No letter = As std - ATEX compliance for Group II, Surface Industry  <b>M</b> = ATEX compliance package for Group I, Mining Industry (on request) - only for PS2400R	No letter = Standard	<b>L</b>	Lever control	<b>XM</b> Control length <b>in metres</b> e.g. 5M  <i>(only when with pendent control)</i>	<b>C</b> Low temp design (-20°C).
<b>PS2400R</b>	PULLSTAR® 2 400 kg		<b>GC</b> Long drum	<b>PH</b>	Alloy persion PHS pendent		<b>G</b> Drum guard. <b>H</b> High Temp. Motor (60° to 85°C) <sup>(1)</sup> <b>J12</b> Airline filter and lubricator assembly <b>J123</b> Airline filter / regulator / lubricator assembly <b>M</b> 3.1 material traceability certificates <sup>(2)</sup> <b>P</b> 150 µ marine paint. <b>W</b> Witness test. Specify W1 for ABS or W2 for DNV or W3 for LRS or W4 for Client witness of load test.
							<b>-E</b> Compliance with the European Machinery Directive (no letter = non CE version).

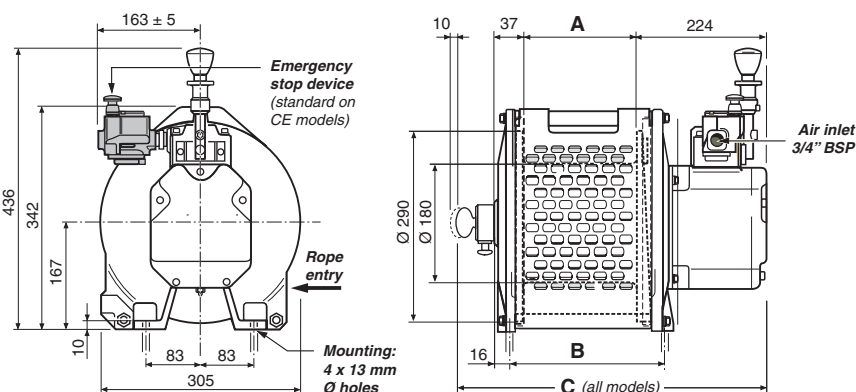
## Models PS2-1000R and PS2-1000RGC

Model number	Dimensions (mm)		
	A	B	C
<b>PS2-1000R</b>	155	140	392
<b>PS2-1000RGC</b>	311	296	548
<b>PS2-1000R-E</b>	155	140	427
<b>PS2- 1000RGC-E</b>	311	296	583



## Models PS2400R and PS2400RGC

Model number	Dimensions (mm)		
	A	B	C
<b>PS2400R</b>	180	248	509
<b>PS2400RGC</b>	360	428	689
<b>PS2400R-E</b>	180	248	509
<b>PS2400RGC-E</b>	360	428	689





# Air Chain Hoist - 125 to 500 kg Capacity

## CLK Compact, High Performance and Durable Hoist

### Lightweight and durable

- Robust high strength aluminium housing – Easy to transport.
- FEM/ISO mechanism classification 1Am/M4 .
- Up to 800 hours of operating time without any maintenance !
- Insensitive to dust and humidity.
- Corrosion resistant load chain for better protection and longer life.
- Durable powder coated paint finish.
- Bottom hook on anti-friction needle type thrust bearings.

### Efficiency

- 100% duty cycle multi-vane motor – Avoids downtime.
- Very low air consumption.
- Precise load positioning through full flow control pendent.
- Low noise level (75 dBA).

### Safety

- Self adjusting internal automatic disc brake – no maintenance required.
- Top and Bottom limit switches ensure safe operation.
- Main air emergency stop button at pendent.
- Fabric chain bucket as standard to keep slack chain out of the way.
- Compliant with the European Machinery Directive.

### Versatility

- Swivel top hook can be easily converted to fixed position with 90° increments.
- The hoist can be associated to a translation trolley by hook attachment (see PT005 trolley) or by rigid mounting (see RT010 trolley).



CL500K-2C10-C6U-E



CLK Series air hoists are particularly suitable for use in potentially explosive atmospheres, unlike electric hoists. In their standard design, they are classified as equipment category 3 for applications in zone 2 as per ATEX 94/9/CE Directive (ATEX marking Ex II 3 GD c IIB 135°C X).



**Specifications** at 6.3 bar dynamic pressure (when hoist is running) – Working pressure 5 to 7 bar.

Model number	Rated capacity (kg)	Falls of load chain	Min. headroom (mm)	Lifting speed at rated load (m/min)	Lifting speed at no load (m/min)	Lowering speed at rated load (m/min)	Air cons. at rated load (m <sup>3</sup> /min)	Sound pressure <sup>(1)</sup> (dB(A))	Hoist weight <sup>(2)</sup> (kg)	Chain size (mm)	Chain weight/1m extra lift (kg)
<b>CLK Series - Hook mount configuration</b>											
<b>CL125K</b>	<b>125</b>	<b>1</b>	292	13.1	17.1	11.3	0.9	75	15.4	4x12	0.36
<b>CL250K</b>	<b>250</b>	<b>1</b>	292	9.8	17.1	13.7	0.9	75	15.4	4x12	0.36
<b>CL500K</b>	<b>500</b>	<b>2</b>	324	4.6	7.9	6.7	0.9	75	17.2	4x12	0.72

(1) Sound pressure levels are measured per European Standard EN 14492-2

(2) Weight with standard height of lift (3 m) and standard length of control (2 m).

## How to order CLK Air Hoists

To order your hoist, specify complete model as shown below.



CLK hoists are delivered as standard in compliance with the European Machinery Directive 2006/42/EC and the European Standard for Power Driven Hoists EN 14492-2. They include as standard a main air emergency stop and a chain bucket.



Standard emergency stop on pendent control



Ingersoll Rand ARO Series Airline accessories (J123 option).

**CL250K-2**

**C**

**10 - C**

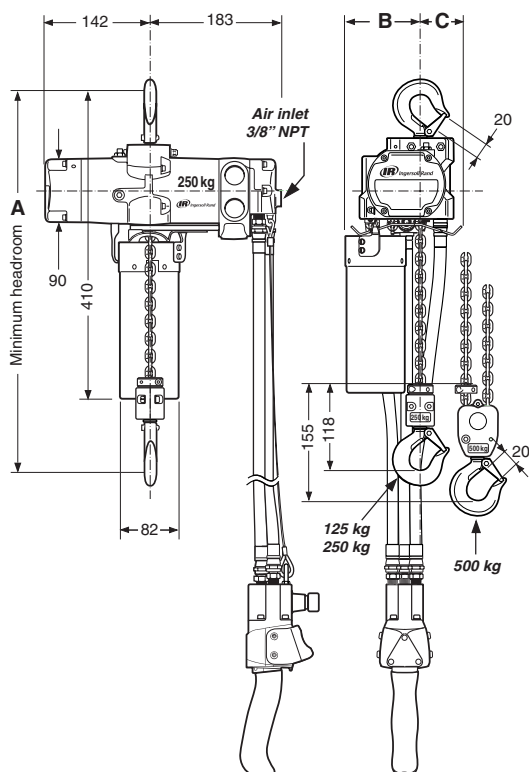
**6**

**J12**

**U-E**

Series / load capacity	Control type	Suspension	Lift in ft	Lower hook	Control length in ft	Options	Standard equipment
CL250K 250kg CL500K 500kg CL1000K 980kg	2 Full fow pendent control	A Fixed lug (Rigid mounting part for RT010A trolley) C Swivel top hook	10 10 feet (3 m)* 15 15 feet (4.5 m)* 20 20 feet (6 m)* XX Above 20 ft, specify height of lift in feet (200 ft max. for CL125K & 250, 100 ft max. for CL500K)	C Steel snap hook	6 6 feet (1.8 m) 13 13 feet (4 m) 18 18 feet (5.5 m) XX Specify length of control in feet (40 ft / 12 m max. pendent hose length),	J12 Airline filter and lubricator assembly J123 Airline filter, regulator, lubricator assembly	U Chain bucket, 40 ft of lift capacity for CL125K and CL250K, 20 ft of lift capacity for CL500K -E Compliance with the European Machinery Directive (includes emergency stop as standard)

\* Standard heights of lift



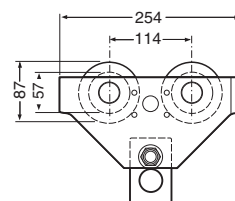
### Other dimensions in mm

Model number	A	B	C
CL125K	292	103	57
CL250K	292	103	57
CL500K	324	118	42

## Accessories

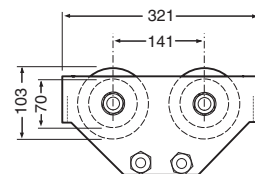
### PT005 Series hook-on trolley

Wheels are cast iron and the universal tread fits either flat or tapered beams. 0.5 ton load capacity. Flange adjustment: 66 to 203 mm. Min. beam height: 100 mm. Min. curve radius: 915 mm. Weight: 9 kg. Extension kit for wide beam: 203 to 330 beam width, part no. **PT005-WFK** (weight: 2.5 kg).



### RT010 Series trolley

The twin suspension shaft RT Series trolley offers a rigid connection for the CLK air hoists. The wheels have a universal tread for use on flat or tapered beams. A lug adapter is required for use (select "A" suspension in the "how to order"). 1 ton load capacity. Minimum headroom:  
• With CL125K and CL250K hoist, 358 mm.  
• With CL500K hoist, 390 mm. Flange adjustment: 68 to 152 mm. Min. beam height: 127 mm. Min. curve radius: 915 mm. Weight: 14.1 kg.



### MR-939-6 Quick exhaust valve with fittings

In order to reduce the control response time, quick exhaust valves are required from 19 ft (5.8 m) of pendent hose length. Valves need to be evenly spaced between pendent handle and hoist on "up" and "down" hoses. From 19 ft to 30 ft (5.8 to 9 m), 1 valve **per hose** is required — From 30 ft to 40 ft (9 to 12 m), 2 valves **per hose** are required. Valves to be ordered as a separate item.





# Air Chain Hoist - 250 to 1000 kg Capacity

## MLK Heavy Duty, High Speed Production Hoist

### Rugged construction for severe duty use

- Robust high strength aluminium housing with durable powder coated paint finish.
- Insensitive to dust and humidity.
- 100% duty cycle multi-vane motor – Avoids downtimes.
- Corrosion resistant load chain.

### Efficiency

- High lifting and lowering speeds.
- Low air consumption.
- Precise load positioning through pilot pendent or pull chain.
- Low noise level (89 dBA).

### Safety

- Self adjusting automatic disc brake, fully enclosed for better protection – No maintenance required.
- Top and Bottom limit switches ensure safe operation.

### Versatility

- Numerous options available for adaptation to your application: chain containers, rigid mounting trolleys, CE compliant versions, spark resistant versions suitable for ATEX zone 1, etc... (see "how to order").



ML500K-2C10-C6-E



MLK Series are particularly suitable for use in potentially explosive atmospheres. In their standard design, they are classified as equipment category 3 for applications in zone 2 as per ATEX 94/9/CE Directive (ATEX marking Ex II 3 GD c IIB 135°C X).

They are also available in spark resistant, version for use in explosive atmospheres Zone 1 (ATEX marking Ex II 2 GD c IIB 135°C X).

**Specifications** at 6.3 bar dynamic pressure (when hoist is running). Working pressure 5 to 7 bar.

Model number	Rated capacity (kg)	Falls of load chain	Min. headroom (mm)	Lifting speed at rated load (m/min)	Lifting speed at no load (m/min)	Lowering speed at rated load (m/min)	Air cons. at rated load (m³/min)	Sound pressure <sup>(1)</sup> (dB(A))	Hoist weight <sup>(2)</sup> (kg)	Chain size (mm)	Chain weight/1m extra lift (kg)
<b>MLK Standard Series / Hook mount configuration</b>											
ML250K	250	1	457	30.8	52.1	35.7	2.1	89	21.8	6.4x19.5	1.0
ML500K	500	1	457	16.8	32.3	29.6	2.1	89	21.8	6.4x19.5	1.0
ML1000K	1000	2	457	8.5	16.2	14.9	2.1	89	27.7	6.4x19.5	2.0
<b>MLK for explosive atmosphere Zone 1 (as per ATEX Ex II 2 GD c IIB 135°C X) / Hook mount configuration</b>											
ML250KR	250	1	457	7.9	12.8	11.6	2.1	89	28.1	6.4x19.5	1.0
ML500KR	500	2	457	4.0	6.4	6.1	2.1	89	28.1	6.4x19.5	2.0

## Trolley Mount Configuration – Additional specifications

Model number	Rated capacity (kg)	Trolley + Hoist min. headroom (mm)	Trolley flange adjustment (mm)	Min. inside curve radius (m)	Travelling speed at rated load (m/min)	Trolley air cons. at rated load (m³/min)	Weight (hoist + trolley) (kg) <sup>(2)</sup>
<b>MLK Series with RT010 plain trolley<sup>(3)</sup></b>							
ML250K(R)...DA	250	457	68 - 152	1.0	–	–	34.5
ML500K(R)...DA	500	457	68 - 152	1.0	–	–	34.5
ML1000K(R)...DA	1000	457	68 - 152	1.0	–	–	40.4
<b>MLK Series with RT010 motorised trolley</b>							
ML250K(R)...HA	250	457	68 - 152	1.0	29	1	37.7
ML500K(R)...HA	500	457	68 - 152	1.0	29	1	37.7
ML1000K...HA	1000	457	68 - 152	1.0	28	1	43.6
<b>MLK Series with TIR6600 motorised trolley for wide beam</b>							
ML250K(R)...HD	250	442	152 - 305	1.1	29	1	37.9
ML500K(R)...HD	500	442	152 - 305	1.1	28	1	37.9
ML1000K...HD	1000	442	152 - 305	1.1	27	1	43.8

(1) Sound pressure levels are measured per European Standard EN 14492-2 — (2) Weight with standard height of lift (3 m) and standard length of control (2 m).

(3) Also available with hand chain control on request.



## How to order MLK Hoists

To order your hoist, specify complete model as shown below. For hoists with trolley, specify beam size, type and flange width.



**MLK CE marked models** are compliant with the European Machinery Directive 2006/42/EC and the European Standard for Power Driven Hoists EN 14492-2. They include as standard a main air emergency stop (not available with pull cord control).



MLK under manual trolley



MLK under motorised trolley

**ML500K - 3**

**HA**

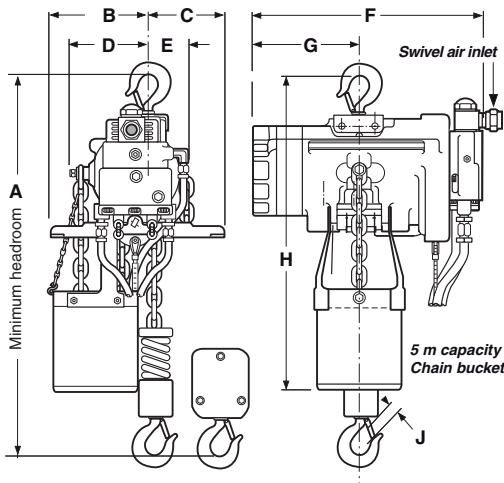
**10 - C6**

**U - E**

Series / load capacity	Control type	Suspension	Lift in ft	Control length in ft	Options
<b>Standard Series</b>	<b>1</b> Cord control (not available for hoist under motorized trolley)	<b>C</b> Swivel top hook (not for spark resistant model)	<b>10</b> 10 feet (3 m)	<b>CX</b> Specify length of control in ft, for standard models, e.g. C6 = 6 ft (1.8 metre)	<b>J12</b> Airline filter and lubricator assembly
<b>ML250K</b> 250kg	<b>2</b> PHS pendent	<b>DA</b> Plain rigid universal trolley	<b>XX</b> Specify height of lift in feet, e.g. 10 = 10 ft (3 metre)	<b>RX</b> Specify length of control in ft, for spark resistant models, e.g. R6 = 6 ft (1.8 metre)	<b>J123</b> Airline filter / regulator / lubricator assembly
<b>ML500K</b> 500kg	<b>3</b> Two motor PHS Pendent (for hoist & trolley)	<b>HA</b> Vane motor driven universal trolley			<b>S</b> Chain container Steel
<b>ML1000K</b> 980kg		<b>HD</b> Vane motor driven universal trolley for wide beam			<b>U</b> Chain container Fabric
<b>Spark Resistant Series<sup>(1)</sup></b>		<b>R</b> Bronze hook (only for spark resistant model)			<b>-E</b> Compliance with the European Machinery Directive.
<b>ML250KR</b> 250kg					
<b>ML500KR</b> 500kg					

(1) Spark Resistant Series include top and bottom hooks in bronze and stainless steel load chain. In addition, copper plated trolley wheels when fitted with trolley.

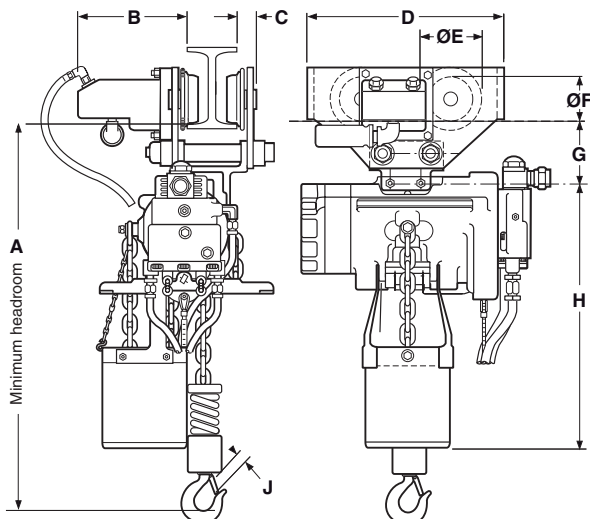
### Hook mount configuration



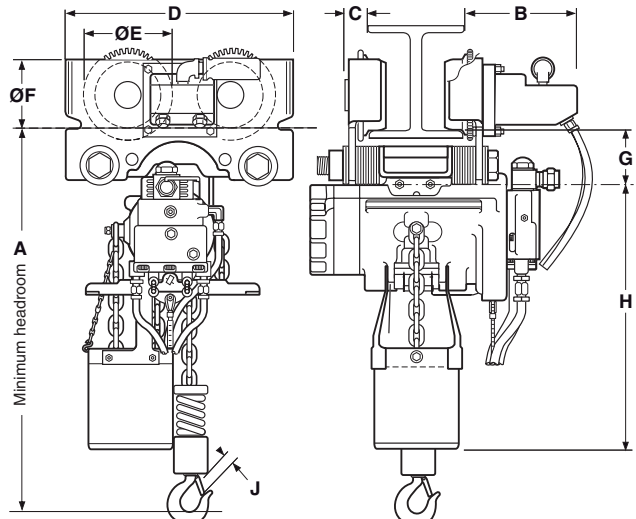
Model number	A	B	C	D	E	F	G	H <sup>(2)</sup>	J	Air Inlet Ø
<b>Hook Mount – Dimensions in mm</b>										
<b>ML250K</b>	457	146	102	114	54	343	162	483	24	1/2" NPT
<b>ML250KR</b>	457	146	102	114	54	343	162	483	28	1/2" NPT
<b>ML500K</b>	457	146	102	114	54	343	162	483	24	1/2" NPT
<b>ML500KR</b>	457	165	83	135	25	343	162	508	28	1/2" NPT
<b>ML1000K</b>	457	165	83	135	25	343	162	508	28	1/2" NPT
<b>Trolley Mount – Dimensions in mm</b>										
<b>ML250K(R)...DA</b>	457	191	37	321	107	70	67	394	24	1/2" NPT
<b>ML500K(R)...DA</b>	457	191	37	321	107	70	67 (105)	394	24 (28)	1/2" NPT
<b>ML1000K...DA</b>	457	191	37	321	107	70	105	394	28	1/2" NPT
<b>ML250K(R)...HA</b>	457	191	37	321	107	70	67	394	24	1/2" NPT
<b>ML500K(R)...HA</b>	457	191	37	321	107	70	67 (105)	394	24 (28)	1/2" NPT
<b>ML1000K...HA</b>	457	191	37	321	107	70	105	394	28	1/2" NPT
<b>ML250K(R)...HD</b>	442	191	39	374	146	114	62	394	24	1/2" NPT
<b>ML500K(R)...HD</b>	442	191	39	374	146	114	62 (105)	394	24 (28)	1/2" NPT
<b>ML1000K...HD</b>	442	191	39	374	146	114	100	394	28	1/2" NPT

(2) Dimension for a 5 m capacity fabric chain bucket. For 13 m capacity fabric chain bucket, add 152 mm – For 8 m capacity metallic chain bucket, add 63 mm – For 12 m capacity metallic chain bucket, add 216 mm.

### Standard trolley mount configuration with RT010 trolley – Plain (DA) or motorised (HA)



### Trolley mount configuration with TIR6600 trolley for wide beam – Motorised only (HD)



# Air Chain Hoist - 250 to 2000 kg Capacity

## PALAIR® PLUS Hoist for Precise Positioning

### Precise positioning

- Exclusive gear type air motor with high starting torque offering precise spotting capability.
- Infinitely variable speed control through pilot pendent.

### Rugged and compact design,

- Compact and lightweight aluminium body.
- High power to weight ratio (e.g. 24 kg for 2 ton capacity).
- 100% duty cycle gear motor – Insensitive to dust and humidity or contaminated air.
- Corrosion resistant load chain.

### Safety

- Self adjusting automatic disc brake, fully enclosed for better protection – No maintenance required.
- Fully integrated top and bottom limit switches.
- Overload protection device as standard on CE marked 1.6 and 2 ton versions, (optional on all other versions).

### Versatility

- Numerous options available for adaptation to your application: chain containers, rigid mounting trolleys, CE compliant versions, specific versions with stainless steel load chain.



PAL500K-2C2M2A-E



PALAIR PLUS under motorised trolley for wide beam



PALAIR® PLUS Series are particularly suitable for use in potentially explosive atmospheres. In their standard design, they are classified as equipment category 3 for applications in zone 2 as per ATEX 94/9/CE Directive (ATEX marking Ex II 3 GD c IIB 135°C X).

With "R" spark resistant, option, they conform to Zone 1 (ATEX marking Ex II 2 GD c IIB 135°C X).

**Specifications** at 6.3 bar dynamic pressure (when hoist is running). Working pressure 5 to 7 bar.

As per European Standard EN 14492-2 Group of mechanism as per FEM 1Bm / ISO M3.

Model number	Rated capacity (kg)	Falls of load chain	Min. headroom (mm)	Lifting speed at rated load (m/min)	Lifting speed at no load (m/min)	Lowering speed at rated load (m/min)	Air cons. at rated load (m³/min)	Sound pressure (1) (dB(A))	Hoist weight (2) (kg)	Chain size (mm)	Chain weight/1m extra lift (kg)
<b>PALAIR® Plus fitted with zinc plated alloy steel load chain</b>											
PAL250K	250	1	433	20	30	23	2.2	85	15	5x15	0.54
PAL500K	500	1	433	15	30	27	2.2	85	15	5x15	0.54
PAL1000K	980	2	459	7.5	15	13.5	2.2	85	18	5x15	1.08
PAL1001K	980	1	428	7	14	13	2.2	85	19	7x21	1.10
PAL2000K	2000	2	554	3.5	7	6.5	2.2	85	24	7x21	2.20
<b>PALAIR® Plus fitted with stainless steel load chain</b>											
PAL250K...X	250	1	433	20	30	23	2.2	85	15	5x15	0.54
PAL310K...X	310	1	433	18	30	27	2.2	85	15	5x15	0.54
PAL630K...X	630	2	459	9	15	13.5	2.2	85	18	5x15	1.08
PAL800K...X	800	1	428	8	14	13	2.2	85	19	7x21	1.10
PAL1600K...X	1600	2	554	4	7	6.5	2.2	85	24	7x21	2.20

## Trolley Mount Configuration – Additional specifications

Model number	Trolley type	Flange width (mm)	Beam flange adjustment (mm)	Min. inside curve radius (mm)	Max. traverse speed / 1 ton load at 6.3 bar (m/min) (3)	Max. traverse speed / 2 ton load at 6.3 bar (m/min) (3)	Trolley air consumption (m³/min) (3)	Weight (trolley only) (kg)
PRU option	Plain	Standard	83 to 152	1067	—	—	—	15.5
PRUW option	Plain	Wide	152 to 305	1067	—	—	—	20.5
GRU option	Geared	Standard	83 to 152	1067	—	—	—	16.8
GRUW option	Geared	Wide	152 to 305	1067	—	—	—	21.8
HU option	Motorised	Standard	83 to 152	1067	27	24	0 to 1.2	20.5
HUW option	Motorised	Wide	152 to 305	1067	27	24	0 to 1.2	25.5

(1) Sound pressure levels are measured per European Standard EN 14492-2

(2) Weight with standard height of lift (3 m) and standard length of control (2 m).



## How to order PALAIR® PLUS Hoists

Please specify complete model code as shown.



**PALAIR® PLUS CE marked models** are compliant with the European Machinery Directive 2006/42/EC and the European Standard for Power Driven Hoists EN 14492-2.

They are fitted as standard with:

- Main air emergency stop.
- Overload protection device (on PAL1600K and PAL2000K only).



Two motor PHS pendant with emergency stop



12 m capacity chain bucket (option B)

**PAL500K - 3**

**HU**

**3M2 -**

**AR-E**

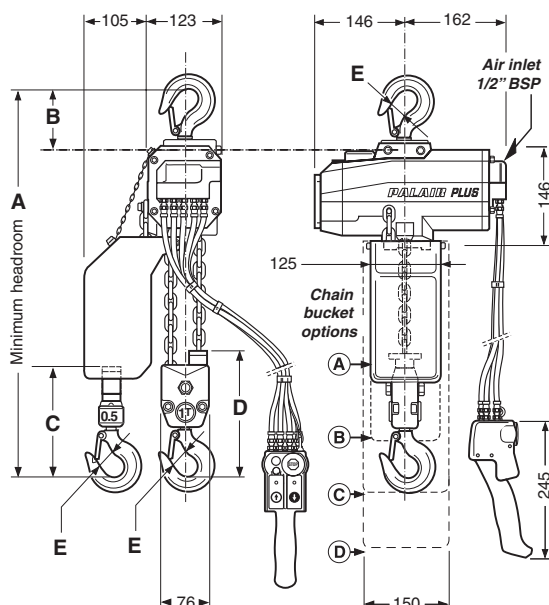
Series	Capacity	Control type	Suspension	Lift & control in metres	Options
PAL PALAIR®	<b>PALAIR® PLUS series with standard zinc plated alloy steel load chain</b>	2 One motor PHS pendant	<b>A</b> Fixed lug mount	<b>3M2</b> Standard: 3 m height of lift and 2 m of control	<b>A</b> Moulded chain bucket - 6 m capacity.
	<b>500K</b> 250 kg	3 Two motor PHS pendant (for hoist & trolley)	<b>C</b> Swivel top hook	<b>XMx</b> Specify heights of lift and control in metres, e.g. 5M4 = 5 m of lift with 4 m of control)	<b>B</b> Moulded chain bucket - 12 m capacity.
	<b>1000K</b> 980 kg (2 falls)		<b>PRU</b> Plain rigid universal trolley		<b>C</b> Metal chain bucket - 24 m capacity (only for PAL250K, PAL310K, PAL500K and PAL1000K).
	<b>1001K</b> 980 kg (1 fall)		<b>PRUW</b> Plain rigid universal trolley for wide beam		<b>D</b> Metal chain bucket - 36 m capacity (24 m capacity for PAL800K, PAL1001K, PAL1600K and PAL2000K)
	<b>2000K</b> 2000 kg		<b>GRU</b> Geared rigid universal trolley		<b>J12</b> Airline filter and lubricator assembly
	<b>PALAIR® PLUS series with stainless steel load chain (= with option X)</b>		<b>GRUW</b> Geared rigid universal trolley for wide beam		<b>J123</b> Airline filter / regulator / lubricator assembly
	<b>250K</b> 250 kg		<b>HU</b> Vane motor driven universal trolley		<b>R</b> Corrosion & Spark resistant package for zone 1 <sup>(1)</sup>
	<b>310K</b> 310 kg		<b>HUW</b> Vane motor driven universal trolley for wide beam		<b>S</b> Overload protection, available for CE models only (as standard on PAL1600K and PAL2000K "CE" versions).
	<b>630K</b> 630 kg				<b>X</b> Must be added to model code of all models fitted with stainless steel load chain.
	<b>800K</b> 800 kg				<b>-E</b> Compliance with the European Machinery Directive (no letter = non CE version).
	<b>1600K</b> 1600 kg				

(1) "R" option includes zinc plated top and bottom hooks and fasteners (and stainless steel fasteners under 10 mm Ø) – Zinc plated sprocket wheel on double fall units – Solid bronze wheels on trolleys.

## Dimensions in mm

### Hook mount versions

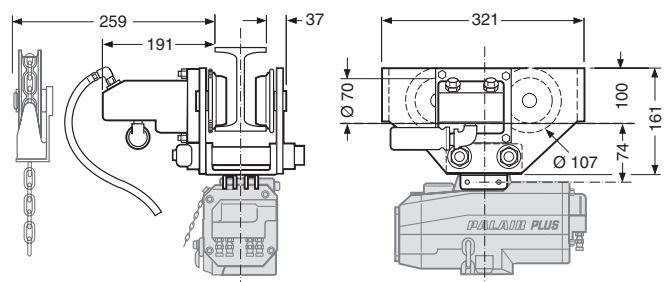
Model number	A	B	C	D	E
PAL250K, PAL310K, PAL500K	433	110	190	—	27
PAL630K, PAL1000K	459	110	—	224	27
PAL800K, PAL1001K	428	110	190	—	27
PAL1600K, PAL2000K	554	141	—	288	32



### Trolleys for standard beam width, models PRU (plain), GRU (geared) and HU (motorised)

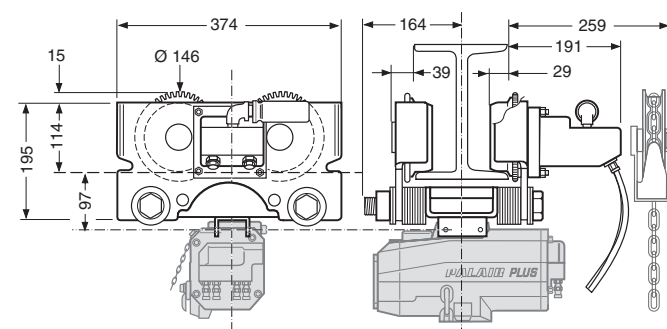
#### Compatible hoists:

PAL250K	PAL310K	PAL500K	PAL630K
PAL800K	PAL1000K	PAL1001K	



### Trolleys models for wide beam width, models PRUW (plain), GRUW (geared) and HUW (motorised)

#### Trolley compatible with all hoist models



# Air Chain Hoist – 1.5 to 25 t Capacity

## LIFTCHAIN® Hoists for Reduced Downtimes and Increased Safety

### Rugged construction

- All steel construction for better durability.
- Particularly adapted for difficult environments.
- Insensitive to dust and humidity. 100% duty cycle.
- Grade 80 calibrated load chain, corrosion resistant treated.

### Precise positioning

- Exclusive gear type air motor with high starting torque offering precise spotting capability.
- Infinitely variable speed control through pilot pendent or pull chain control.

### Safety

- Self adjusting automatic disc brake, fully enclosed for better protection – No maintenance required.
- Upper and lower limit switches, integrated in the hoist body for better protection. Allow the hoist to be also used in horizontal position.
- Overload protection device as standard on CE marked versions, (optional on all other versions).
- Main air emergency stop on pendent and built-in main air shut-off valve on CE versions.

### Versatility

- Numerous options available for adaptation to your application: chain containers (fabric or metallic material), rigid mounting trolleys (plain, geared or motorised), CE compliant versions.
- Spark resistant hoists or hoist and trolley combinations are also available for use in explosive atmospheres, using solid bronze or bronze coated parts (see details in the "how to order").

LIFTCHAIN® air hoists are particularly suitable for use in potentially explosive atmospheres. In their standard design, they are classified as equipment category 3 for applications in zone 2 as per ATEX 94/9/CE Directive (ATEX marking Ex II 3 GD c IIB 135°C X).

For more hazardous areas such as zone 1, they are offered with a special spark resistant package (ATEX marking Ex II 2 GD c IIB 135°C X).



LC2A250QIP3VE

LC2A120DIP2C-E

**Specifications** at 6.3 bar dynamic pressure (when hoist is running) — Working pressure 5 to 7 bar.

As per European Standard EN range 14492-2 – Group of mechanism as per FEM 1Bm / ISO M3.

Model number	Rated capacity (t)	Falls of load chain	Min. headroom (mm)	Lifting speed at rated load (m/min)	Lifting speed at no load (m/min)	Lowering speed at rated load (m/min)	Air cons. at rated load (m³/min)	Sound pressure <sup>(1)</sup> (dB(A))	Hoist weight <sup>(2)</sup> (kg)	Chain size (mm)	Chain weight/ 1m extra lift (kg)
<b>LC2A Industrial Series – Hook mount configuration</b>											
LC2A015SI	1.5	1	409	6.2	11.0	8.5	4.0	78	38	8x24	1.5
LC2A030DI	3.0	2	549	3.0	5.5	4	4.0	78	48	8x24	3.0
LC2A040SI	4.0	1	580	3.9	7.0	4.5	4.5	76	90	13x36	3.8
LC2A060QI	6.0	4	653	1.5	2.5	2.0	4.0	78	74	8x24	6.0
LC2A060SI	6.0	1	717	2.2	3.6	2.7	5.2	79	125	16x45	5.7
LC2A080DI	8.0	2	807	1.8	3.5	2.2	4.4	76	118	13x36	7.6
LC2A120DI	12.0	2	945	1.1	1.8	1.3	5.0	79	170	16x45	11.4
LC2A180TI	18.0	3	1063	0.7	1.2	0.9	5.0	79	277	16x45	17.1
LC2A250QI	25.0	4	1156	0.5	0.9	0.6	5.0	79	324	16x45	23.0

(1) Sound pressure levels are measured per European Standard EN 14492-2

(2) Weight with standard height of lift (3 m) and standard length of control (2 m).



## Trolley Mount Configuration – Additional specifications

Model number	Rated capacity (t)	Trolley + Hoist min. headroom (mm)	Trolley flange adjustment (mm)	Min. inside curve radius (m)	Weight, hoist + trolley (kg) <sup>(2)</sup>			Motorised trolley speed at rated load (m/min)	Trolley air cons. at rated load (m³/min)
					With plain trolley	With geared trolley	With motorised trolley		
LC2A Series hoist under trolley (plain, geared and motorised)									
LC2A015SI	1.5	480	80 - 200	2	86	92	95	17	1.3
LC2A030DI	3.0	592	80 - 200	2	98	100	103	17	1.3
LC2A040SI	4.0	590	80 - 200	2	140	142	145	15	1.3
LC2A060QI	6.0	702	100 - 310	3	200	207	217	15	1.3
LC2A060SI	6.0	730	100 - 310	3	250	257	267	15	1.3
LC2A080DI	8.0	815	100 - 310	3	243	250	260	12	1.3
LC2A120DI	12.0	995	130 - 310	3	335	343	352	12	1.9
LC2A180TI	18.0	1195	140 - 310	5	652	660	652	15	1.9
LC2A250QI	25.0	1240	140 - 310	5	700	708	700	12	1.9

(2) Weight with standard height of lift (3 m) and standard length of control (2 m).

## How to order LIFTCHAIN® hoists

Please specify complete model code as shown. **LIFTCHAIN® CE marked models** are compliant with the European Machinery Directive 2006/42/EC and the European Standard for Power Driven Hoists EN 14492-2. They are fitted as standard with:



- Built-in overload protection.
- Emergency stop button on pendent and built-in main air shut-off valve.



Fabric chain bucket option



Metal chain bucket option



Geared trolley



Motorised trolley



Fixed lug suspension

**LC2A 030DI**

**P3**

**VU**

**3M2**

**J12-E**

Series	Load capacity / Range	Control	Suspension	Lift & ctrl. in m	Options
<b>LC2A</b> LIFTCHAIN® AIR SERIES, 2nd Generation	<b>015SI</b> 1.5 T – 1 fall / Industry range	<b>C1</b> Pull Chain (not available for Mining range)	<b>A</b> Fixed lug	<b>3M2</b> Standard: 3 m height of lift and 2 m of control	<b>A</b> Standard chain bucket <sup>(1)</sup> .
	<b>030DI</b> 3 T – 2 falls / Industry range		<b>C</b> Swivel top hook		
	<b>040SI</b> 4 T – 1 fall / Industry range	<b>P2</b> 1 motor pendent	<b>PU</b> Plain rigid universal trolley (flat or tapered beam) 1,5 to 8 T.	<b>XMx</b> Specify heights of lift and control in metres, e.g. 5M4 = 5 m of lift with 4 m of control	<b>B</b> Large chain bucket <sup>(1)</sup> .
	<b>060SI</b> 6 T – 1 fall / Industry range		<b>PE</b> Plain rigid trolley (flat beam) 12 to 25 T.		
	<b>060QI</b> 6 T – 4 falls / Industry range	<b>P3</b> 2 motor pendent (for hoist with motorised trolley)	<b>PN</b> Plain rigid trolley (tapered beam) 12 to 25 T.		<b>C</b> Extra large chain bucket <sup>(1)</sup> .
	<b>080DI</b> 8 T – 2 falls / Industry range		<b>GU</b> Geared rigid universal trolley (flat or tapered beam) 1,5 to 8 T.		<b>J12</b> Airline filter and lubricator assembly
	<b>120DI</b> 12 T – 2 falls / Industry range		<b>GE</b> Geared rigid trolley (flat beam) 12 T only.		<b>J123</b> Airline filter / regulator / lubricator assembly
	<b>180TI</b> 18 T – 3 falls / Industry range		<b>GN</b> Geared rigid trolley (tapered beam) 12 T only.		<b>K</b> Cast iron pendent.
	<b>250QI</b> 25 T – 4 falls / Industry range		<b>VU</b> Vane motorized rigid universal trolley (flat or tapered beam) 1,5 to 8 T.		<b>L</b> Low Temperature (-20°C) Certified (includes 3.1b material traceability certificates).
			<b>VE</b> Vane motorized rigid trolley (flat beam) 12 to 25 T.		<b>M</b> Material traceability certificate as per EN 10204 3.1b on main load bearing part.
			<b>VN</b> Vane motorized rigid trolley (tapered beam) 12 to 25 T.		<b>P</b> 150 µ marine paint
			<b>RU</b> Gear motorized rigid universal trolley (flat or tapered beam) 6 and 8 T.		<b>T1</b> Spark Resistance <sup>(2)</sup> Package (ATEX Zone 1)
			<b>RE</b> Gear motorized rigid trolley (flat beam) 12 to 25 T.		<b>W</b> Witness test. Specify W1 for ABS or W2 for DNV or W3 for LRS or W4 for Client witness of load test.
			<b>RN</b> Gear motorized rigid trolley (tapered beam) 12 to 25 T.		<b>-E</b> Compliance with the European Machinery Directive.



Solid bronze wheels



Bronze coated bottom hook assembly

(1) See capacity and dimension on following page.

(2) Option T1 includes the following:

**For the hoist:** Cast iron pendent and bronze coated bottom hook assembly.

**For the trolley:** Solid bronze wheels (all trolleys). In addition for motorised trolleys, pinion drive in solid bronze or stainless steel and cast iron pendent. In addition for geared trolleys, bronze coated hand wheel with brass hand chain guide.

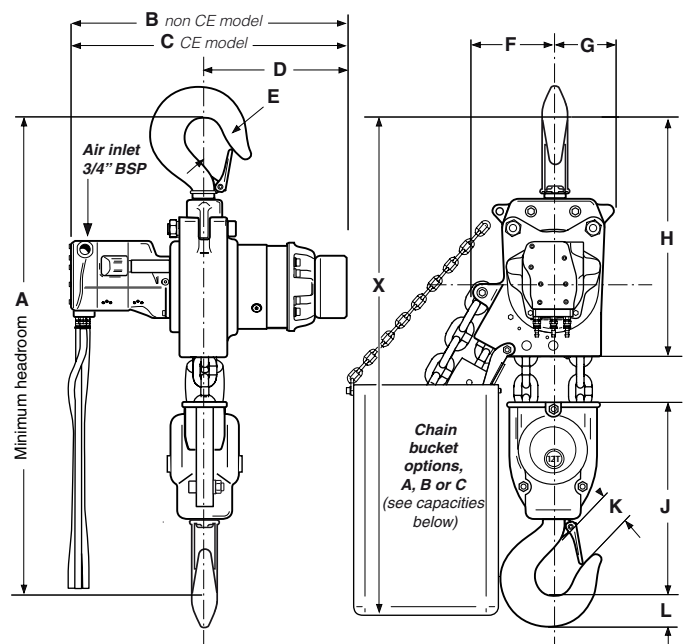
# Air Chain Hoist – 1.5 to 25 t Capacity

## Chain bucket capacity and height – A, B or C options

Hoist model	Chain bucket type	Bucket material	Corresponding height of lift (m)	Height "X" (mm)	Chain bucket type	Bucket material	Corresponding height of lift capacity (m)	Height "X" (mm)	Chain bucket type	Bucket material	Corresponding height of lift capacity (m)	Height "X" (mm)
LC2A015SI	A	Canvas	12	628	B	Canvas	30	728	C	Canvas	60	828
LC2A030DI	A	Canvas	6	657	B	Canvas	15	757	C	Canvas	30	857
LC2A040SI	A	Canvas	12	847	B	Canvas	25	947	C	Metal	40	1107
LC2A060QI	A	Canvas	3	721	B	Canvas	7.5	821	C	Canvas	15	921
LC2A060SI	A	Canvas	12	1065	B	Metal	26	1265	C	Metal	40	1265
LC2A080DI	A	Canvas	6	890	B	Canvas	12.5	990	C	Metal	20	1150
LC2A120DI	A	Canvas	6	1085	B	Metal	13	1285	C	Metal	20	1285
LC2A180TI	A	Canvas	4	1142	B	Metal	8.5	1342	C	Metal	13	1342
LC2A250QI	A	Canvas	3	1189	B	Metal	6.5	1389	C	Metal	10	1389

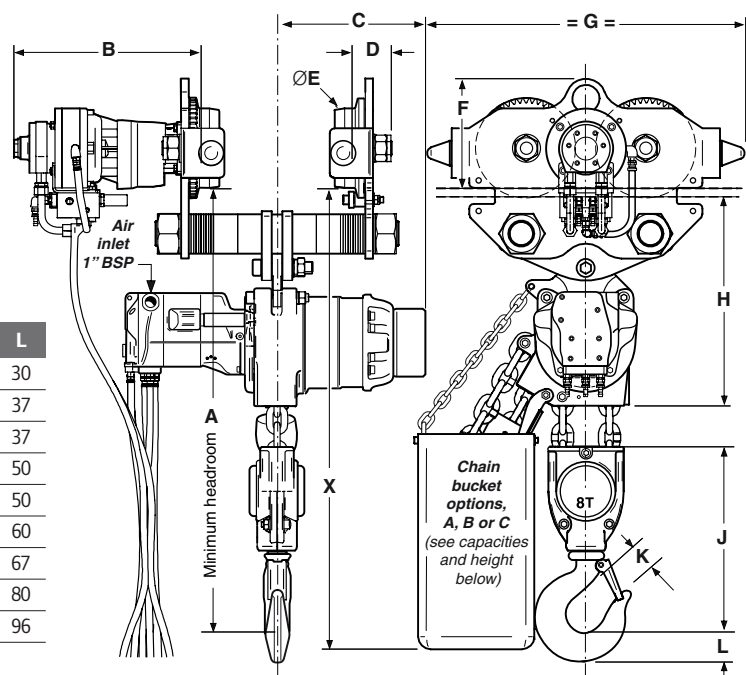
## Dimensions in mm Hook mount configuration

Model number	A	B	C	D	E	F	G	H	J	K	L
LC2A015SI	409	385	410	210	27	112	68	263	146	27	30
LC2A030DI	549	385	410	210	35	112	68	292	257	35	37
LC2A040SI	580	580	606	297	35	183	71	391	190	35	37
LC2A060QI	653	448	474	236	43	112	68	356	296	43	50
LC2A060SI	717	605	630	310	43	233	75	489	228	43	50
LC2A080DI	807	580	606	297	53	140	115	434	373	53	60
LC2A120DI	945	605	630	310	58	175	133	522	424	58	67
LC2A180TI	1063	724	750	386	78	195	98	579	484	78	80
LC2A250QI	1156	724	750	367	87	175	118	626	530	87	96



## Dimensions in mm Trolley mount configuration

Model number	A	B	C	D	E	F	G	H	J	K	L
LC2A015SI	480	190	210	60	120	155	436	334	146	27	30
LC2A030DI	592	190	210	60	120	155	436	334	257	35	37
LC2A040SI	590	284	300	60	120	147	436	400	190	35	37
LC2A060QI	702	290	250	82	160	220	640	405	296	43	50
LC2A060SI	730	290	310	82	160	220	640	502	228	43	50
LC2A080DI	815	380	300	82	160	220	640	440	373	53	60
LC2A120DI	995	410	310	91	160	220	622	572	424	58	67
LC2A180TI	1195	360	390	125	225	270	790	710	484	78	80
LC2A250QI	1240	360	370	125	225	270	790	710	530	87	96

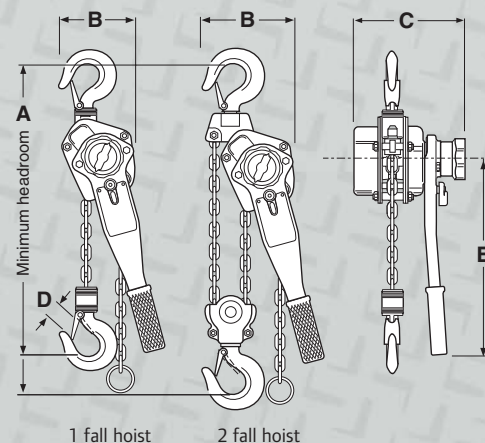




# Manual Lever Hoists

## L5H Premium Lever Hoist - Heavy duty, high performance

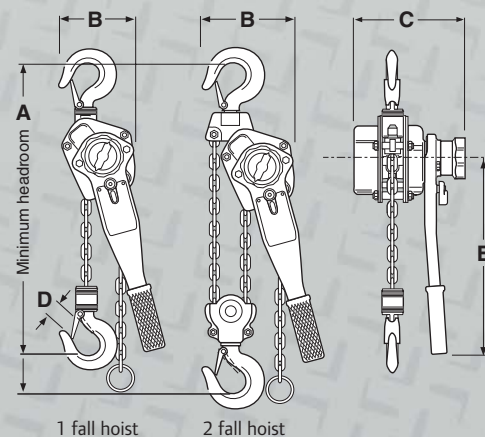
- Torsion-Lok™ brake system ensures positive brake engagement.
- 360° rotation handle needs only 15° handle movement to ratchet loads. A big plus in tight spaces.
- Rugged steel construction.
- Colour coded red/green indicator (load or free chain).
- Simple one-hand free chaining operation.



Model number	Nominal load capacity (ton)	Pull to lift rated load (kg)	Number of falls	Height of lift (m)	Weight with 1.5 m lift (kg)	Chain weight/ 1m extra lift (kg)	DIMENSIONS				
							A min. (mm)	B (mm)	C (mm)	D (mm)	E (mm)
L5H150	0.75	15.9	1	1.5 to 6	6.8	0.86	311	127	152	31	257
L5H300	1.5	18.2	1	1.5 to 6	9.5	1.13	349	147	168	38	368
L5H600	3.0	33.2	1	1.5 to 6	15.4	1.80	425	180	200	47	368
L5H1200	6.0	35.0	2	1.5 to 6	28.2	3.60	565	241	200	51	368

## SLB Industrial Lever Hoist - High performance and durable

- Automatic inertia brake – Engages if load is applied in free-chain mode, helping minimise operator setup error.
- Stamped steel construction for decreased weight and better impact resistance.
- Nickel/chrome plated for improved corrosion resistance.
- Efficient gear reduction for low handle effort.
- Easy one-handed operation for free chain positioning.



Model number	Nominal load capacity (ton)	Pull to lift rated load (kg)	Number of falls	Height of lift (m)	Weight with 1.5 m lift (kg)	Chain weight/ 1m extra lift (kg)	DIMENSIONS				
							A min. (mm)	B (mm)	C (mm)	D (mm)	E (mm)
SLB150	0.75	18.5	1	1.5 to 6	7.0	0.79	330	132	158	29	307
SLB200	1.0	27.0	1	1.5 to 6	7.0	0.79	366	140	163	32	307
SLB300	1.5	24.0	1	1.5 to 6	11.0	1.13	400	145	186	35	378
SLB600	3.0	24.0	1	1.5 to 6	20.0	2.20	521	198	213	44	419
SLB1200	6.0	26.0	2	1.5 to 6	30.4	4.40	640	231	213	50	419

**How to order SLB or L5H Hoists** – Please specify complete model as shown.

Series	Capacity	Height of lift (in feet)	Options	EC compliance
L5H	150 750 kg	5 5 ft (1.5 m)	V Overload protection (available on L5H only)	E Compliance with the European Machinery Directive
SLB	200 1000 kg (SLB Series only)	10 10 ft (3 m)	N Corrosion resistant chain, nickel diffused (available on L5H only)	
	300 1500 kg	15 15 ft (4.5 m)		
	600 3000 kg	20 20 ft (6 m)		
	1200 6000 kg (L5H Series only)			

# Manual Hand Chain Hoists

## VL2 Premium Hand Chain Hoist - Heavy duty, high performance

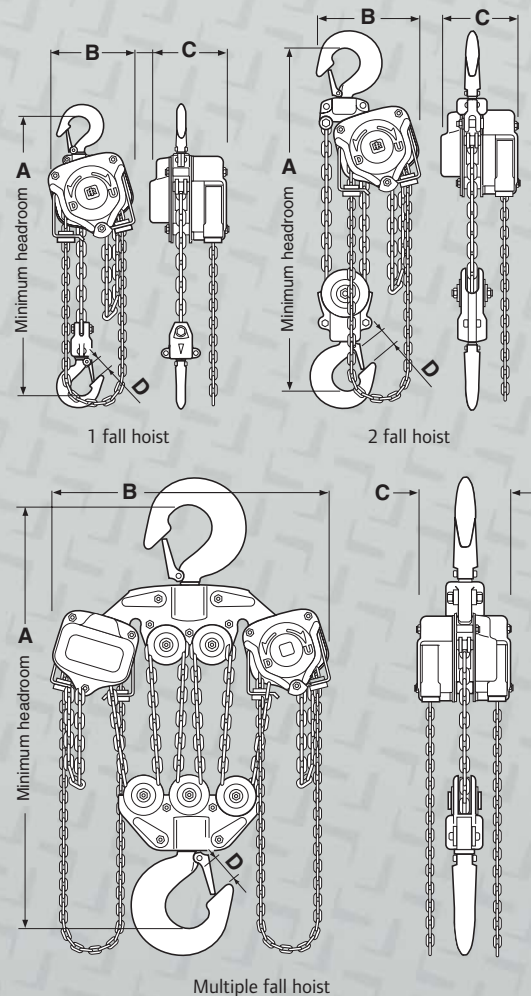
- Best in class hoists, built to be durable.
- High strength gear case and steel frame.
- Exclusive hand chain guide for smooth operation – Helps eliminate jamming when operated away from the load area. Ideal for "pick and drift" applications.
- Efficient gear reduction for easier lifting.
- Open frame design for self-cleaning, quick load sheave inspection and easy hoist maintenance.
- Premium alloy steel grade 100 load chain.
- Overload protection as standard.



VL2 hand chain guides.



VL2-020



## Specifications

Model number	Nominal load capacity (ton)	Pull to lift rated load (kg)	Number of falls	Height of lift (m)	Weight with 3 m lift (kg)	Chain weight/ 1m extra lift (kg)	DIMENSIONS				
							Dwg. Type	A min. (mm)	B (mm)	C (mm)	D (mm)
<b>VL2-005</b>	<b>0.5</b>	25.0	<b>1</b>	3 to 6	9.1	0.53	<b>1</b>	305	144	127	31
<b>VL2-010</b>	<b>1.0</b>	33.2	<b>1</b>	3 to 6	16.4	0.85	<b>1</b>	346	157	148	34
<b>VL2-015</b>	<b>1.5</b>	33.6	<b>1</b>	3 to 6	20.4	1.10	<b>1</b>	371	175	148	38
<b>VL2-020</b>	<b>2.0</b>	34.5	<b>1</b>	3 to 6	22.7	1.40	<b>1</b>	425	203	179	41
<b>VL2-030</b>	<b>3.0</b>	34.5	<b>2</b>	3 to 6	23.6	2.20	<b>2</b>	505	206	148	47
<b>VL2-050</b>	<b>5.0</b>	38.6	<b>2</b>	3 to 6	42.6	3.55	<b>2</b>	635	264	179	51
<b>VL2-080</b>	<b>8.0</b>	40.9	<b>3</b>	3 to 6	68.3	5.30	<b>2</b>	740	346	179	71
<b>VL2-100</b>	<b>10.0</b>	40.9	<b>4</b>	3 to 6	85.5	7.10	<b>2</b>	760	367	179	71
<b>VL2-150</b>	<b>15.0</b>	2 x 41	<b>6</b>	3 to 6	179.5	10.70	<b>3</b>	851	746	208	90
<b>VL2-200</b>	<b>20.0</b>	2 x 41	<b>8</b>	3 to 6	220.4	14.20	<b>3</b>	870	873	208	90

## How to order VL2 Hoists

Please specify complete model code as shown.

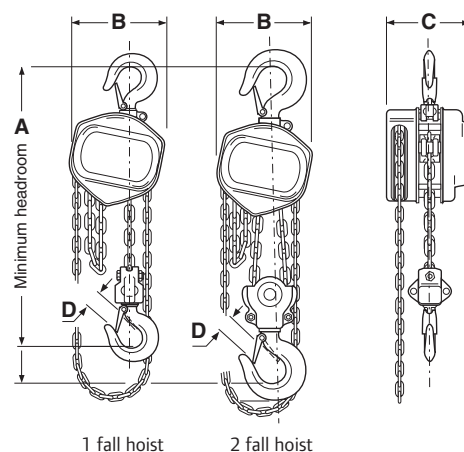
VL2 - 080		CP	10	8V	NH	-	E
Series	Capacity	Spark resistance	Height of lift	Hand chain length	Options	EC compliance	
VL2	<b>005</b> 0.5 ton	<b>050</b> 5 tons	- Standard	<b>10</b> 10 ft (3 m)	<b>8V</b> 8 ft (2.4 m)	<b>N</b> Corrosion & spark resistant load chain <b>H</b> Corrosion & spark resistant hand chain <b>P</b> Marine paint <b>S</b> Fabric chain bucket	<b>E</b> Compliance with the European Machinery Directive
	<b>010</b> 1 ton	<b>080</b> 8 tons	<b>CP</b> Copper plated	<b>15</b> 15 ft (4.5 m)	<b>XXV</b> Specify length		
	<b>015</b> 1.5 ton	<b>100</b> 10 tons	<b>SB</b> Solid bronze	<b>20</b> 20 ft (6 m)			
	<b>020</b> 2 tons	<b>150</b> 15 tons		<b>XX</b> Specify length			
	<b>030</b> 3 tons	<b>200</b> 20 tons					

## SLB Hand Chain Hoist - High performance and durable

- Stamped steel construction for decreased weight and better impact resistance.
- Nickel/chrome plated for improved corrosion resistance.
- Efficient gear reduction for easier lifting.
- Zinc plated hand chain as standard.
- Standard overload protection to reduce abuse and increase safety.

### Specifications

Model number	Nominal load capacity (ton)	Pull to lift rated load (kg)	Number of falls	Height of lift (m)	Weight with 3 m lift (kg)	Chain weight/ 1m extra lift (kg)	DIMENSIONS			
							A min. (mm)	B (mm)	C (mm)	D (mm)
<b>SMB005</b>	<b>0.5</b>	25	<b>1</b>	3 to 6	10.7	0.53	325	131	137	28
<b>SMB010</b>	<b>1.0</b>	29	<b>1</b>	3 to 6	12.2	0.80	350	151	153	30
<b>SMB020</b>	<b>2.0</b>	35	<b>1</b>	3 to 6	19.3	1.40	463	192	176	38
<b>SMB030</b>	<b>3.0</b>	45	<b>1</b>	3 to 6	32.0	2.20	530	238	204	45
<b>SMB050</b>	<b>5.0</b>	38	<b>2</b>	3 to 6	41.0	3.55	710	285	188	55



### How to order SMB Hoists

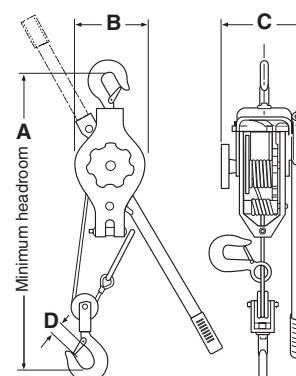
Please specify complete model code as shown.

Series	Capacity		Height of lift (in feet)		Hand chain length		Options
<b>SMB</b>	<b>005</b> 0.5 ton	<b>020</b> 2 tons	<b>10</b> 10 ft (3 m)	<b>20</b> 20 ft (6 m)	<b>8V</b> 8 ft (2.4 m)	<b>XXV</b> Specify length	<b>N</b> Corrosion & spark resistant load chain
	<b>010</b> 1 ton	<b>030</b> 6000 kg	<b>15</b> 15 ft (4.5 m)	<b>XX</b> Specify length			

## Ratchet Pullers

### P & C Ratchet Pullers

- 4:1 design factor for pulling applications.
- All models (except P15H) can be used in one or two falls configuration.
- Galvanised wire rope. C400S is fitted with non-conductive synthetic strap.
- **P15 Series:** all steel construction, plated for long life.
- **C400 Series:** lightweight aluminium design. Reversible handle for easy position changes.



### Specifications

Model number	Nominal load capacity (kg)	Pull to lift rated load (kg)	Number of falls	Pulling distance (m)	Cable diameter (mm)	Net weight (kg)	A min. (mm)	B (mm)	C (mm)	D (mm)
<b>P15H</b>	<b>450</b>	45	<b>1</b>	4.6	4.8	3.9	457	114	89	19
<b>P15D3H</b>	<b>450 / 900</b>	45 / 47	<b>1 or 2</b>	4.6 / 2.3	4.8	4.8	457 / 610	114	89	19
<b>C400H</b>	<b>770 / 1540</b>	26 / 28	<b>1 or 2</b>	6.0 / 3.0	6.3	7.3	432 / 559	127	178	22
<b>C400S</b>	<b>900 / 1800</b>	29 / 31	<b>1 or 2</b>	3.6 / 1.8	—	7.3	432 / 559	127	178	22



# Manual Trolleys

## RT & GT Trolleys - Durable plain and geared trolleys

- 5:1 design factor for use with manual or powered hoists.
- Strong and durable steel construction, includes drop stops.
- Cast iron wheels with sealed, lube for life ball bearings.
- Universal profile to fit IPN and IPE beams.



PT010

**PT Series plain trolleys:** Available from 0.5 to 10 ton capacity.

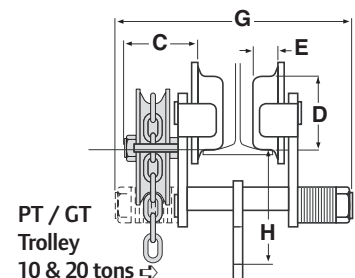
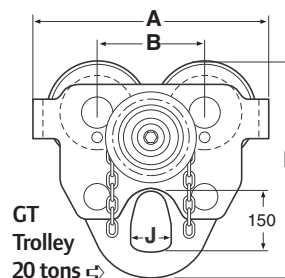
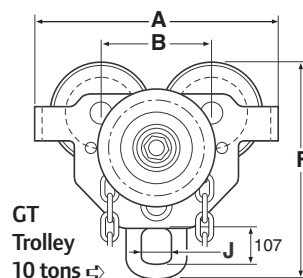
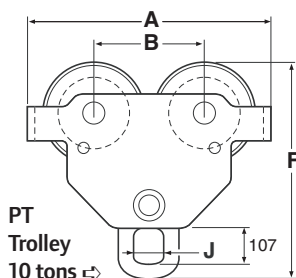
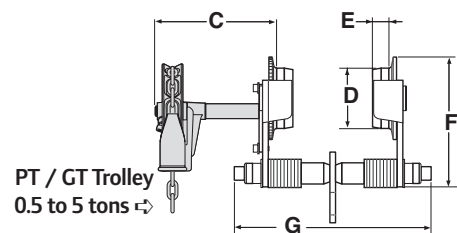
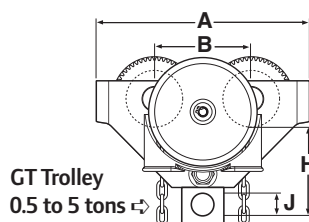
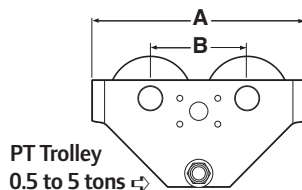


GT10-12-10

**GT Series geared trolleys:**  
Available from 1 to 20 ton capacity.  
Standard hand chain height 3m, or more on demand.

## Specifications

Model number PLAIN TROLLEYS	Model number GEARED TROLLEY	Nominal load capacity (ton)	Flange adjustment (mm)	Minimum beam height (mm)	Minimum curve radius (m)	Net weight	
						PLAIN TROLLEY (kg)	GEARED TROLLEY (kg)
PT005-8		0.5	67-203	102	0.92	8.9	—
PT010-8	GT010-8-10	1	76-203	127	0.92	13.9	19.8
PT020-8	GT020-8-10	2	84-203	153	1.22	27.4	33.3
PT030-8	GT030-8-10	3	100-203	178	1.07	33.2	39
PT050-8	GT050-8-10	5	118-203	203	1.53	50	56
PT100-12	GT100-12-10	10	178-305	254	2.10	93	103
	GT200-12-10	20	178-305	305	3.50	—	245



## Dimensions (mm)

Model number	A	B	C	D	E	F	G	H	J
PT005-8	254	114	—	53	19	169	311	149	40
PT010-8	330	132	—	70	19	176	327	151	40
PT020-8	380	172	—	108	29	190	350	154	40
PT030-8	356	162	—	115	29	218	359	200	65
PT050-8	394	180	—	115	40	249	397	207	65
PT100-12	455	200	—	151	51	490	528	300	82
GT010-8-10	330	132	230	70	19	176	327	151	40
GT020-8-10	380	172	228	108	29	190	350	154	40
GT030-8-10	356	162	237	115	29	218	359	200	65
GT050-8-10	394	180	247	115	40	249	397	207	65
GT100-12-10	455	200	—	151	51	490	528	300	82
GT200-12-10	642	300	—	200	66	622	572	266	110

## How to order PT or GT Trolleys

Please specify complete model code as shown.

**GT 030-8-10 SB**

Series	Capacity	Hand chain	Option
PT Plain	005-8 0.5 ton	10 10 ft (3 m standard length)	SB Bronze wheels
GT Geared	010-8 1 ton		
	020-8 2 tons		
	030-8 3 tons	XX Specify length	
	050-8 5 tons		
	100-12 10 tons		
	200-12 20 tons		

# Other Ingersoll Rand Material Handling Products

## Pneumatic Balancers, from 1 to 900 kg - Enclosed Rail Systems

Designed to handle virtually all your lifting, suspending and positioning applications up to 900 kg, Ingersoll Rand pneumatic balancers are used throughout global industry because of their outstanding productivity, ergonomics, and value.

They are available with 3 different control options.

Enclosed rail forms the backbone of any material handling system.

Ingersoll Rand offers 3 enclosed rail profiles in lightweight aluminum.

All the accessories, such as hanger kits, end trucks, trolleys, safety cables, and end stops, are provided to construct a complete ceiling supported or freestanding workstation crane system.



EAW and  
ZAW Air Balancers.  
Aluminium Enclosed Rails

## Air Winches, from 1.5 to 10 tons lifting capacity

Setting the standards in winch technology with time savings, space savings and enhanced safety, Ingersoll Rand's line of high quality air winches are known throughout the world for their rugged dependability and quality.

These winches can be made in a variety of configurations to suit your most challenging applications.



FA5 Infinity,  
5 ton capacity Air Winch,

## Air and Hydraulic Hoists - Hoist / Trolley Combinations, from 1.5 to 100 ton capacity

The Liftchain LC2A Series is the result of a long experience in heavy load lifting applications in the most difficult and extreme environments around the world. Setting new standards for safety and reliability, the LC2A series is intended for tough industrial applications on offshore oil rigs, shipyards, petrochemical, refineries, foundries, steels mills, mining, tunneling, etc...

They are available in hook mount version, trolley mount combination and also low headroom trolley mount combination for applications where space is particularly restricted.

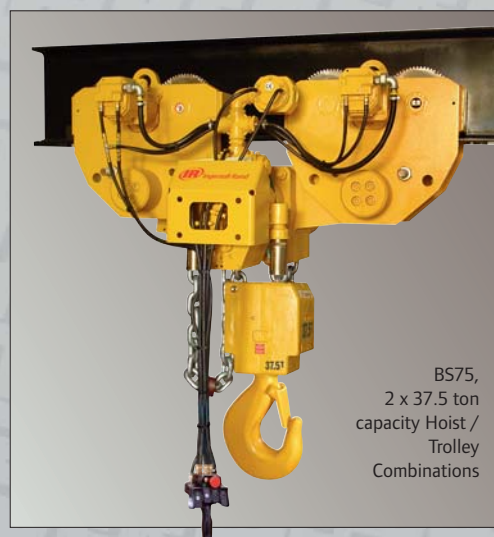


LC2A250,  
25 ton capacity  
Low Headroom  
Hoist / Trolley  
Combination

## B.O.P. Articulated Handling System, from 25 to 200 ton lifting capacity

For over 30 years Ingersoll Rand has designed, manufactured, and serviced hundreds of Blowout Preventer Handling Systems for all the major drilling contractors and oil companies in the industry.

Our experience with this complex and critical lifting application enables us to provide the type of equipment, engineering support, and certifications that these projects require.



BS75,  
2 x 37.5 ton  
capacity Hoist /  
Trolley  
Combinations



Ingersoll Rand Industrial Technologies provides products, services and solutions that enhance our customers' energy efficiency, productivity and operations. Our diverse and innovative products range from complete compressed air systems, tools and pumps to material and fluid handling systems and environmentally friendly microturbines. We also enhance productivity through solutions created by Club Car®, the global leader in golf and utility vehicles for businesses and individuals.

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