

When Tough Just Isn't Enough

Liftstar and Pullstar Winches 300-7,500 kg (660-16,530 lb)

Since 1924, Ingersoll Rand has built extremely durable and reliable winches and hoists. Designed with premium features and built using rugged cast iron and steel, Ingersoll Rand doesn't take shortcuts

and never uses inferior components. Ingersoll Rand Liftstar and Pullstar winches feature a tough, yet compact design that helps them fit almost anywhere. Their low maintenance,



highly reliable gear motors have only two moving parts making them virtually maintenance free – even after being stored or inactive for down times. Designed to work in harsh environments, Ingersoll Rand winches are the gold standard. They are often copied but never equaled. Trusted by oilmen, offshore workers, miners and heavy construction crews around the globe, you can count on Ingersoll Rand winches to get the job done.

Liftstar and Pullstar winch features:

- Rugged cast iron and steel construction for extreme durability
- · Light weight and compact design for portability
- · Gear motor for low maintenance
- High efficiency planetary gear box for smooth operation
- Standard internal muffler that reduces noise
- Lift and Shift variable speed lever for precise control and built-in safety

- Individual load testing before shipment and delivered with manufacturer's test certificate for quality assurance
- Easily configured to meet worldwide standards including ANSI/ASME B30.7 and CF FFM Classification 1 Bm and other 3rd party type approvals
- · Built using nearly a century of experience and constructed in advanced manufacturing facilities with ISO 9001 quality levels















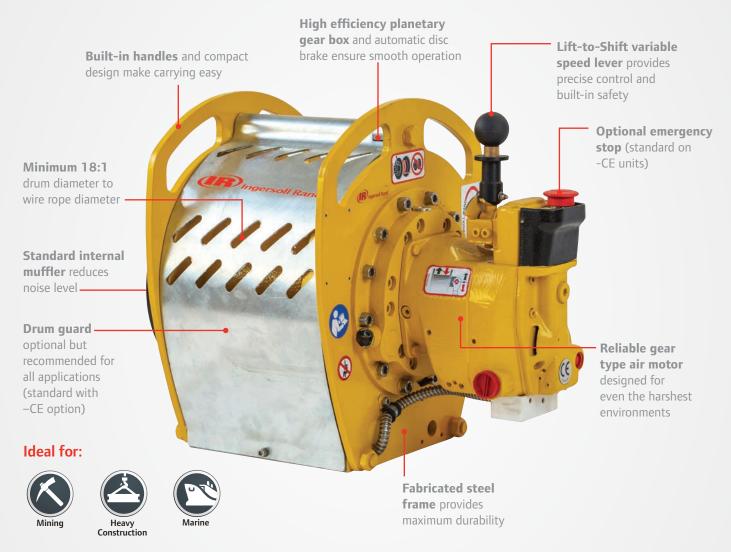




Liftstar Portable Air Winches

300-1,500 kg (660-3,300 lb)

With a tough, yet compact design, Ingersoll Rand Liftstar portable winches are easy to carry. Their rugged gear motors have only two moving parts which makes them virtually maintenance free even after being stored. They are easy to transport wherever you need them and rugged enough to give you the lifting power you need no matter how harsh the conditions.



Lifting Ratings	at 5:1 design fa	ctor and perforn	nance at 6.3 bar	(90 psi) at air inlet when winch is operating							
	Line Pull Capacity			Lifting Speed at Top Layer (1)	Air Consumption with Rated Load	Air Volume Needed to Move Rated Load at Top Layer	Sound Level as per EN 14492-1	Drum Cap	pacity ⁽²⁾	Net Weight	
Model	First Layer kg (lb)	Mid Drum kg (lb)	Top Layer kg (lb)	m/min (fpm)	m³/min (ft³/min)	3 m (10 ft)	dB(A)	Max Rope Length m (ft)	Rope Diameter mm (in)	kg (lb)	
LS2-300R-L	300 (660)	300 (660)	300 (660)	40 (131)	4 (141)	0.3 (10.8)	92	150 (492)	5 (3/16)	42 (93)	
LS2-300RGC-L	300 (660)	300 (660)	300 (660)	40 (131)	4 (141)	0.3 (10.8)	92	307 (1,007)	5 (3/16)	49 (108)	
LS2-600R-L	600 (1,320)	600 (1,320)	600 (1,320)	20 (66)	4 (141)	0.6 (21.4)	92	89 (292)	6.5 (1/4)	42 (93)	
LS2-600RGC-L	600 (1,320)	600 (1,320)	600 (1,320)	20 (66)	4 (141)	0.6 (21.4)	92	183 (600)	6.5 (1/4)	49 (108)	
LS2-1500R-L	1,500 (3,300)	1,500 (3,300)	1,500 (3,300)	10 (32)	4.8 (169)	1.5 (53.0)	90	61 (200)	10 (3/8)	67 (148)	
LS2-1500RGC-L	1,500 (3,300)	1,500 (3,300)	1,500 (3,300)	10 (32)	4.8 (169)	1.5 (53.0)	90	128 (420)	10 (3/8)	79 (174)	

⁽¹⁾ Top layer speed is based on rated capacity (2) Wire rope is tightly wound with no freeboard.



Pullstar Portable Air Winches

700-2,000 kg (1,540-4,400 lb)

Ingersoll Rand Pullstar portable winches are built for use on horizontal surfaces with little to no incline. Featuring a rugged, compact design Pullstar portable winches can easily be moved to wherever you need them. Pullstar portable winches include a highly reliable gear motor and a free spooling clutch for rapid manual rope pay out.



Ideal for:





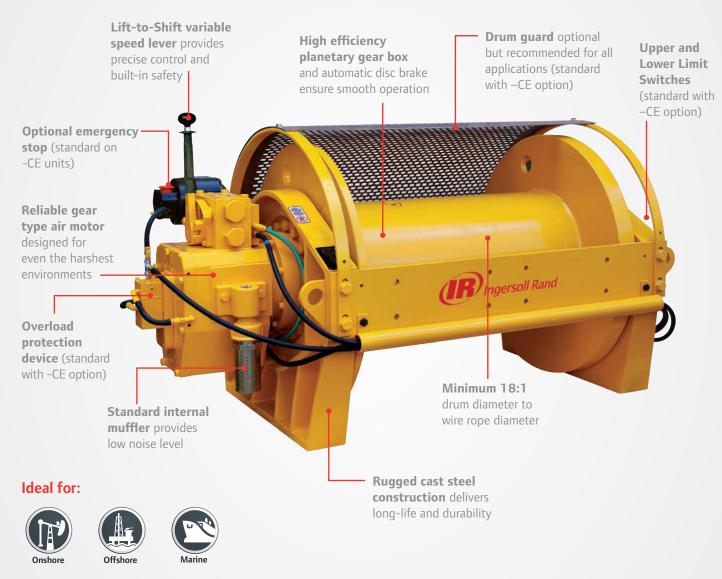


Pulling Ratings a	t 3.5:1 design f	actor and perfor	mance at 6.3 bar	r (90 psi) at air inlet when winch is operating							
	Line Pull Capacity			Pulling Speed at Top Layer (1)	Air Consumption with Rated Load	Air Volume Needed to Move Rated Load at Top Layer	Sound Level as per EN 14492-1	Drum Ca	pacity ⁽²⁾	Net Weight	
Model	First Layer kg (lb)	Mid Drum kg (lb)	Top Layer kg (lb)	m/min (fpm)	m³/min (ft³/min)	3 m (10 ft)	dB(A)	Max Rope Length m (ft)	Rope Diameter mm (in)	kg (lb)	
PS2-1000R-L	1,000 (2,200)	850 (1,870)	700 (1,540)	20 (66)	4 (141)	0.6 (21.4)	92	89 (292)	6.5 (1/4)	38 (84)	
PS2-1000RGC-L	1,000 (2,200)	850 (1,870)	700 (1,540)	20 (66)	4 (141)	0.6 (21.4)	92	183 (600)	6.5 (1/4)	45 (99)	
PS2-2400R-L	2,400 (5,280)	2,150 (4,730)	2,000 (4,400)	6 (20)	4.8 (169)	2.4 (84.8)	90	60 (197)	11 (7/16)	85 (187)	
PS2-2400RGC-L	2,400 (5,280)	2,150 (4,730)	2,000 (4,400)	6 (20)	4.8 (169)	2.4 (84.8)	90	127 (417)	11 (7/16)	100 (220)	

Liftstar Heavy Air Winches

2,000-5,000 kg (4,400-11,000 lb)

Ingersoll Rand Liftstar heavy winches incorporate a cast iron and steel design with a rugged gear motor for ultimate durability. They are available with options to suit any need no matter where in the world you operate. Reliable and simple to maintain, Liftstar heavy air winches are specifically built for the types of environments where lesser winches would fail.



Lifting Ratings	at 5:1 design fa	ctor and perforn	nance at 6.3 bar (90 psi) at	air inlet whe	n winch is opera	ating			
	Line Pull Capacity			Lifting Speed at Top Layer (1)	Air Consumption with Rated Load	Air Volume Needed to Move Rated Load at Top Layer	Sound Level as per EN 14492-1	Drum Cap	oacity ⁽²⁾	Net Weight
Model	First Layer kg (lb)	Mid Drum kg (lb)	Top Layer kg (lb)	m/min (fpm)	m³/min (ft³/min)	3 m (10 ft)	dB(A)	Rope Length m (ft)	Rope Diameter mm (in)	kg (lb)
LS2000R-L	2,800 (6,170)	2,400 (5,290)	2,000 (4,400)	20 (66)	10 (353)	1.5 (53.5)	95	156 (512)	13 (1/2)	230 (507)
LS2000RGC-L	2,800 (6,170)	2,400 (5,290)	2,000 (4,400)	20 (66)	10 (353)	1.5 (53.5)	95	230 (755)	13 (1/2)	283 (624)
LS5000R-L	6,500 (14,330)	5,750 (12,670)	5,000 (11,000)	10 (33)	10 (353)	3.0 (107.0)	87	224 (494)	20 (3/4)	645 (1,422)
LS5000RGC-L	6,500 (14,330)	5,750 (12,670)	5,000 (11,000)	10 (33)	10 (353)	3.0 (107.0)	87	473 (1,043)	20 (3/4)	760 (1,676)

⁽¹⁾ Top layer speed is based on rated capacity. (2) Wire rope is tightly wound with no freeboard.

Pullstar Heavy Air Winches

2,250-7,500 kg (4,950-16,530 kg)

Ingersoll Rand Pullstar heavy winches are designed specifically for pulling applications. They offer a 3.5:1 design factor and come standard with a disengaging clutch to guickly deploy the wire rope. Pullstar heavy winches use a low maintenance, highly reliable gear motor for high torque output and smooth starts and stops. When you combine the gear motor with cast iron and steel construction, Ingersoll Rand Pullstar heavy air winches are one of the most durable pulling winches available.

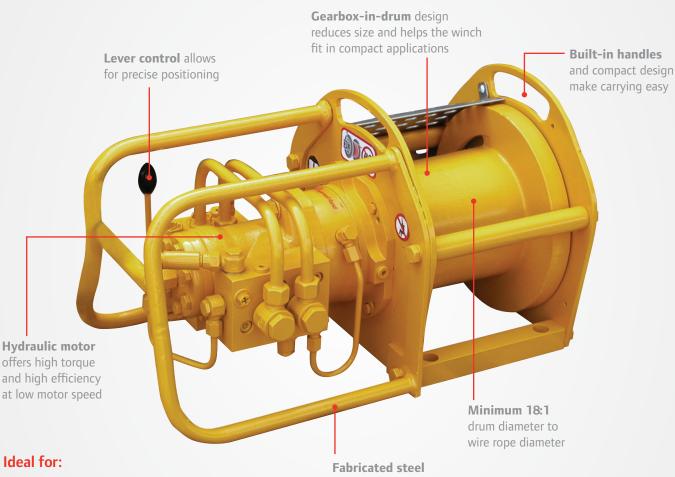


	Line Pull Capacity			Pulling Speed at Top Layer (1)	peed at Consumption Needed to Move Top with Rated Load			Drum Capacity ⁽³⁾		Net Weight
Model	First Layer kg (lb)	Mid Drum kg (lb)	Top Layer kg (lb)	m/min (fpm)	m³/min (ft³/min)	3 m (10 ft)	14492-1 dB(A)	Rope Length m (ft)	Rope Diameter mm (in)	kg (lb)
PS4000R-L	4,000 (8,800)	3,250 (7,150)	2,500 (5,500)	7 (23)	12 (424)	5.1 (184.3)	95	156 (512)	13 (1/2)	225 (496)
PS4000RGC-L ⁽²⁾	3,600 (7,920)	2,925 (6,435)	2,250 (4,950)	8 (25)	12 (424)	4.5 (169.6)	95	230 (755)	13 (1/2)	278 (613)
PS10000R-L	10,000 (22,000)	8,740 (19,265)	7,500 (16,530)	4 (14)	12 (424)	9.0 (302.9)	87	224 (735)	20 (3/4)	640 (1,411)
PS10000RGC-L	10,000 (22,000)	8,740 (19,265)	7,500 (16,530)	4 (14)	12 (424)	9.0 (302.9)	87	473 (1,552)	20 (3/4)	755 (1,664)

Liftstar/Pullstar Portable Hydraulic Winches

600-700 kg (1,320-1,540 lb)

Ingersoll Rand's hydraulic Liftstar and Pullstar winches offer solid, cast iron and steel construction in a compact package that is easy to deploy wherever you need it. These winches are tough enough to work reliably day in and day out no matter where you put them. They feature dependable orbital hydraulic motors for high efficiency performance. Trusted for years wherever there are extreme lifting or pulling needs, Ingersoll Rand hydraulic winches are the ideal choice.









Fabricated steel frame provides maximum durability

	L				Lifting Speed Motor at top layer Displacement		Rated Flow	Drum Capacity ⁽²⁾		Net Weight
Model	First Layer kg (lb)	Mid Drum kg (lb)	Top Layer kg (lb)	m/min (fpm)	cm³/rev (in³/rev)	bar (psi)	l/min (gal/min)	Rope Length m (ft)	Rope Diameter mm (in)	kg (lb)
LS2-600H40-L	800 (1,750)	700 (1,535)	600 (1,320)	20 (66)	40 (2.44)	100 (1,450)	25 (6.6)	89 (292)	6.5 (1/4)	52 (115)
LS2-600H40GC-L	800 (1,750)	700 (1,535)	600 (1,320)	20 (66)	40 (2.44)	100 (1,450)	25 (6.6)	183 (600)	6.5 (1/4)	59 (130)
Pulling Ratings at	3.5:1 design f	actor and per	formance at 6	.3 bar (90 p	si) at air inlet	when winch i	s operating			
PS2-1000H40-L	1,000 (2,200)	850 (1,870)	700 (1,540)	20 (66)	40 (2.44)	120 (1,740)	25 (6.6)	89 (292)	6.5 (1/4)	52 (115)
PS2-1000H40GC-L	1,000 (2,200)	850 (1,870)	700 (1,540)	20 (66)	40 (2.44)	120 (1,740)	25 (6.6)	183 (600)	6.5 (1/4)	59 (130)

⁽¹⁾ Top layer speed is based on rated capacity. (2) Wire rope is tightly wound with no freeboard.



Liftstar Heavy Hydraulic Winches

2,000-5,000 kg (4,400-11,000 lb)

Ingersoll Rand heavy hydraulic Liftstar winches are designed for just about any lifting or application you can throw at them. They feature reliable hydraulic motors for capacities up to 5,000 kg. They can be mounted on a rigid support and operate in any position provided the drum is horizontal. With enclosed gear boxes for protection and cast iron and steel construction for durability, Liftstar heavy hydraulic winches will keep your production operating for years.

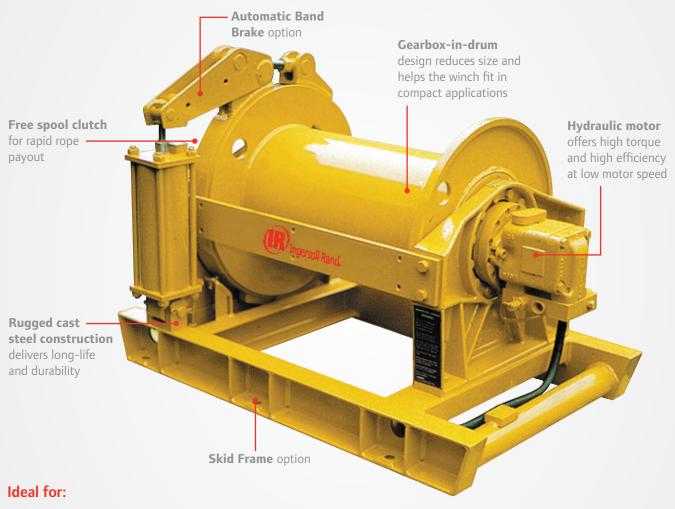


Lifting Ratings at 5:1 design factor and performance at 6.3 bar (90 psi) at air inlet when winch is operating											
	Line Pull Capacity			Lifting Speed at Top Layer		Operating Pressure	Rated Flow	Drum Ca	pacity ⁽²⁾	Net Weight	
Model	First Layer kg (lb)	Mid Drum kg (lb)	Top Layer kg (lb)	m/min (fpm)	m³/rev (in³/rev)	bar (psi)	l/min (gal/ min)	Rope Length m (ft)	Rope Diameter mm (in)	kg (lb)	
LS2000H30-L	2,800 (6,200)	2,400 (5,300)	2,000 (4,400)	30 (98)	30 (1.80)	150 (2,180)	65 (17.2)	156 (512)	13 (1/2)	300 (661)	
LS2000H30GC-L	2,800 (6,200)	2,400 (5,300)	2,000 (4,400)	30 (98)	30 (1.80)	150 (2,180)	65 (17.2)	313 (1,026)	13 (1/2)	353 (778)	
LS5000H75-L	6,500 (14,330)	5,750 (12,665)	5,000 (11,000)	30 (98)	75 (4.60)	150 (2,180)	142 (37.5)	219 (718)	20 (3/4)	730 (1,609)	
LS5000H75GC-L	6,500 (14,330)	5,750 (12,665)	5,000 (11,000)	30 (98)	75 (4.60)	150 (2,180)	142 (37.5)	463 (1,519)	20 (3/4)	987 (2,176)	

Pullstar Heavy Hydraulic Winches

2,930-7,000 kg (6,440-15,430 lb)

Ingersoll Rand heavy hydraulic Pullstar winches are designed for pulling. With reliable hydraulic motors and a solid steel construction Pullstar winches are ideally suited for harsh conditions. Whatever your pulling needs, Ingersoll Rand heavy hydraulic winches are the perfect solution.



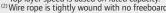






Pulling Ratings a	t 3.5:1 design fac	ctor and perform	nance at 6.3 ba	ar (90 psi) at	air inlet whe	n winch is op	erating			
	Line Pull Capacity			Lifting Speed at top layer	Motor Displacement	Operating Pressure	Rated Flow	Drum Ca	pacity ⁽²⁾	Net Weight
Model	First Layer kg (lb)	Mid Drum kg (lb)	Top Layer kg (lb)	m/min (fpm)	m³/rev (in³/rev)	bar (psi)	l/min (gal/min)	Rope Length m (ft)	Rope Diameter mm (in)	kg (lb)
PS4000H30-L	4,000 (8,800)	3,465 (7,620)	2,930 (6,440)	20 (66)	30 (1.80)	180 (2,610)	40 (10.6)	156 (512)	13 (1/2)	210 (463)
PS4000H30GC-L	4,000 (8,800)	3,465 (7,620)	2,930 (6,440)	20 (66)	30 (1.80)	180 (2,610)	40 (10.6)	313 (1,026)	13 (1/2)	235 (518)
PS10000H75-L	10,000 (22,000)	8,300 (18,290)	7,000 (15,430)	13 (43)	75 (4.60)	220 (3,190)	75 (19.8)	219 (718)	20 (3/4)	550 (1,213)
PS10000H75GC-L	10,000 (22,000)	8,300 (18,290)	7,000 (15,430)	13 (43)	75 (4.60)	220 (3,190)	75 (19.8)	463 (1,519)	20 (3/4)	615 (1,356)

⁽¹⁾ Top layer speed is based on rated capacity.
(2) Wire rope is tightly wound with no freeboard.





A Variety of Options



- Drum guard for non-CE models
- Airline accessories



Emergency stop

- · Material traceability certificates on main load bearing parts
- · Marine paint finish
- Witness test



Overload protection

- CE compliance with European Machinery Directive
- · Estop, overload protection and Drum guard all part of CE option

Special Orders



- · Design for custom capacities
- Custom control systems
- Custom product modifications
- · Witness testing and complete certification to most global standards

A significant portion of our business is providing customized solutions for specific applications. We recognize that not all jobs are created equal and that the most cost-effective solutions may not be in an offthe-shelf item. We've designed and manufactured winches and hoists for applications as simple as moving bags of lettuce, to as intricate as installing critical payloads on space vehicles, including high capacity loads 100 tons and above.

- Full data package with CAD drawings
- · Dedicated project management for your project from conception to delivery
- Onsite services available including presale and evaluation







A Tradition of Proven Reliability, Efficiency and Productivity



No matter where you are located, Ingersoll Rand is committed to serving and providing you with the necessary information with regard to our products and services. Our world-wide network of distributors, certified technicians and engineers are a telephone call away — ready to support you with innovative and cost-effective solutions that will keep your business running at peak performance.

Global Parts and Services

Ingersoll Rand winches are built to last in even the harshest conditions. We are committed to helping you keep your operation running, no matter where your facility is located. We offer a full range of parts and accessories. Plus Ingersoll Rand's global network of factory trained and authorized technicians can install, repair, test and maintain any winch. Service capabilities include:

- · Load test and recertifications
- · System inspections

• Equipment refurbishments

- · Installation and start-up assistance
- Inspector and operator training
- · Service and repair

For More Information



www.ingersoll rand products.com/lifting



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Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a \$12 billion global business committed to a world of sustainable progress and enduring results.









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