

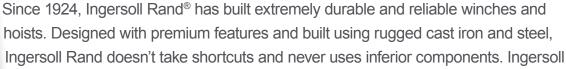


LIFTSTAR AND PULLSTAR WINCHES

300-7,500 kg (660-16,530 lb)

WHEN TOUGH JUST ISN'T ENOUGH

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





Rand Third Generation Winches are the workhorse winches of the Ingersoll Rand winch line. They have all the features you need and none you don't to get the job done. 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.

THIRD GENERATION WINCH FEATURES:

- Rugged cast construction for extreme durability
- · Radial piston motor for smooth, reliable power
- Gearbox in drum design saves space
- 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
- 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.



	Line Pull Capacity			Lifting Air Speed at Top	Air Volume Needed to Move Rated Load	Sound Level as per EN	Drum Capacity ⁽²⁾		Net Weight	
Model	First Layer kg (lb)	Mid Drum kg (lb)	Top Layer kg (lb)	Layer ⁽¹⁾ m/min (fpm)	m³/min (ft³/min)	at Top Layer 3 m (10 ft)	14492-1 dB(A)	Rope Length m (ft)	Rope Diameter mm (in)	kg (lb)
LS2-300R-L	410 (900)	355 (780)	300 (660)	40 (131)	4 (141)	0.3 (10.8)	92	150 (492)	5 (3/16)	42 (93)
LS2-300RGC-L	410 (900)	355 (780)	300 (660)	40 (131)	4 (141)	0.3 (10.8)	92	307 (1,007)	5 (3/16)	49 (108)
LS2-600R-L	800 (1,750)	700 (1,535)	600 (1,320)	20 (66)	4 (141)	0.6 (21.4)	92	89 (292)	6.5 (14)	42 (93)
LS2-600RGC-L	800 (1,750)	700 (1,535)	600 (1,320)	20 (66)	4 (141)	0.6 (21.4)	92	183 (600)	6.5 (14)	49 (108)
LS1500R-L	1,800 (4,000)	1,650 (3,650)	1,500 (3,300)	7 (23)	5 (177)	2.1 (77.0)	88	57 (187)	10 (3/8)	67 (148)
LS1500RGC-L	1,800 (4,000)	1,650 (3,650)	1,500 (3,300)	7 (23)	5 (177)	2.1 (77.0)	85	120 (394)	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.

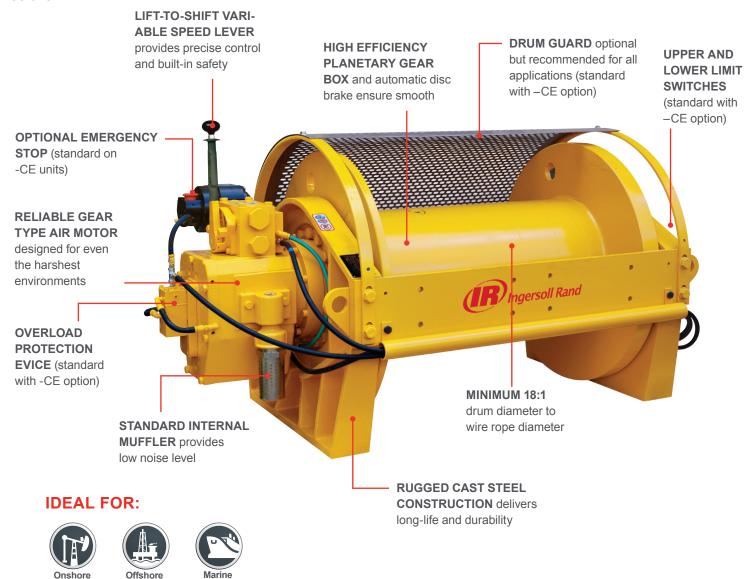


	Line Pull Capacity			Тор		as per EN	Drum Capacity ⁽²⁾		Net Weight	
Model	First Layer kg (lb)	Mid Drum kg (lb)	Top Layer kg (lb)	Layer (1) m/min (fpm)	m³/min (ft³/min)	at Top Layer 3 m (10 ft)	14492-1 dB(A)	Rope Length m (ft)	Rope Diameter mm (in)	kg (lb)
PS2-1000R	1,000 (2,200)	850 (1,870)	700 (1,540)	20 (66)	4 (141)	0.6 (21.4)	92	89 (292)	6.5 (1/4)	38 (84)
PS2-1000RGC	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)
PS2400R	2,400 (5,280)	2,190 (4,825)	2,000 (4,400)	6.5 (21.3)	5 (177)	2.3 (83.1)	88	79 (259)	10 (3/8)	62 (137)
PS2400RGC	2,400 (5,280)	2,190 (4,825)	2,000 (4,400)	6.5 (21.3)	5 (177)	2.3 (83.1)	85	163 (535)	10 (3/8)	76 (168)

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 Rating	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 Air Speed at Top Layer ⁽¹⁾		Air Volume Needed to Move Rated Load at Top Layer	Sound Level as per EN 14492-1			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 quickly 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 Ratings at 3.5:1 design factor and performance at 6.3 bar (90 psi) at air inlet when winch is operating												
	Line Pull Capacity			Pulling Speed at Top Layer (1)	Air	Air Volume Needed to Move Rated Load at Top Layer	Sound Level as per EN 14492-1	Drum Capacity ⁽³⁾ Rope Rope		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)	Length m (ft)	Diameter mm (in) kg (lb)	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)		

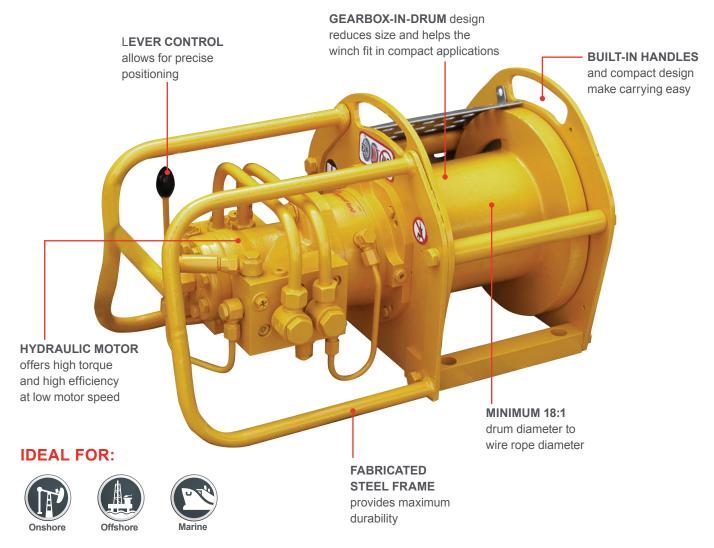
⁽¹⁾ Top layer speed is based on rated capacity.
(2) For PS4000RGC-L, line pulls are reduced by 10% and line speeds are increased by 10%.

⁽³⁾ Wire rope is tightly wound with no freeboard.

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.



	Line Pull Capacity		Lifting Speed	Motor	Operating Pressure	Rated Flow	Drum Capacity ⁽²⁾		Net Weight	
Model	First Layer kg (lb)	Mid Drum kg (lb)	Top Layer kg (lb)	at top layer 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	factor and pe	erformance a	t 6.3 bar (90	psi) at air ii	nlet when win	ch is opera	iting		
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)

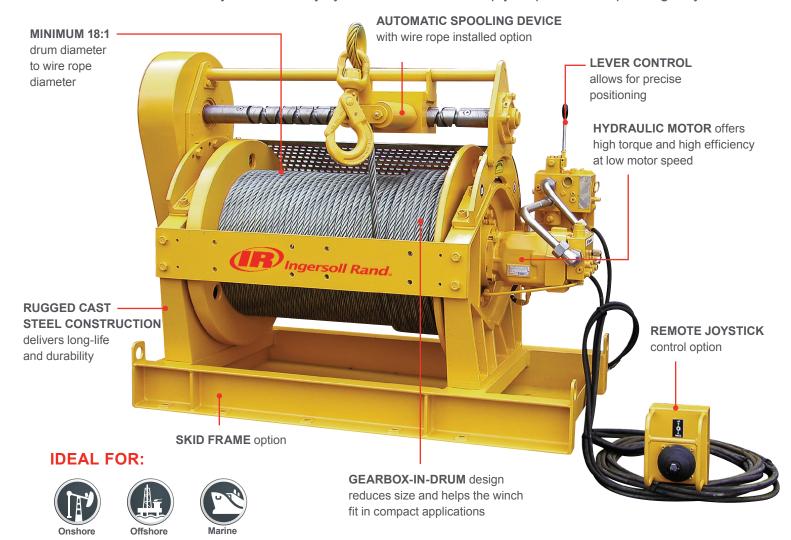
⁽¹⁾ Top layer speed is based on rated capacity. (2) Wire rope is tightly wound with no freeboard.



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.



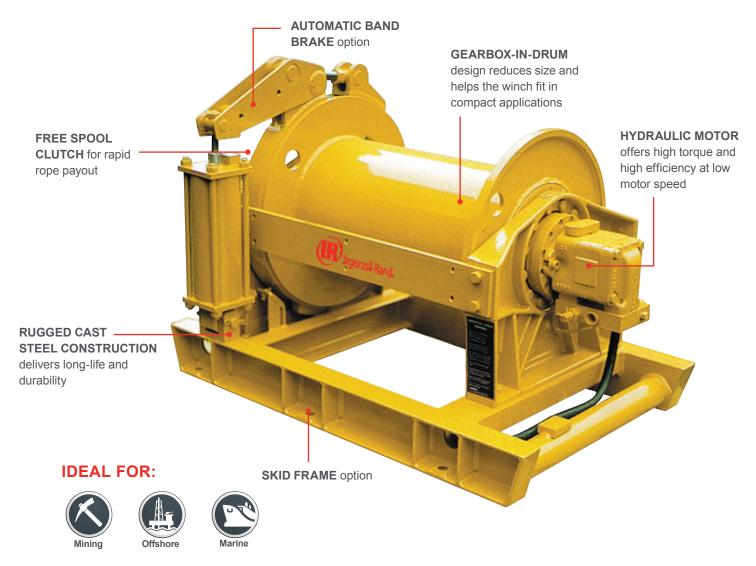
Lifting Ratings at 5:1 design factor and performance at 6.3 bar (90 psi) at air inlet when winch is operating												
	Line Pull Capacity			Lifting Speed at Top Layer	Motor	Operating Pressure	Rated Flow	Drum Capacity ⁽²⁾		Net Weight		
Model	First Layer kg (lb)	Mid Drum kg (lb)	Top Layer kg (lb)	m/min (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)		

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

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 at 3.5:1 design factor and performance at 6.3 bar (90 psi) at air inlet when winch is operating												
	Line Pull Capacity			Speed Displacement				Operating Pressure	Rated Flow	Drum Capacity ⁽²⁾		Net Weight
Model	First Layer kg (lb)	Mid Drum kg (lb)	Top Layer kg (lb)	at top layer 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

- Low temperature design (-20°C DNV)
- Drum guard for non-CE models
- High temp. motor (60° to 85°C)
- · Airline accessories



Overload protection

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



Emergency stop

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

SPECIAL ORDERS



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 off-the-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.

- · Design for custom capacities
- Custom control systems
- · Custom product modifications
- Witness testing and complete certification to any global standard
- 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
- Installation and start-up assistance
 Inspector and operator training
- · Equipment refurbishments
- · Service and repair







Learn more at www.ingersollrand.com