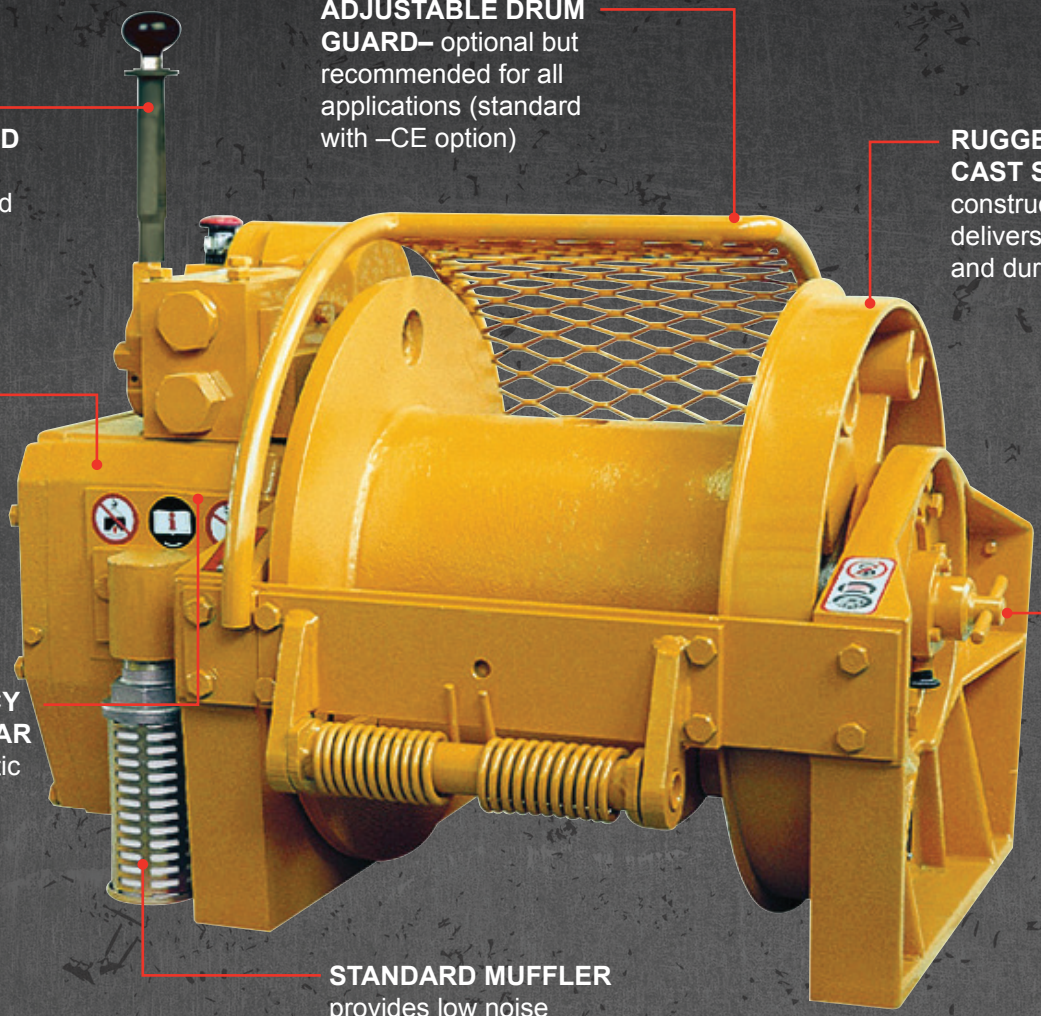
Ingersoll Rand



LIFT-TO-SHIFT VARIABLE SPEED LEVER provides precise control and built-in safety

ADJUSTABLE DRUM GUARD– optional but recommended for all applications (standard with –CE option)

RUGGED CAST STEEL construction delivers long-life and durability

RELIABLE GEAR TYPE AIR MOTOR designed for even the harshest environments

FREE SPOOL CLUTCH for rapid rope payout

HIGH EFFICIENCY PLANETARY GEAR BOX and automatic disc brake ensure smooth operation

STANDARD MUFFLER provides low noise

IDEAL FOR:

Mining

Offshore

Marine

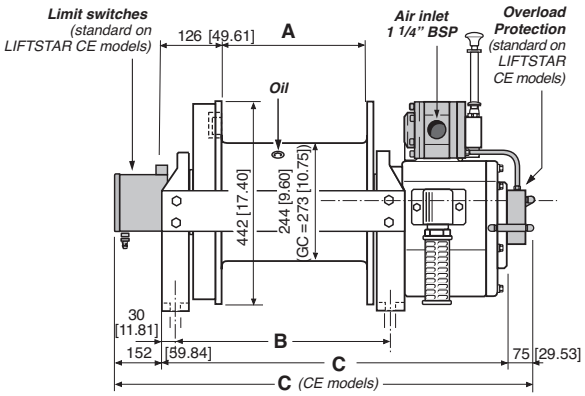
PULLSTAR HEAVY AIR WINCHES

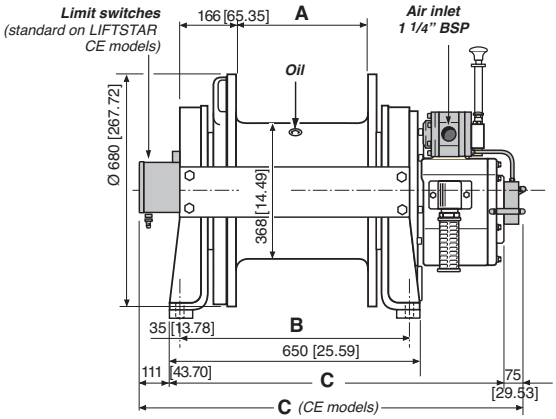
2,250-7,500 kg (4,950-16,530 kg)

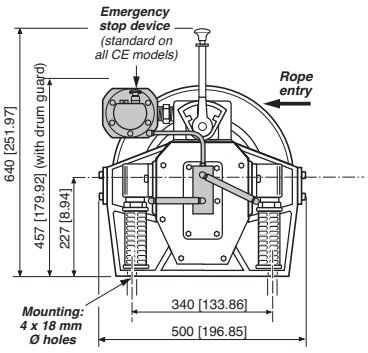
PULLSTAR HEAVY AIR WINCHES

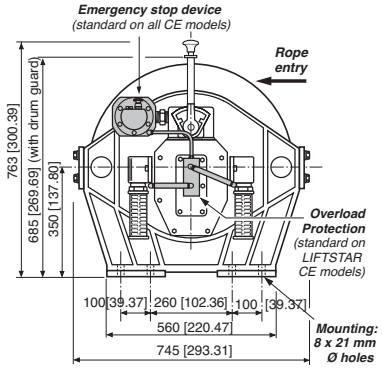
2,250-7,500 kg (4,950-16,530 kg)

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 winches available.





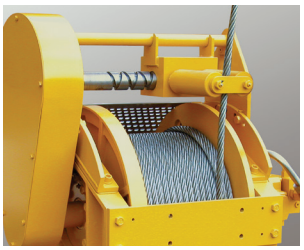




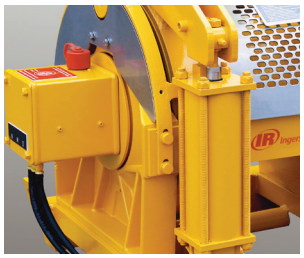
CE Models	A mm (in)	B mm (in)	C mm (in)
PS4000R-L-E	302 (11.89)	449 (17.68)	794 (31.26)
PS4000RGC-L-E	485 (19.09)	634 (24.96)	979 (38.54)
Non CE Models			
PS4000R-L	302 (11.89)	449 (17.68)	719 (28.31)
PS4000RGC-L	485 (19.09)	634 (24.96)	904 (35.59)

CE Models	A mm (in)	B mm (in)	C mm (in)
PS10000R-L-E	355 (13.98)	580 (22.83)	979 (38.54)
PS10000RGC-L-E	728 (28.66)	953 (37.52)	1,352 (53.23)
Non CE Models			
PS10000R-L	355 (13.98)	580 (22.83)	904 (35.59)
PS10000RGC-L	728 (28.66)	953 (37.52)	1,277 (50.28)

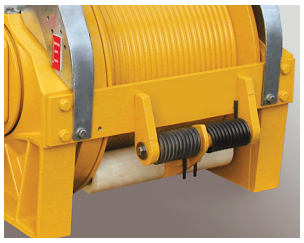
Dimensions shown are mm. Dimensions in Brackets [ ] are inches. Dimensions are subject to change. Contact factory for certified drawings.



Spooling Device



Automatic Drum Brake



Grooved Drum and Press Roller

General Performance. Performance at 3.5:1 design factor.

	Line Pull Capacity			Line Speed		
Model	First Layer kg (lb)	Mid Drum kg (lb)	Top Layer kg (lb)	First Layer m/min (fpm)	Mid Drum m/min (fpm)	Top Layer m/min (fpm)
PS4000R-L	4,000 (8,800)	3,250 (7,150)	2,500 (5,500)	4 (14)	5 (18)	7 (23)
PS4000RGC-L[1]	3,600 (7,920)	2,925 (6,435)	2,250 (4,950)	4 (15)	6 (20)	8 (25)
PS10000R-L	10,000 (22,000)	8,740 (19,265)	7,500 (16,530)	3 (9)	3 (11)	4 (14)
PS10000RGC-L	10,000 (22,000)	8,740 (19,265)	7,500 (16,530)	3 (9)	3 (11)	4 (14)

General Characteristics. Performance at 6.3 bar (90 psi) air inlet pressure with the motor running

	Motor	Lifting Speed at Top Layer	Air Consumption with Rated Load	Air Volume Needed to Move Rated Load at Top Layer	Stall	Sound Level as per EN 14492-1	Net Weight
Model	kW (hp)	m/min (fpm)	m^3/min (ft^3/min)	3 m (10 ft)	kg (lb)	dB(A)	kg (lb)
PS4000R-L	10.7 (14.3)	7 (23)	12 (424)	5.1 (184.3)	4,202 (9,265)	95	225 (496)
PS4000RGC-L[1]	10.7 (14.3)	8 (25)	12 (424)	4.5 (169.6)	3,776 (8,326)	95	278 (613)
PS10000R-L	10.7 (14.3)	4 (14)	12 (424)	9.0 (302.9)	11,200 (24,695)	87	640 (1,411)
PS10000RGC-L	10.7 (14.3)	4 (14)	12 (424)	9.0 (302.9)	11,200 (24,695)	87	755 (1,664)

Drum Capacity

	Minimum Rope Breaking Force[2]	Recommended Rope Diameter	Drum Capacity per Layer[3] m (ft)						Max. Rope Storage Capacity[4]
Model	kN (lbs)	mm (in)	Layer 1	Layer 2	Layer 3	Layer 4	Layer 5	Layer 6	m (ft)
PS4000R-L	110 (24,750)	13 (1/2)	17 (56)	36 (118)	57 (187)	79 (259)	103 (338)	- (-)	156 (512)
PS4000RGC-L[1]	123 (27,500)	13 (1/2)	31 (102)	65 (213)	102 (335)	142 (466)	- (-)	- (-)	230 (755)
PS10000R-L	368 (82,650)	20 (3/4)	21 (69)	44 (144)	69 (226)	96 (315)	125 (410)	156 (512)	224 (735)
PS10000RGC-L	368 (82,650)	20 (3/4)	44 (144)	92 (302)	145 (476)	202 (663)	263 (863)	329 (1,079)	473 (1,552)

[1] For PS4000RGC-L, line pulls are reduced by 10% and line speeds are increased by 10%
[2] Recommended minimum breaking force of wire rope based on top layer line pull rating.
[3] Drum Capacity is based on tightly wound wire rope and 1/2" freeboad from the top of the flange to the top layer. Recommended drum working capacity is 80% of values shown.
[4] Max storage capacity is tightly wound with no freeboard.

Ingersoll Rand

HOW TO ORDER

PS 4000R GC - PH 5M - KQZ-E

Series
PS Pullstar

Capacity
4000R 4,000 kg
10000R 10,000 kg

Drum
No letter standard
GC long drum

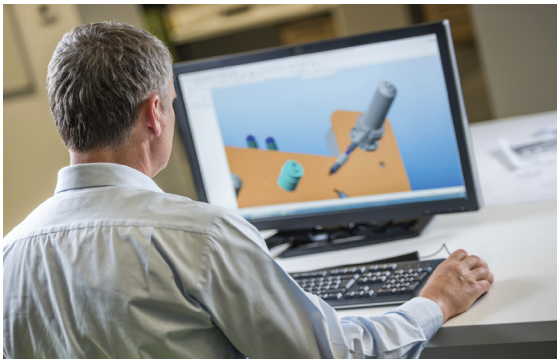
Control
L lever (control)
PH precision pendent, alloy, type PHS
PHR cast iron PHS pendent

Control distance
5M 5 meters (for pilot controlled winch)

Options
CM Low Temp Design (-20°C)
FF Skid frame + auto drum + disc brakes
FK Drum auto brake and skid (no disc)
G Drum guard for Non CE models
J Air Line Accessories[2]
K Skid frame
L Automatic spooling device
M Material traceability certificate as per EN 10204 3.1 on main load bearing parts
P Marine paint finish
QZ Offshore paint including sandblasting
R Press roller
W1 ABS witness test.
W2 DNV witness test.
W3 LRS witness test.
W4 Client witness of load test.
16 Drum grooving (Number = rope size in mm)
-E Compliance with the European Machinery Directive

[1]The FF option neutralizes the possibility to use a manual clutch on the PS Pulling series
[2] Add 1 for filter, 2 for lubricator, 3 for regulator (e.g. J12). For protection during shipment and due to the wide range of installation variables, the airline accessories are shipped loose for client installation.

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

Ingersoll Rand

Learn more at www.ingersollrand.com

Ingersoll Rand (NYSE:IR), driven by an entrepreneurial spirit and ownership mindset, is dedicated to helping make life better for our employees, customers and communities. Customers lean on us for our technology-driven excellence in mission-critical flow creation and industrial solutions across 40+ respected brands where our products and services excel in the most complex and harsh conditions. Our employees develop customers for life through their daily commitment to expertise, productivity and efficiency.