

# Product Features and Specifications

**FA2.5i Infinity Series Winch - Capacity: 5,000 lbs (2273 kg)**

PFS-FA2.5i-08222011

## Rugged Compact and Versatile Design

- Meets ANSI / ASME B30.7
- 5:1 design factor at rated load
- Top layer rated line pull
- "Lift to shift" winch mounted lever throttle
- Minimum 18:1 drum diameter to wire rope diameter ratio
- Compact gearbox-in-drum design
- Standard design temperature range is 0°C through 60°C
- Group of mechanism as per FEM: 5m
- Pre-certified lifting lugs

## Suitable for Hazardous Explosion Proof Environments

- Flameproof by design. Air motors (unlike electric motors) are inherently spark resistant.
- ATEX classification (as per directive EC 94/9/EEC). CE compliant models marked EX II 2 GD c 200°C X

## Powerful Radial Piston Air Motor

- Positive starting torque
- Infinitely variable speeds with precision spotting control
- Superior reliability in harsh environments

## Brake Systems

- Manual drum brake standard
- Optional auto drum brake and /or auto disc available
- Fully enclosed automatic oil bath "wet" disc brake sealed against moisture and contaminants
- **Ingersoll Rand recommends the use of automatic brakes whenever a winch is used for lifting**

## CE compliant versions provided with:

- Drum guard
- Overload protection (preset regulator)
- Emergency stop
- Muffler
- Automatic brake
- Limit switches
- CE documentation



FA2.5i with optional Auto Disc Brake, Grooved Drum and Drum Guard

## Options and Accessories

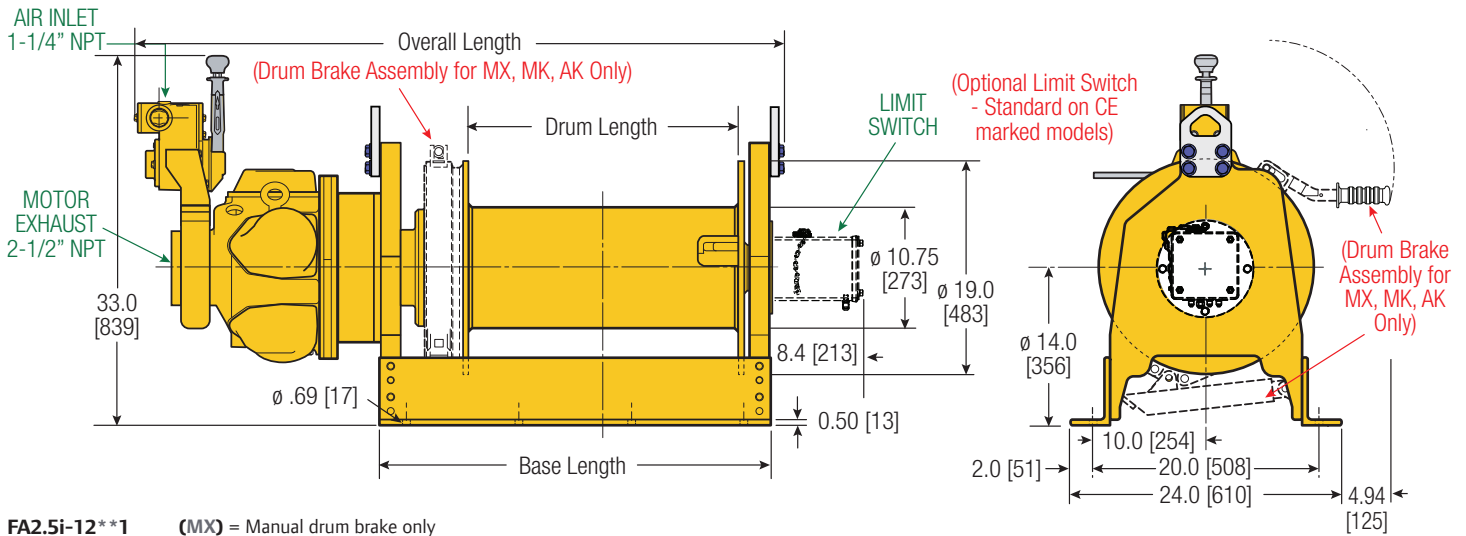
- DNV & ABS Type Approved models available
- Low temperature versions
- Overload and E-stop control system
- Remote controls
- Limit switches
- Tensioning manifold
- Drum guards\*
- Grooved drums
- Drum divider flanges
- Drum locks
- Spooling devices
- Marine paint systems
- Air line accessories

\* **Ingersoll Rand recommends using Drum Guards with all winches to prevent inadvertent contact with winch moving parts**

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FA2.5i-12\*\*1 (MX) = Manual drum brake only  
 FA2.5i-24\*\*1 (MK) = Manual drum & auto disc brakes  
 (AK) = Automatic drum & auto disc brake  
 (XK) = Disc brake only

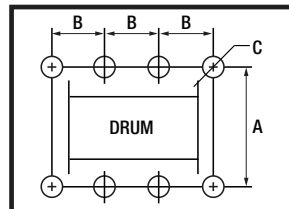
Dimensions shown are inches. Dimensions in Brackets [ ] are mm. Dimensions are subject to change. Contact factory for certified drawings.

### Dimensions: FA2.5i and Bolt Down Pattern

Drum Length	Overall Length						Base Length				Bolt Down "B" Dimension				
	Drum Brake Only (MX)		Disc Brake Only (XK)		Both Brakes (MK)		Disc Brake Only (XK)		Drum Only (MX) & Both Brakes (MK)		Disc Brake Only (XK)		Drum Only (MX) & Both Brakes (MK)		
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
8	203	38.8	986	39.2	996	41.8	1062	16.11	409	18.8	478	6.0	152	7.0	178
12	305	42.8	1087	43.2	1097	45.8	1163	20.11	511	22.8	579	8.0	203	9.0	229
16	406	46.8	1189	47.2	1199	49.8	1265	24.11	612	26.8	681	7.0	178	7.5	191
20	508	50.8	1290	51.2	1300	53.8	1367	28.11	714	30.8	782	8.0	203	9.0	229
24	610	54.8	1392	55.2	1402	57.8	1468	32.11	816	34.8	884	9.0	229	10.0	254

### Bolt Down Pattern

"A" = 20" [508mm]  
 "B" = See above chart  
 "C" = 0.69" [18mm]  
 Bolt Hole Inside Diameter



Drum Length	Total Number of Holes	
	Disc Brake Only (XK)	Drum Only (MX) & Both Brakes (MK)
in	mm	
8	203	6
12	305	6
16	406	8
20	508	8
24	610	8

### Lift Ratings at 5:1 Design Factor (Performance at 6.3 Bar - 90 PSI at air inlet when winch is operating)

Model #	Top Layer				First Layer				Average Air Consumption <sup>(1)</sup>	Sound Level <sup>(2)</sup>	Inlet Size	Exhaust Size	Net Weight			
	Rated Capacity	Speed	Speed	Rated Capacity	Stall Pull	Stall Pull	Average Air Consumption <sup>(1)</sup>	Sound Level <sup>(2)</sup>								
	hp	lbs	kg	ft/min	m/min	ft/min	m/min	lbs	kg	f <sup>3</sup> /min	m <sup>3</sup> /min	db(A)	NPT	NPT	lbs	kg
FA2.5i	25.2	5,000	2273	132	40	128	39	10,277	4671	700	20	97	1-1/4"	2-1/2"	1,061	481

(1) Average Air Consumption is at rated load and speed at top layer (2) With optional muffler

### Drum Wire Rope Storage Capacity

Imperial Series	Rated capacity lbs	Rope Diameter in	Min Break* Strength lbs	Accumulated rope capacity in feet / number of layers												
				1	2	3	4	5	6	7	8					
FA2.5i-8	5,000	5/8	25,000	35	74	116	163	212	266							
FA2.5i-12	5,000	5/8	25,000	54	114	180	251	328	410							
FA2.5i-16	5,000	5/8	25,000	73	154	243	339	443	554							
FA2.5i-24	5,000	5/8	25,000	111	234	369	515	673	843							

Metric Series	kgs	mm	kgs	Accumulated rope capacity in meters / number of layers												
				1	2	3	4	5	6	7	8					
FA2.5i-8	2273	16	11365	11	22	35	49	64	80							
FA2.5i-12	2273	16	11365	16	34	54	76	99	124							
FA2.5i-16	2273	16	11365	22	47	73	103	134	168							
FA2.5i-24	2273	16	11365	34	71	112	156	204	255							

\* NOTE:

The Minimum Required Breaking Strength for the wire rope needs to be the Rated Capacity multiplied by the Design Factor.

Example: for the FA2.5i (with a 5:1 Design Factor) 5,500 x 5 = 25,000 lbs.