

Force 5™ Air Winch Series 4400 to 22000 lb (2000 to 10000 kg) capacity



Setting the standards in winch technology with time savings, space savings and enhanced safety, IR's line of high quality Force 5 air winches are known throughout the world for their rugged dependability and quality in the hard-hat industries.

■ Your assurance of quality:

Force 5 winches are designed to meet or exceed independent third party requirements. Models have been design reviewed or Type Approved by ABS, DNV and LRS. Type Approval certificates are available upon request. This modern winch is designed for the harshest environments!

■ Versatility:

Force 5 winches offer maximum versatility to meet numerous lifting, pulling, or tensioning challenges. Substitute a wide variety of gear ratios to better meet **your** speed and capacity needs. Design, material, and dimensional changes are a snap with fabricated frames. Available option packages meet the requirements of oil refineries, mining, construction and offshore oil drilling.

■ Standard features:

- Meets ASME B30.7
- 5:1 design factor at rated load
- Full drum rated line pull: a Force 5 winch always pulls or lifts its rated load at any and all wire rope layers.
- Internal gearbox and optional disc brake combination provide load control superior to other types of air winches.
- Compact, space-saving frame design and fabricated alloy steel drum fit easily into tight spaces
- Variable drum length and wire rope storage for special applications
- Standard operating temperature range is 0°C through 60°C.
- Minimum 18:1 drum diameter to wire rope diameter ratio reduces wire rope wear.
- Longer drum lengths and taller flanges provide greater wire rope storage

■ Options and accessories:

- Optional enclosed oil bath "wet" disc brake is fully sealed for protection against salt spray, dirt and moisture, providing trouble-free operation over thousands of lifting cycles. A disc brake is standard on the FA10.
- Automatic band brakes
- Variable drum lengths 8" to 50" (203 to 1067 mm)



FA5

- Grooved drums
- Drum divider flange
- Drum guard
- Limit switch
- Drum lock
- Construction cage
- Corrosion resistant marine grade coating system: sandblast to white metal finish and carbozinc primer with a Marine 812 finish
- Tensioning manifold
- Air preparation packages: filter, regulator, lubricator, liquidator, and strainer
- Electric over air remote control allows for virtually unlimited pendent length
- Air operated remote controls
- Muffler
- Hydraulic models
- Third party certifications for low temperature applications
- Special winches for refinery decoking applications
- FA7T Guideline (GL) and Podline (PL) winches feature 42" drums, drum locking dogs and marine grade finishes, materials and fasteners. The GL version offers dual controls, and is designed to overhaul. For performance and specification detail, see chart on the following page.

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Specifications: performance is based on 90 psi (6.3 bar) air inlet pressure with motor running

Model no.	Utility rating 5:1 design factor		top layer		Drum length A			Avg. air consumption at rated load @ 90 psi (6.3 bar)		Maximum stall pull 1st layer		Pipe inlet size		Hose size		Ship weight	
	lbs	kg	fpm	m/min	in.	mm	hp	scfm	m ³ /min	lbs	kg	in.	mm	in.	mm	lbs	kg
FA2-24	4400	2000	47	14	24	610	9.4	335	9.5	9000	4091	1 1/4	32	1 1/4	32	825	374
FA2.5-24	5000	2273	132	40	24	610	25	700	19.9	10000	4545	1 1/4	32	1 1/2	38	1061	481
FA5-24	11000	5000	54	16	24	610	25	700	19.9	24000	10909	1 1/4	32	1 1/2	38	1872	849
FA5T-24	8400	3818	70	21	24	610	25	700	19.9	24000	10909	1 1/4	32	1 1/2	38	2153	977
FA7-24	15400	7000	40	12	24	610	25	750	21.3	36000	16364	1 1/4	32	1 1/2	38	2205	1000
FA7T-24	12600	5727	48	15	24	610	25	750	21.3	36000	16364	1 1/4	32	1 1/2	38	2335	1059
FA7TGL-42	3400	1545	152	46	42	1067	25	750	21.3	10000	4545	1 1/4	32	1 1/2	38	2981	1352
FA7TPL-42	10200	4636	60	18	42	1067	25	750	21.3	36000	16364	1 1/4	32	1 1/2	38	2850	1293
FA10-24	22000	10000	23	7	24	610	31	800	22.7	38000	17273	1 1/4	32	1 1/2	38	3200	1451

Note: Adding "-E" to model states compliance with European Machinery Directive. See the Air Winch Selection Guide for explanation of compliance.

Drum wire rope storage capacities⁽¹⁾

Model	Capacity		Recommended wire rope size		Drum length		Rope diameter														
	lbs	kg	in.	mm	in.	mm	1/2" (13 mm)		5/8" (16 mm)		3/4" (19 mm)		7/8" (22 mm)		1" (25 mm)		1 1/8" (29 mm)				
					ft	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m			
FA2	4400	2000	1/2	13 mm	8	203	388	118	266	81											
					12	305	594	181	410	125											
					16	406	801	244	554	169											
					24	610	1214	370	843	257											
FA2.5	5000	2273	5/8	16 mm	8	203			266	81											
					12	305			410	125											
					16	406			554	169											
					24	610			843	259											
FA5	11000	5000	3/4	19 mm	16	406			1181	360	746	227	544	166							
					24	610			1795	547	1138	347	832	254							
					30	762			2256	688	1431	433	1047	319							
					36	915					1682	512	1204	367							
FA5T	8400	3818	3/4	19 mm	24	610					2564	761	1841	561							
					30	762					3225	983	2318	706							
					36	915					3887	1185	2796	852							
					24	610					1640	500	1059	323	786	240					
FA7	15400	7000	7/8	22 mm	30	762					2063	629	1334	406	991	302					
					36	915					2486	758	1608	493	1196	365					
					24	610					2669	813	1917	584	1538	469					
					30	762					3358	1023	2414	736	1940	591					
FA7T	12600	5727	7/8	22 mm	36	915					4047	1233	2912	887	2311	713					
					42	1067					4736	1443	3409	1039	2742	836					
					24	610					2488	758	1962	598	1332	405	1026	313			
					30	762					3130	954	2471	753	1679	511	1295	395			
FA10	22000	10000	1 1/8	29 mm	36	915					3773	1150	2980	908	2027	617	1564	477			
					40	1016					4201	1280	3319	1011	2258	688	1744	531			
					50	1270					5271	1606	4168	1270	2837	865	2192	668			
					24	610															

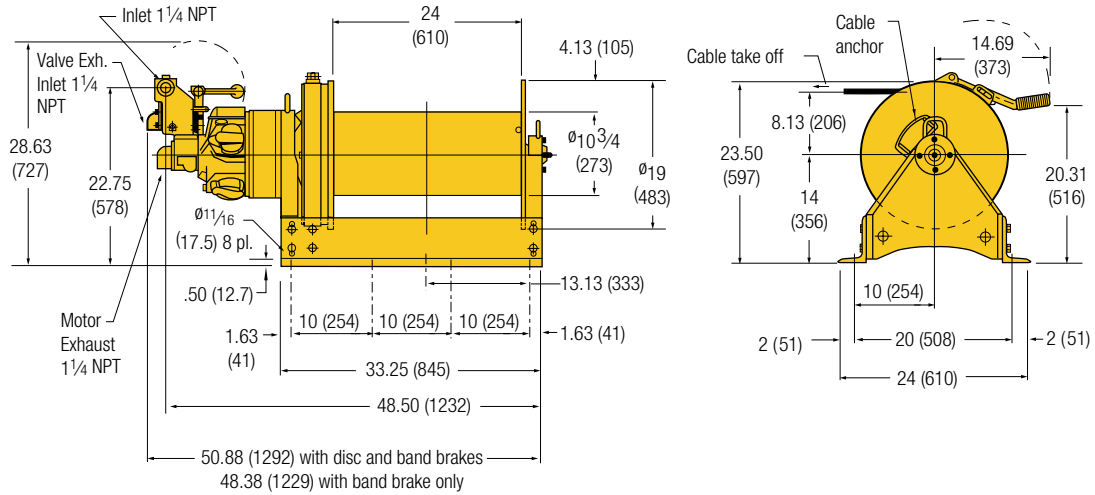
(1) Capacities meet ANSI-ASME B30.7 which requires 1/2" (13 mm) minimum clear flange above last layer. Capacities represent tightly wound wire rope. Recommended working capacity is 80% of values shown.

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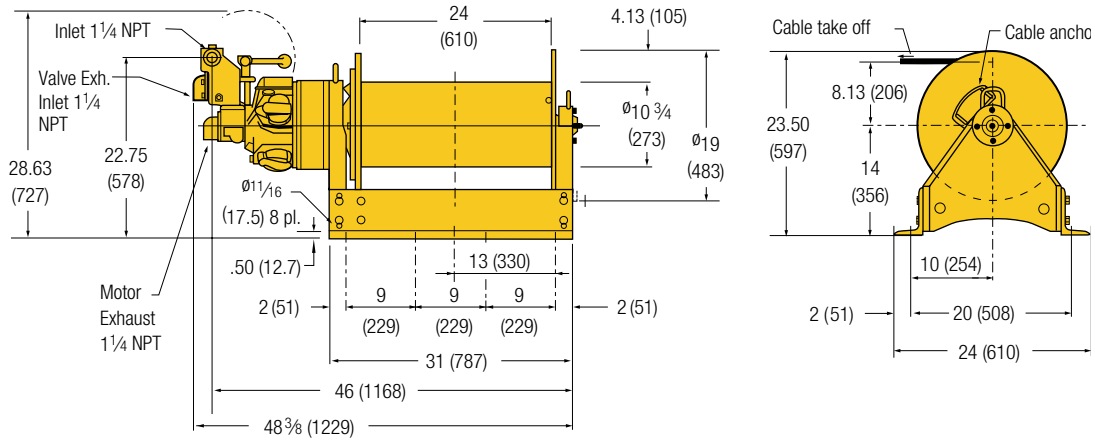


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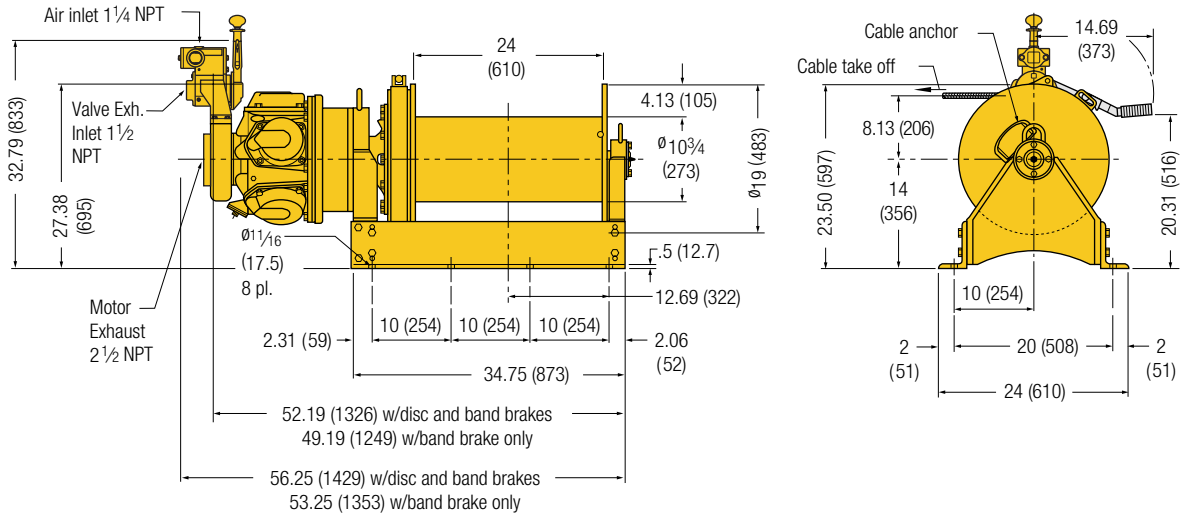
FA2-24 with disc and band brakes or band brake only in inches (mm)



FA2-24 with disc brake only in inches (mm)



FA2.5-24 with disc and band brakes or band brake only in inches (mm)



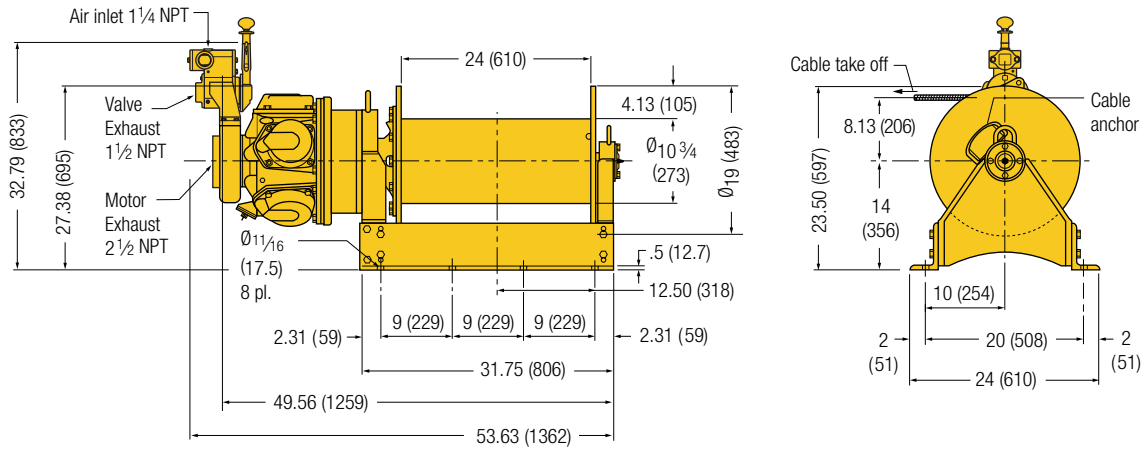
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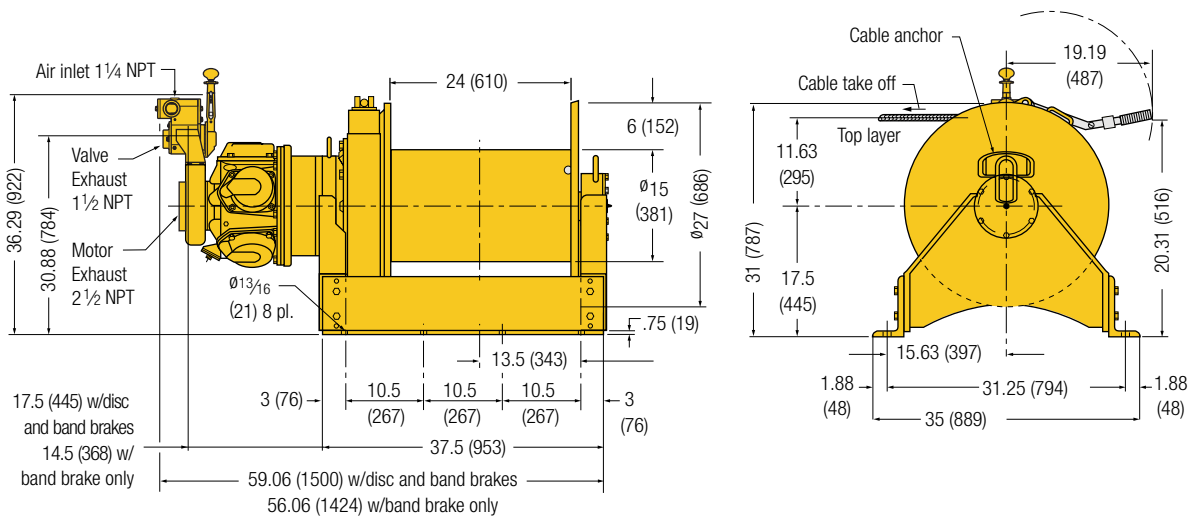


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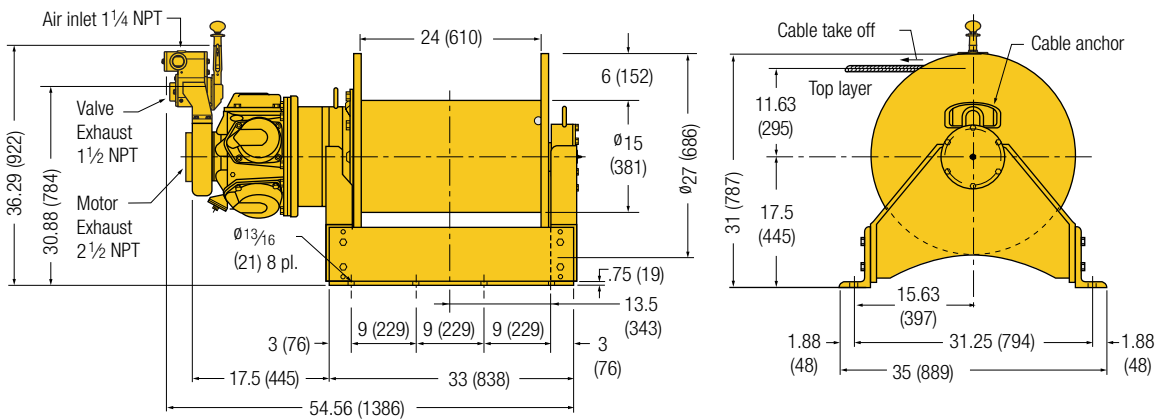
FA2.5-24 with disc brake only in inches (mm)



FA5-24 with disc and band brakes or band brake only in inches (mm)



FA5-24 with disc brake only in inches (mm)



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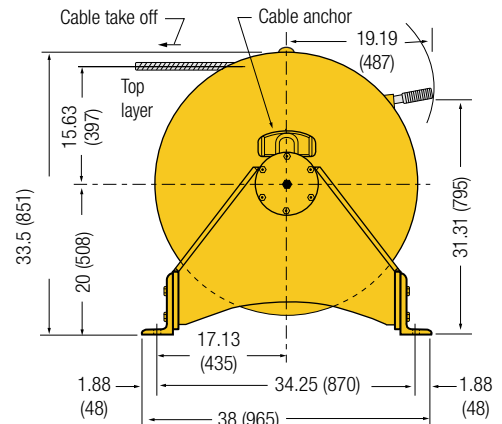
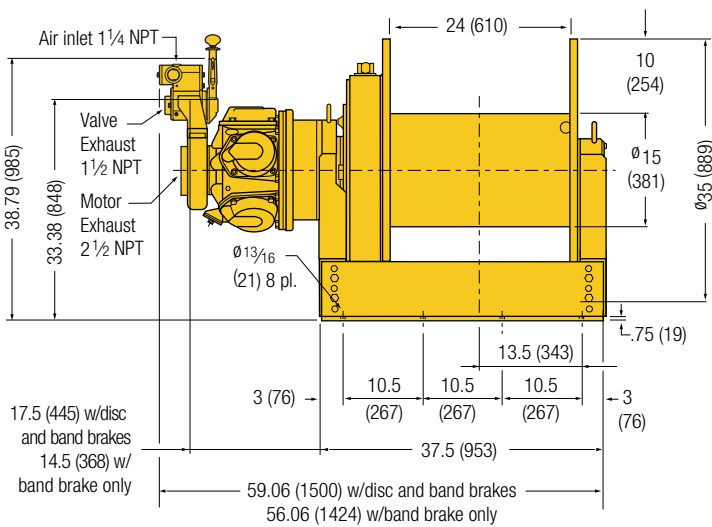
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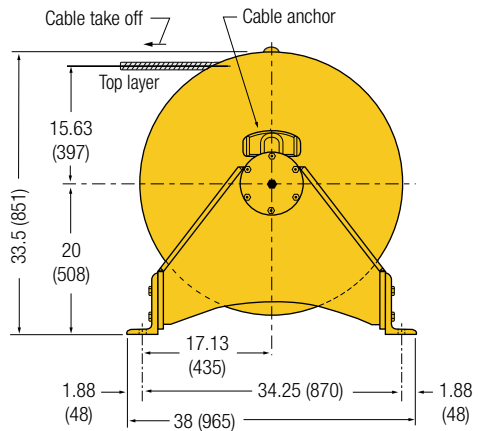
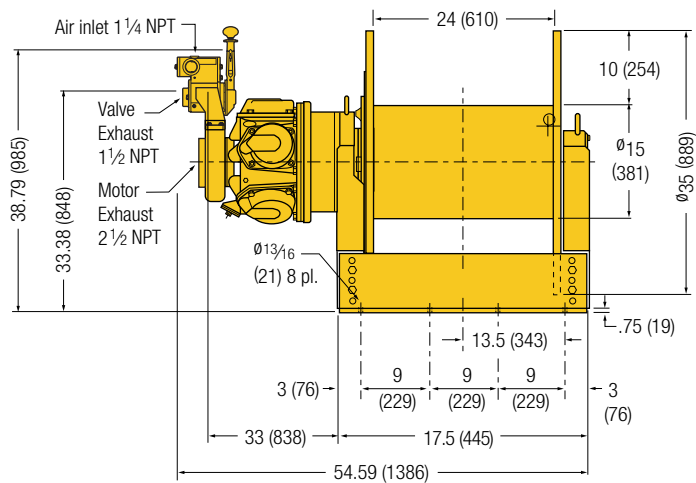


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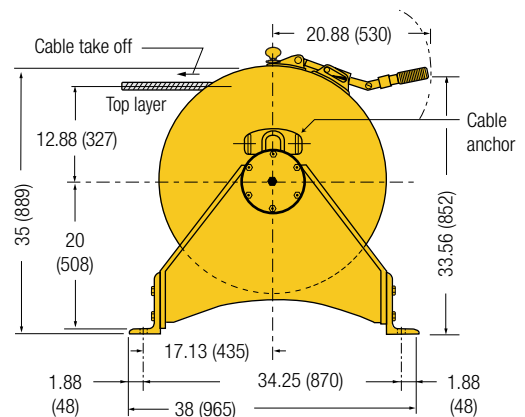
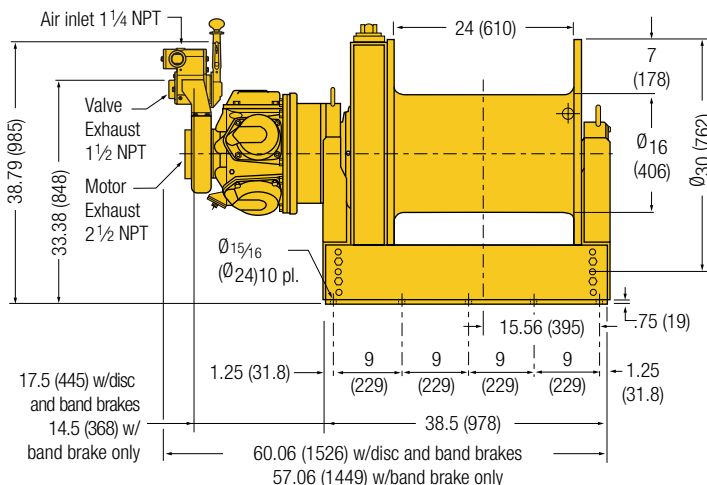
FA5T-24 with disc and band brakes or band brake only in inches (mm)



FA5T-24 with disc brake only in inches (mm)



FA7-24 – Popeye Junior – with disc and band brakes or band brake only in inches (mm)



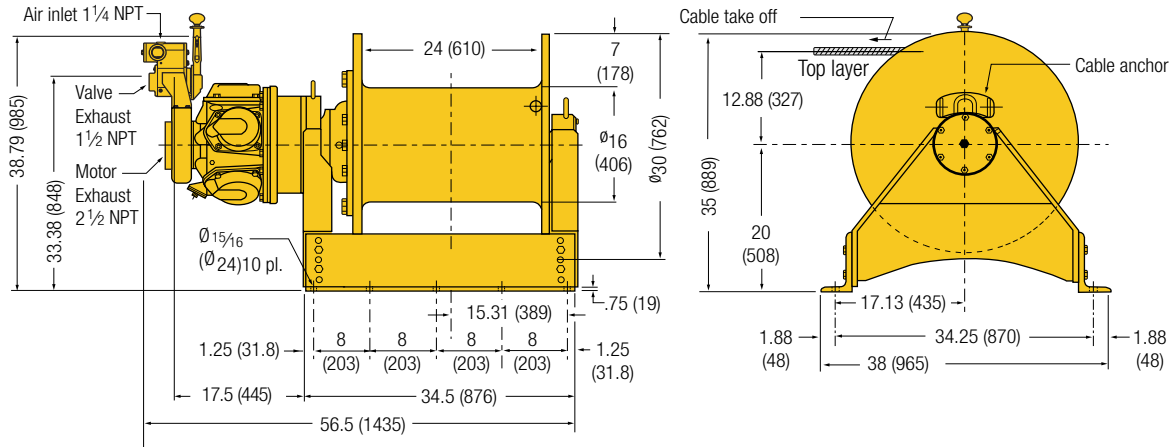
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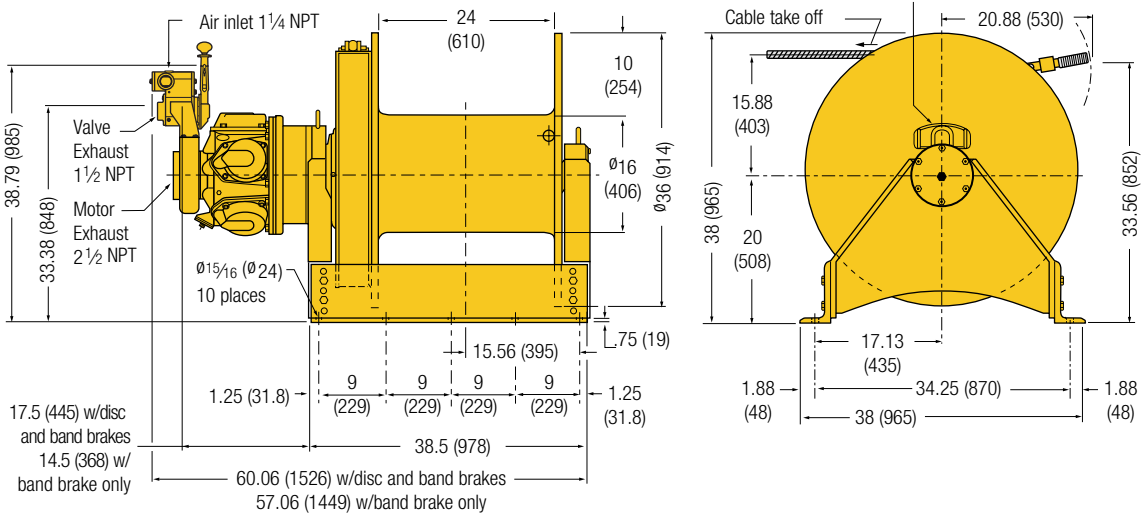


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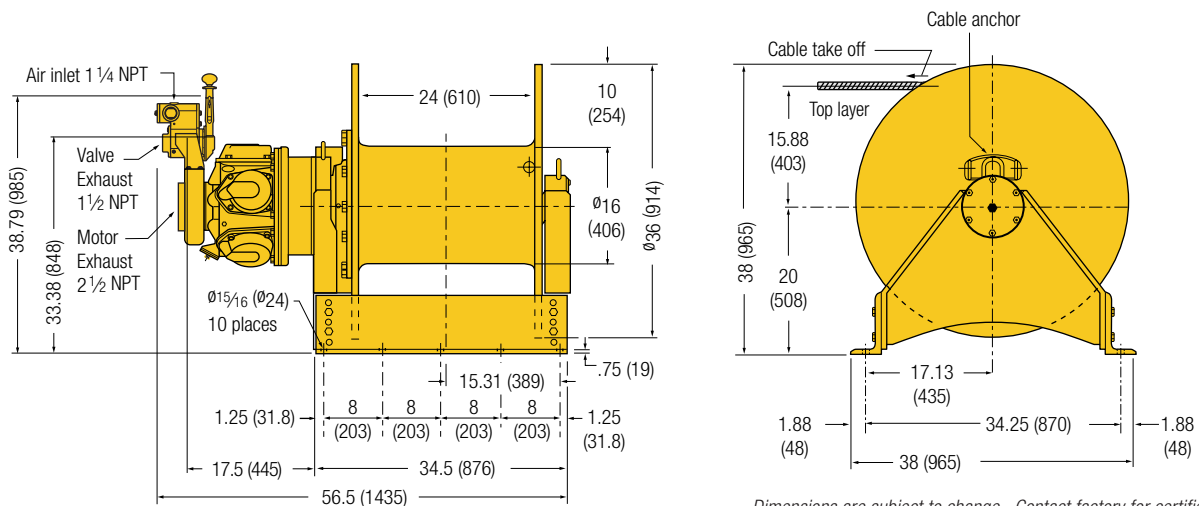
FA7-24 – Popeye Junior – with disc brake only in inches (mm)



FA7T-24 – Popeye Junior – with disc and band brakes or band brake only in inches (mm)



FA7T-24 – Popeye Junior – with disc brake only in inches (mm)



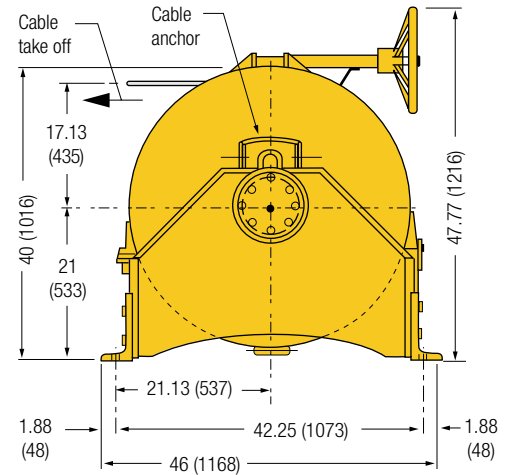
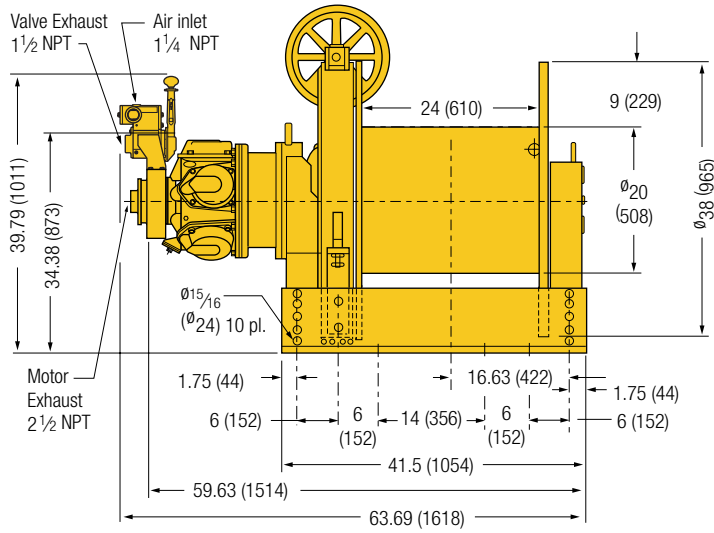
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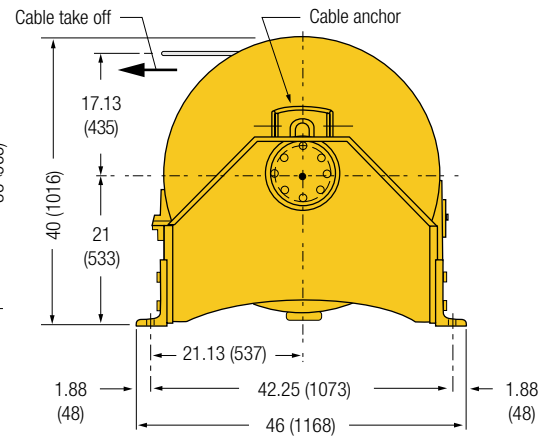
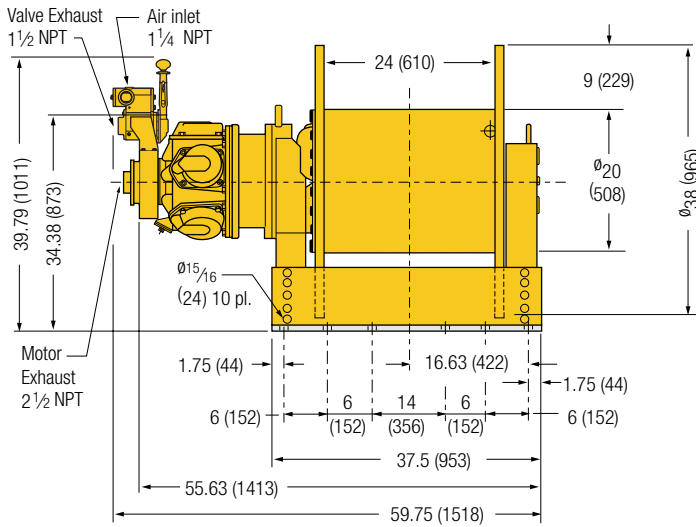


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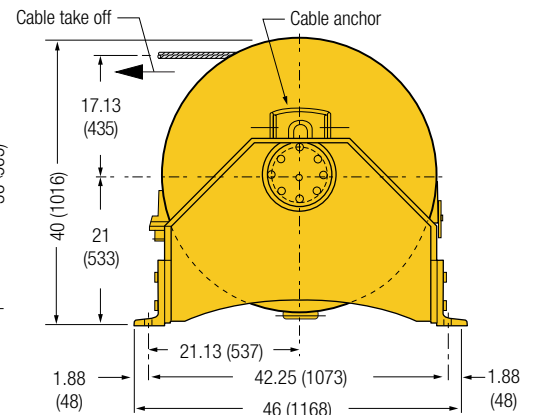
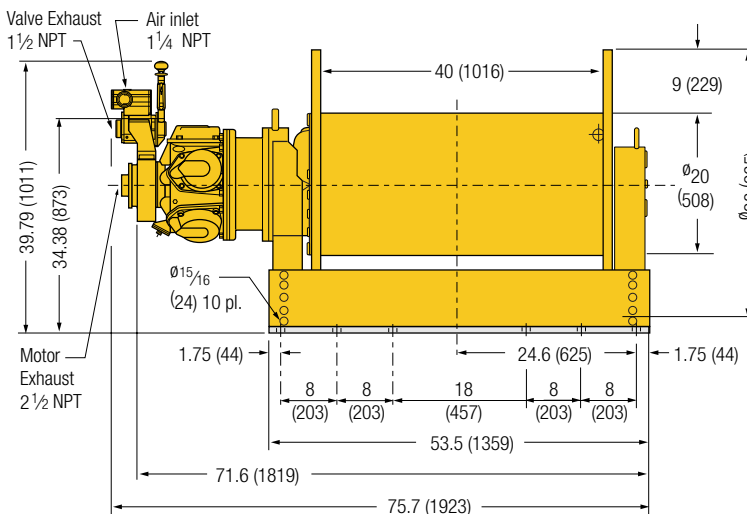
FA10-24 – Popeye – with disc and band brakes or band brake only in inches (mm)



FA10-24 – Popeye – with disc brake only in inches (mm)



FA10-40 – Popeye – with disc brake only in inches (mm)



DDimensions are subject to change. Contact factory for certified prints

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How to Order:

Specify complete model code as shown. To order options, use the option code in the option table and add as a suffix to the model code. To order a Force Five air winch with a non-standard drum length, refer to the available drum lengths provided in the drum length table below. Enter the desired drum length for each winch in the drum length section of the model code. To order accessories such as filters and lubricators, please enter these as separate accessory items by part number in the air winch accessories table below.

Example: **FA5-24MX1P**

Series	Capacity	Drum flange ht	Drum length	Drum brake	Disc brake	Control	Options (see Option Notes)
FA	5	-	24	M	X	1	P
2 = 4400 lbs (2000 kg) 2.5 = 5000 lbs (2273 kg) 5 = 11000 lbs (5000 kg) 5T = 8400 lbs (3818 kg) 7 = 15400 lbs (7000 kg) 7T = 12600 lbs (5727 kg) 10 = 22000 lbs (10000 kg)			24 = 24" (610 mm) between flanges. See drum length chart below.	A = Auto drum brake M = Manual drum brake X = No drum brake	K = Auto disc brake X = No auto disc brake		7 = Drum grooving (specify rope size in sixteenths, e.g. 7 = 7/16") ⁽²⁾ C = Low temperature; please specify in text: -10° C or -20° C D = Drum divider flange and additional cable anchor ⁽³⁾ E = Construction cage G = Drum guard L = Drum locking pin M1 = Per DIN 50049/En10204 Para 2.2 "Typicals" ⁽⁴⁾ M2 = Per DIN 50049/En10204 Para 3.1b actual per product as purchased ⁽⁴⁾ M3 = Per DIN 50049/En10204 Para 3.1b actual per product as delivered in final condition ⁽⁴⁾ N = Type approval; please specify in text: DNV, ABS or Lloyds P = Marine 812 finish Q = Special paint; please specify S = Rotary limit switch (upper and lower) T = Tensioning manifold U = Underwound (available only with autodisc brake XX) V = Press roller W = Witness; please specify X = Testing; please specify Z = Sandblast and carbozinc primer only -E = Compliance with the European Machinery Directive (includes emergency stop and overload protection). Insert at end of model code.
Force Five FA = Air powered FH = Hydraulic powered	- = Std flange height T = Tall flange (FA5T and FA7T only)		1 = Standard winch mounted throttle 2XX = Remote full flow lever throttle (max 20 ft/6 m) 3XX = Remote pilot pendent throttle (std = 6 ft/1.8 m; max 66 ft/20 m) ⁽¹⁾ 4XX = Remote pilot lever throttle (max 66 ft/20 m) ⁽¹⁾ 5XX = Remote electric over air throttle XX = Specify hose length or pendent cord in feet				
Notes:							
All Force 5 units come with standard six (6) strand wire rope anchor and winding directions for right hand overwind.							
Option Notes:							
(1) With remote pilot control option, line speeds will decrease.							
(2) Number designates drum grooving. Number equals wire rope size in sixteenths. The standard will be based on a right hand overwind rotation and spiral grooving for the recommended size of wire rope for the standard length of drum only. Grooving involving longer or shorter drums, or drums equipped with a divider flange will be an engineered item with longer lead time.							
(3) D = drum divider flange. The standard will be based on right hand over wind rotation. Two steel flanges are welded to the center of the drum. This provides the motor side of the drum (half) with a rope anchor. Anchor locations must be specified by the customer.							
(4) Documentation, witness testing and material traceability available; must be requested at time of order. Specify options or contact factory or your nearest Ingersoll-Rand distributor for information.							
M1 Material traceability certificates according to EN 10204 (Ex DIN 50049) 2.2 on load bearing parts. This conformity document affirms (by the manufacturer) that parts are in compliance with the requirements of the order based on non-specific inspection and testing (i.e. results are typical material properties for these parts.)							
M2 Material traceability certificates according to EN 10204 (Ex DIN 50049) 3.1b on load bearing parts. These documents affirm (by a department independent of the manufacturing department) that the actual parts used in the product are in compliance with the order based on specific inspection and testing (i.e. results are actual material properties for those parts.)							
M3 Material traceability certificates according to EN 10204 (Ex DIN 50049) 3.1b on load bearing parts. These documents affirm (by a department independent of the manufacturing department) that the actual parts used in the product are in compliance with the order based on specific inspection and testing (i.e. results are actual material properties for those parts in a finished, as delivered condition.)							
Overload devices and drum revolution counters are available as engineered specials, with extended lead times.							

Model	Drum length available									
	Drum width in. (mm)									
	8 (203)	12 (305)	16 (406)	20 (508)	24 (610)	30 (762)	36 (915)	40 (1016)	42 (1067)	50 (1270)
FA2	yes	yes	yes	yes	Standard	yes	yes	special	special	special
FA2.5	yes	yes	yes	yes	Standard	yes	yes	special	special	special
FA5/FA5T	no	yes	yes	yes	Standard	yes	yes	special	special	special
FA7/FA7T	no	no	yes	yes	Standard	yes	yes	yes	yes	special
FA10	no	no	yes	yes	Standard	yes	yes	yes	yes	yes

Contact factory for lengths other than shown.

For air line accessories — filters, regulators, lubricators, liquidators and strainers — please see the Accessories section.