

technical sheet

compact frames for TIRAK hoists and wire rope reelers

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The use of a TIRAK hoist with its wire rope reeler fitted within a frame, is a particularly compact and practical solution for jobs needing frequent transport of the hoist, such as:

- various lifting jobs on building sites,
- pulling goods wagons or other transport equipment,
- materials handling in theatres, TV or cinema studios,
- jobs on masts and antennas, etc. . .

The TIRAK with its compact frame is lighter, smaller and more economic than a crane or a drum winch with the same capacity and complete with a similar length of wire rope.

The unit is self-aligning, unlike a drum winch, with which it is only possible to pull in one direction. In addition, the lifting speed and the capacity of the TIRAK remain constant.

A. Compact frame with free wire rope reeler (80 m)

The compact frame with free wire rope reeler allows the reeling of the wire rope up to **80 m** length. The frame is designed for the TIRAK powered hoist through which the wire rope passes, series X-300, X-500, X-700 and T-1000. The compact frame has the following safety features:

- wire rope limit switch (code 15428 for X-300/500/700 and code 15757 for T-1000). The necessary adjustment is by moving the adjustable end-stop (clamp).
- end-of-rope sensor (code 36257 for X-300, 38177 for X-500/700 and 38717 for T-1000), which stops the TIRAK as soon as the end of the wire rope reaches the switch. It therefore prevents the wire rope running completely through the TIRAK.

Option: overload limit device.

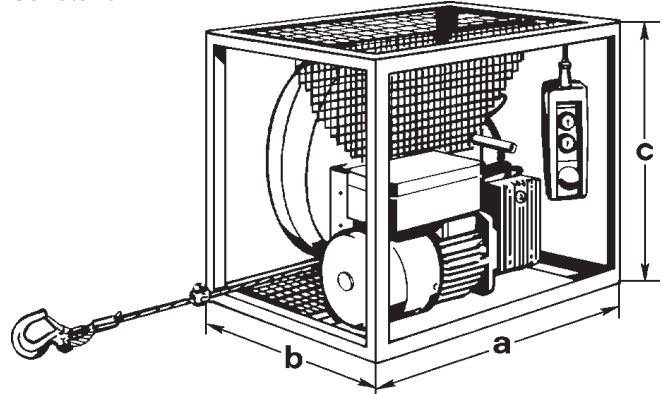


Fig. 1 - Frame with hoist and free wire rope reeler (80 m).

The machine is fitted with a push-button pendant control with emergency stop and 3 m of control cable.

Option: 48 V push-button pendant control.

capacity ¹	with TIRAK type	speed	standard ²	motor			wire rope ³	weight without wire rope	overall dimensions					
				capacity	amperage at 380 V	operating factor			length a	width b	height c			
daN (kg)		m/mn. ²	-	kW	A	%	mm	±kg	mm	mm	mm			
300	X-300	9	3-phase 220/380 V	0.5	1.6	100	dia. 8.3 0.260 kg/m	50	615	430	480			
	X-302	18		0.9	2.6			50						
500	X-500	4.5		0.5	2.1			72	715	480	540			
	X-502	9		0.9	2.8			70						
	X-502	4.5 / 9		0.5 / 0.9	2.9 / 3.0			72						
	X-502	4.5 / 18		0.5 / 1.8	2.0 / 5.0			72						
	X-502	9 / 18		0.9 / 1.8	3.6 / 5.8			72						
700	X-700	4.5		2 speed: 3-phase 220 or 380 V	0.75			3.2	100	dia. 8.3 0.260 kg/m	74	715	480	540
	X-702	9			1.5			3.9			72			
	X-702	4.5 / 9			0.75 / 1.5			3.0 / 3.9			74			
	X-702	4.5 / 18	0.75 / 3.0		3.6 / 8.2	74								
	X-702	9 / 18	1.5 / 3.0		4.0 / 8.0	74								
1000	T-1000	4.5	0.9		3.7	105	760	510			560			
	T-1002	9	1.9		4.6	105								
	T-1002	4.5 / 9	0.9 / 1.9		3.6 / 4.6	115								
	T-1002	4.5 / 18	0.9 / 3.5		4.0 / 9.7	117								
	T-1002	9 / 18	1.9 / 3.5		5.5 / 9.5	115								

1) Capacity of the hoist can be increased by using multiple sheave blocks.

2) Voltage of the electric motors: 3-phase 220V, 380V or 415V, 50 Hz or 60 Hz; for a network with 5 conductors (3 phases + neutral + earth), or with 4 conductors (3 phases + earth). Please specify upon request.

On request: other speeds (up to max. 30 m); adjustable speeds and hoists with pneumatic or hydraulic motors.

3) Special non-rotating wire rope with swivel hook. Effective breaking strain: dia. 8.3 mm = 4800 daN. Please specify length of wire rope.

**B. Compact frame with
powered wire rope reeler (250 m)**

In this type of frame, the wire rope reeler is driven by the hoist and allows the reeling of wire ropes up to **250 m**. The frame is designed for TIRAK powered hoists with wire rope reeler, series X-500, X-700 and T-1000.

The compact frame has the following safety devices:

- wire rope limit switch.
The necessary adjustment is by moving the adjustable end-stop (clamp).
- end-of-rope sensor, which stops the TIRAK as soon as the end of the wire rope reaches the switch. It therefore prevents the wire rope running completely through the TIRAK.

Option: an overload limit device.

The machine is fitted with a push-button pendant control with emergency stop and 3 m of control cable.

Option: 48 V push-button pendant control.

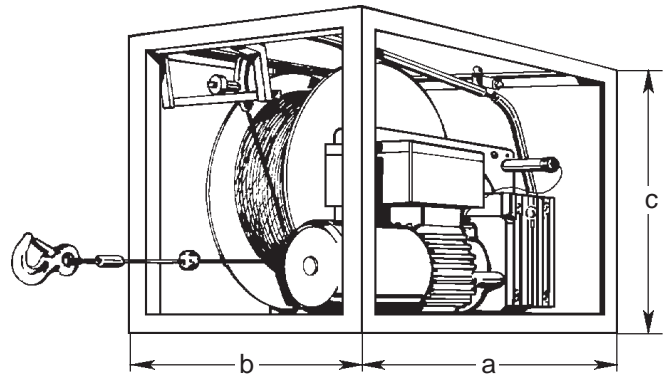


Fig. 2 - Frame with hoist and powered wire rope reeler 250 m.

capacity ¹ daN (kg)	with TIRAK type	speed m/mn. ²	standard ² -	motor			wire rope ³ mm	weight without wire rope ±kg	dimensions		
				capacity kW	amperage at 380 V A	operating factor %			length a mm	width b mm	height c mm
500	X-500	4.5	3-phase 220/380 V	0.5	2.1	100	dia. 8.3 0.260 kg/m	82	750	590	550
	X-502	9		0.9	2.8			80			
	X-502	4.5 / 9		0.5 / 0.9	3.0 / 3.2			82			
	X-502	4.5 / 18		0.5 / 1.8	2.0 / 5.0			82			
	X-502	9 / 18		0.9 / 1.8	3.6 / 5.8			82			
700	X-700	4.5	2 speed: 3-phase 220 or 380 V	0.75	3.2			87	750	590	550
	X-702	9		1.5	3.9			85			
	X-702	4.5 / 9		0.75 / 1.5	3.0 / 3.8			87			
	X-702	4.5 / 18		0.75 / 3.0	3.6 / 8.2			87			
	X-702	9 / 18		1.5 / 3.0	4.0 / 8.0			87			
1000	T-1000	4.5	-	0.9	3.7	135	870	615	565		
	T-1002	9		1.9	4.6	135					
	T-1002	4.5 / 9		0.9 / 1.9	3.6 / 4.6	145					
	T-1002	4.5 / 18		0.9 / 3.5	4.0 / 9.7	147					
	T-1002	9 / 18		1.9 / 3.5	5.5 / 9.5	145					

1) Capacity of the hoist can be increased by using multiple sheave blocks.

2) Voltage of the electric motors: 3-phase 220V, 380V or 415V, 50 Hz or 60 Hz; for a network with 5 conductors (3 phases + neutral + earth), or with 4 conductors (3 phases + earth). Please specify upon request.

On request: other speeds (up to max. 30 m); adjustable speeds and hoists with pneumatic or hydraulic motors.

3) Special non-rotating wire rope with swivel hook. Effective breaking strain: dia. 8.3 mm = 4800 daN. Please specify length of wire rope.

**C. Compact frame with
powered wire rope reeler (500 m)**

The wire rope reeler is driven by the hoist (by a chain), allowing the reeling of wire ropes up to **500 m** in length. The reeling is controlled by a pivoting reeling arm. The frame is designed for TIRAK powered hoists with wire rope reeler, series T-500 and T-1000.

The frame is fitted with the following safety features:

- wire rope limit switch.
- The necessary adjustment is by moving the adjustable end-stop (clamp).
- an end-of-rope sensor, which stops the TIRAK as soon as the end of the wire rope reaches the switch. It therefore prevents the wire rope running completely through the TIRAK.

The following accessories are available:

- overload limit device
- anchor brackets
- castor wheels to allow easier movement.

The machine is fitted with a push-button pendant control with emergency stop and 3 m of control cable.

Option: 48 V push-button pendant control.

The above equipment can be fitted with a DINAFOR load indicator with digital display to directly monitor the effort applied, which is also displayed on the LCD mounted in the push-button pendant control.

The pendant control also incorporates an adjustable load limiter (0 to 1 t) which stops any further pulling operation when the preset limit is reached.

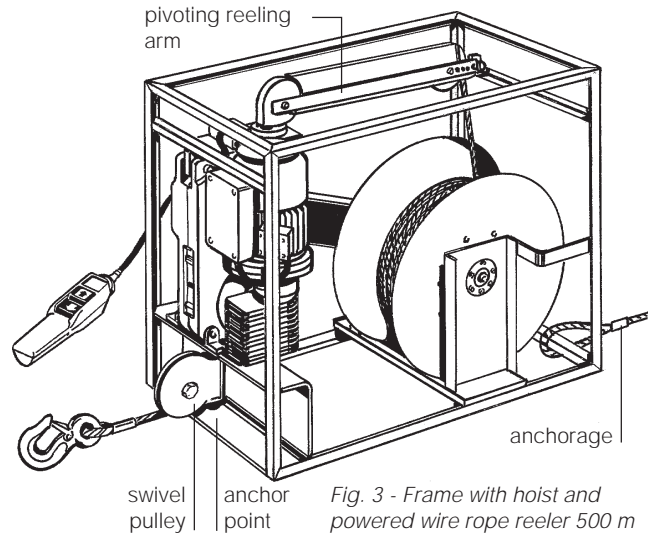
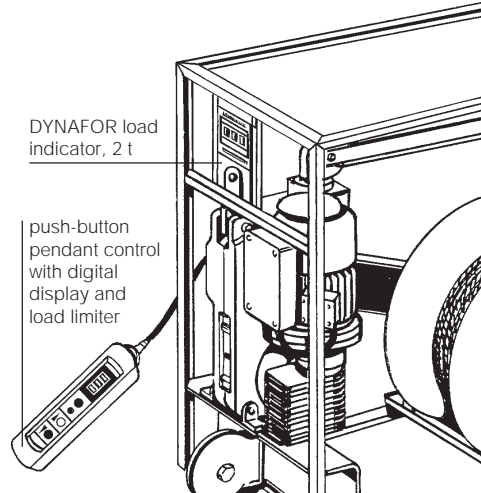


Fig. 3 - Frame with hoist and powered wire rope reeler 500 m



capacity ¹ daN (kg)	with TIRAK type	speed m/mn. ²	standard ² -	motor			operating factor %	wire rope ³ mm	weight without wire rope ± kg	dimensions		
				capacity kW	amperage at 380 V A					length mm	width mm	height mm
500	T-500	4.5	3-phase 220/380 V	0.5	2.1	100	dia. 8.3 0.260 kg/m	160	1100	460	950	
	T-502	9		0.9	2.8							
	T-502	4.5 / 9		0.5 / 0.9	3.0 / 3.2							
	T-502	4.5 / 18		0.5 / 1.8	2.0 / 5.0							
	T-502	9 / 18		0.9 / 1.8	3.6 / 5.8							
1000	T-1000	4.5	2 speed: 3-phase 220 or 380 V	0.9	3.7			190	1100	460	950	
	T-1002	9		1.9	4.6							
	T-1002	4.5 / 9		0.9 / 1.9	3.6 / 4.6							
	T-1002	4.5 / 18		0.9 / 3.5	4.0 / 9.7							
	T-1002	9 / 18		1.9 / 3.5	5.5 / 9.5							

1) Capacity of the hoist can be increased by using multiple sheave blocks.

2) Voltage of the electric motors: 3-phase 220V, 380V or 415V, 50 Hz or 60 Hz; for a network with 5 conductors (3 phases + neutral + earth), or with 4 conductors (3 phases + earth). Please specify upon request.

On request: other speeds (up to max. 30 m); adjustable speeds and hoists with pneumatic or hydraulic motors.

3) Special non-rotating wire rope with swivel hook. Effective breaking strain: dia. 8.3 mm = 4800 daN. Please specify length of wire rope.