







Traction hoists with limitless pulling length for man riding and material handling Capacity from 300 to 3000 kg

tirak™

Whether as a replacement for a crane ...



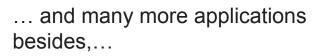


... or as a work-horse, ...

... for a suspended platform, ...



... or as a drive for hoisting a variety of types of working platform...





... with the tirakTM we guarantee that you always have a solution to your problem which is both practical and economical!

The tirak™ is a traction hoist – it drives the rope without reeling it in. For you, this means:

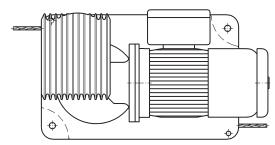
You can lift and pull as far or as high as you want.

Thanks to the tirak $^{\text{TM}}$ rope pass-through design, unlimited rope lengths are theoretically possible, making the tirak $^{\text{TM}}$ a flexible option for every application.

With the tirak™ you can "climb upwards" with one rope for as far as you have to. This is why it is frequently used as a drive for man riding, as a single-person work seat and also for suspended platforms on famous high-rise buildings throughout the world.

The T-series

The T series is the first model in the tirak™ range and works with two traction sheaves. The wire rope runs through the two traction sheaves along an S-shaped path. The symmetrical design of the T-series makes these the only models capable of pulling in both directions with the same force. As such, they are ideal for use in all horizontal tasks where loads need to be moved back and forth.



The X-series

The X-series models use a single traction sheave to move the rope. The rope runs through a fittingly-sized groove in the traction sheave and is also pressed into place by means of a press system. This further increases the true load-bearing capacity to ensure even greater safety. At a particular point on the traction sheave the incoming and outgoing ropes cross over, lending the X series its name.

tirak™

Using this functional principle, all of the models achieve a steady and constant rope speed; regardless of the position of the load.

Top quality

The tirak™ combines proven technology with modern developments and state-of-the-art production methods in order to achieve high standards of quality.

Development and production – Made in Germany

Durable and powerful, yet nevertheless easy to transport, the tirak™ hoist provides the highest levels of reliability and dependability even in demanding environments, such as the harsh conditions on construction sites. This is why the tirak™ has now become the No. 1 motorized traction hoist worldwide.

Efficiency

Two decisive reasons for this success are the following profitability arguments:

- 1. Through the single rope drive, almost no maintenance costs are incurred beyond the mandatory safety inspections.
- 2. The extremely gentle rope drive ensures that the rope has a long service life.

Safety

Numerous details ensure the greatest possible safety when using the tirak TM . All of the relevant standards and safety regulations are taken into account during development.

All tirak™ systems intended for man riding are equipped with integrated overload protection which reliably shuts down the tirak™ in the event of overloading.

The highest safety standards apply when man riding. Certified to EN1808 by an independent testing authority, the tirak™ hoist fulfils all of these requirements.

tirak TM for man riding





Work seat during repair work.

Universal use

The tirak $^{\text{TM}}$ hoist is the ideal and universal option for man riding.

The compact dimensions and low weight enable easy handling and simplify the integration of the tirak TM hoist into the company's own applications, thus increasing productivity and efficiency.

The low weight of the tirak™ permits the system to have a higher payload.

A complete series of tirak™ models offers load capacities from below 300 kg up to 2,000 kg for man riding.

This saves you a lot of time – and, of course, saves you money too!



Application

The tirak™ hoist can either be attached to a fixed mounting in order to pull the load on the wire rope or the rope is fixed and the tirak™ moves along the rope

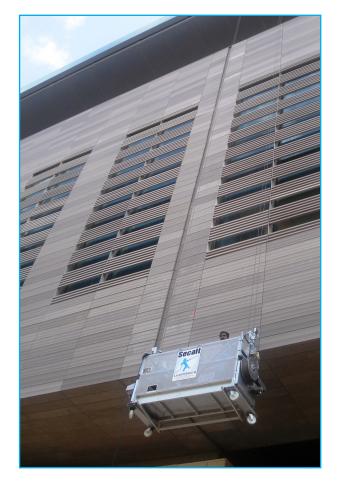
with the load. A wide range of accessories is available for attaching the tirak TM or the load, to suit the requirements of your application.

If the tirak™ utilizes a fixed

mounting then deflection rollers can be used to guide or reeve the rope.

So that the right tirak $^{\text{TM}}$ solution can be found for every task.





Suspended Access

tirak TM





Suspended Access

Tractel® has more than 50 years of experience in the development of tailor-made solutions, both for temporary and permanent access.

Based on the tirak[™] our engineers are able to formulate innovative and technically demanding access solutions.

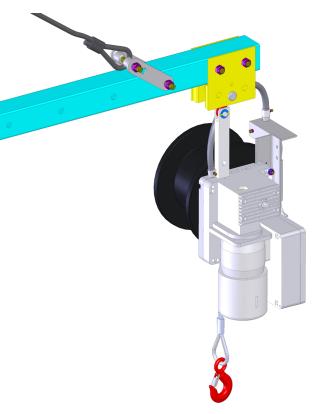
The Tractel® product range includes a large selection of suspended working platforms with which workers can be efficiently transported with their tools and material to the correct height and ergonomically positioned.

With the $tirak^{TM}$ at the heart of every system, you can rely on the tested safety and proven reliability of this special hoist during these applications too.



www.tractel.com

tirak TM for material handling



tirak™ over the load

Possibilities

Three forms of application offer plenty of scope for the use of the tirak TM :

- 1. tirak™ over the load
- 2. tirak[™] anchored "within easy reach" whereby this is a very broad term given the open length of the rope. Only a pulley needs to be fixed at the upper position. This simplifies preparation and saves lots of time.
- 3. There is an even quicker method if you wish to hoist through the opening in a load-bearing wall/ceiling: Simply place the tirak $^{\text{TM}}$ behind or on top of it.

However, here the use of a mobile hoist is recommended with the tirak $^{\text{TM}}$.

Versatility

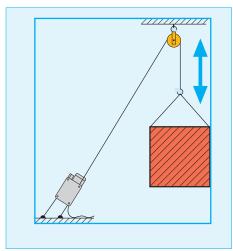
Of course, the tirak™ is not only restricted to man riding.

Its special advantages are

- long weight,
- compact shape,
- unlimited rope length

enable easy handling and simplify the integration of the tirak™ hoist into the company's own applications, thus increasing productivity and efficiency.

A complete series of tirak™models offers load capacities from below 300 kg up to 3000 kg for material handling.



Hoisting via a pulley (schematic diagram)

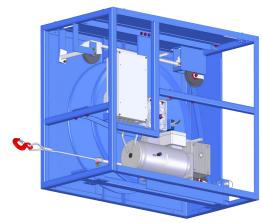


Mobile hoists

They are the logical supplement to the tirak™ series.

tirak[™] hoists can be equipped with a mobile frame in order to provide them with better protection against day-to-day damage or for easier transport.

This simplifies the handling of larger hoists or models fitted with a wire rope reeler, in particular, and reliably protects the tirak™ against hard impacts. A separate wire rope reeler can also be integrated into the frame if especially long ropes need to be wound up or stored.

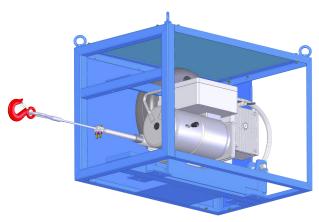


Wire rope reeler

Thanks to the rope pass-through design of the tirak $^{\text{TM}}$ a wire rope reeler is not absolutely essential. The free end of the rope can simply be left hanging.

If you would prefer not to, three different types of rope reelers are available:





- The simplest solution consists of mounting a free reeler on the tirak™ into which the wire rope is fed. The rigidity of the wire rope causes it to wind and unwind automatically.
- When used with longer rope lengths, the rope reeler is driven by an extended traction sheave shaft. Ropes of up to several hundred metres in length can be stored economically on the tirak[™]. This also enables simple transportation.
- A separately driven rope reeler in a frame is utilized for even longer rope lengths.
 On mobile tirak™ systems this reeler is integrated into the frame, creating a single unit.



Free running reeler

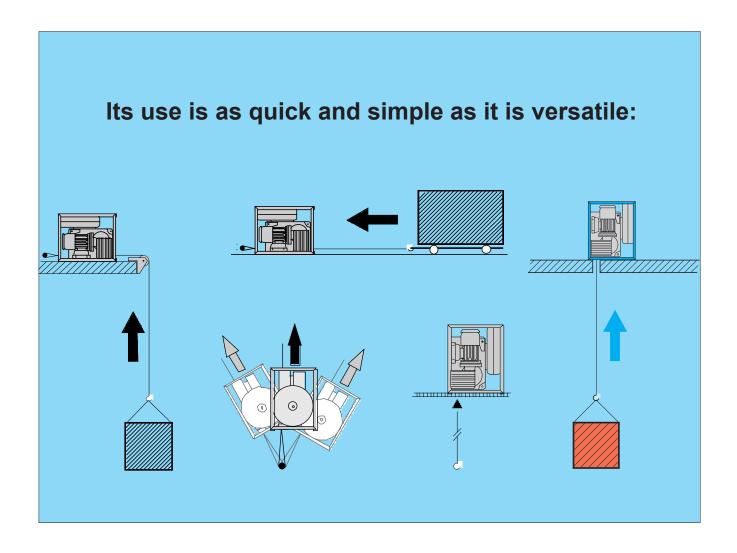


Separately driven wire rope reeler



Driven wire rope reeler www.tractel.com

tirak TM Applications

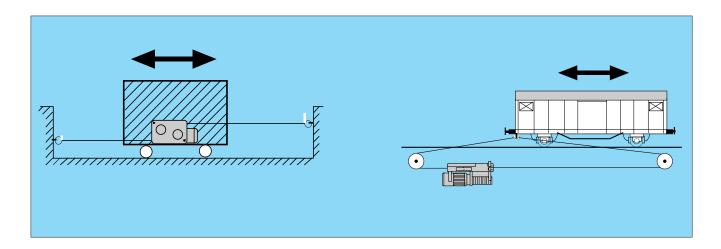


tirak™ T-series

The T series can hoist in both directions thanks to the symmetrical structure of its two traction sheaves.

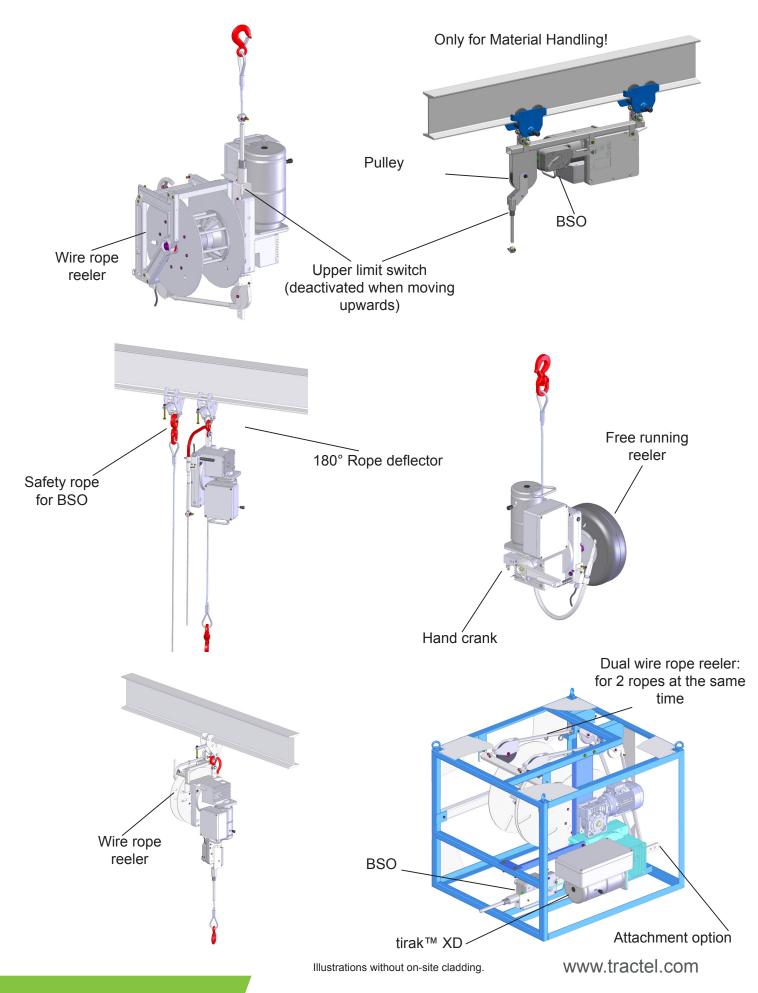
Hoisting ≠ Lifting

Depending on the friction factors, many times the hoisting capacity can be hoisted using the $tirak^{TM}$.



Various fittings





tirak TM Technical specifications

Working speeds (m/min)

	Drive types*			for X 20	000 / 3000	
		50 Hz	60 Hz	50 Hz	60 Hz	
0 =	3 Ph	9	11	6	7	
	C	r pneumatic d	rive or hydrau	ılic drive	'	
2 =	3 Ph	18	22	12	14	
3 =	3 Ph	9/18	11/22	6/12	7/14	
4 =	3 Ph	4,5	5,5	4,5	5,5	
5 =	3 Ph	4,5/9	5,5/11	3/6	3,5/7	
6 =	3 Ph	4,5/18	5,5/22	3/12	3,5/14	
7 =	3 Ph	stepless (0 to 9 / 18 / 30)				
1 =	1 Ph	9	11	-	-	

* Drive types:

3 Ph = Three-phase motor 1 Ph = AC motor (single phase)

Optional wire rope reelers for material handling & man-riding*

· · · · · · · · · · · · · · · · · · ·										
Overview				equest) no	length)	ended for	Single reeler GM = triggered by a separate gearmotor op. GM = optional triggering with gearmoto Other tirak™ are directly triggered by the tirak™ (XXX m) = maximum usable length			rmotor tirak™ shaft
tirak™	Ø Rope	Capacity (kg)	Ø350 mm	Ø400 mm	Ø450 mm (1)	Ø600 mm	90m (Plastic)	120m (op. GM)	220m (op. GM)	320m (op. GM)
X 300	Ø 8mm	300	40m	60m	-	-	90m (75m)	-	-	-
X 400	Ø 8mm	400	40m	60m	-	-	90m (75m)	-	-	-
X 310	Ø 6mm	300	60m	80m	-	-	160m (140m)	-	-	-
X 510	Ø 6mm	350	60m	80m	-	-	160m (140m)	200m (189m)	360m (341m)	520m (493m)
X 500	Ø 8mm	500	40m	60m	80m	-	90m (75m)	120m (110m)	220m (205m)	320m (300m)
L 500	Ø 8mm	500	40m	60m	-	-	-	-	-	-
X 600	Ø 8mm	600	40m	60m	80m	-	90m (75m)	120m (110m)	220m (205m)	320m (300m)
X 800	Ø 8mm	800	40m	60m	80m	-	90m (75m)	120m (110m)	220m (205m)	320m (300m)
X 520	Ø 9mm	500	33m	50m	65m	-	70m (55m)	95m (85m)	170m (155m)	250m (230m)
X 620	Ø 9mm	600	33m	50m	65m	-	70m (55m)	95m (85m)	170m (155m)	250m (230m)
X 820	Ø 9mm	800	33m	50m	65m	-	70m (55m)	95m (85m)	170m (155m)	250m (230m)
X 1020	Ø 9mm	980	33m	50m	65m	-	70m (55m)	95m (85m)	170m (155m)	250m (230m)
X 1220	Ø 9mm	1250	33m	50m	65m	-	70m (55m)	95m (85m)	170m (155m)	250m (230m)
X 1030	Ø 10mm	1000	27m	40m	55m	-	-	80m (70m)	150m (135m)	220m (200m)
X 1530	Ø 10mm	1500	27m	40m	55m	-	-	80m (70m)	150m (135m)	220m (200m)
X 2050	Ø 14mm	2000	-	-	40m	110m	-	55m (GM)	65m (GM)	-
X 3050	Ø 14mm	3000	-	-	40m	110m	-	55m (GM)	65m (GM)	-
X 300P	Ø 8mm	300	40m	60m	-	-	90m (75m)	-	-	-
X 400P	Ø 8mm	400	40m	60m	-	-	90m (75m)	-	-	-
X 500P	Ø 8mm	500	40m	60m	80m	-	90m (75m)	120m (110m)	220m (205m)	320m (300m)
X 520P	Ø 9mm	500	33m	50m	65m	-	70m (55m)	95m (85m)	170m (155m)	250m (230m)
X 620P	Ø 9mm	600	33m	50m	65m	-	70m (55m)	95m (85m)	170m (155m)	250m (230m)
X 820P	Ø 9mm	800	33m	50m	65m	-	70m (55m)	95m (85m)	170m (155m)	250m (230m)
X 1030P	Ø 10mm	1000	27m	40m	55m	-	-	80m (70m)	150m (135m)	220m (200m)
X 2050P	Ø 14mm	2000	-	-	40m	110m	-	55m (GM)	65m (GM)	-

^{*}Reeler only available for listed tirak™

Technical specifications



Optional wire rope reelers for mobile winches*

Overview			Free running wire rope reeler (Rope length)						
tirak™	Ø Rope	Capacity (kg)	MW	MW 120m	MW 220m	MW 300m GM	MW 500m	MW 800m GM	MW 1000m GM
X 510	Ø 6mm	350	80m	200m (189m)	360m (341m)	-	820m (793m)	-	-
X 500	Ø 8mm	500	60m	120m (110m)	220m (205m)	-	500m (480m)	-	1000m (978m)
X 600	Ø 8mm	600	60m	120m (110m)	220m (205m)	-	500m (480m)	-	1000m (978m)
X 800	Ø 8mm	800	60m	120m (110m)	220m (205m)	-	500m (480m)	-	1000m (978m)
X 520	Ø 9mm	500	50m	95m (85m)	170m (155m)	-	400m (380m)	-	800m (780m)
X 620	Ø9mm	600	50m	95m (85m)	170m (155m)	-	400m (380m)	-	800m (780m)
X 820	Ø9mm	800	50m	95m (85m)	170m (155m)	-	400m (380m)	-	800m (780m)
X 1020	Ø9mm	980	50m	95m (85m)	170m (155m)	-	400m (380m)	-	800m (780m)
X 1220	Ø9mm	1250	50m	95m (85m)	170m (155m)	-	400m (380m)	-	800m (780m)
X 1030	Ø10mm	1000	40m	80m (70m)	150m (135m)	-	350m (333m)	-	700m (686m)
X 1530	Ø10mm	1500	40m	80m (70m)	150m (135m)	-	350m (333m)	-	700m (686m)
X 2050	Ø14mm	2000	40m / 110m	-	-	300m (287m)	-	800m (765m)	-
X 3050	Ø14mm	3000	40m / 110m	-	-	300m (287m)	-	800m (765m)	-
X 500P	Ø 8mm	500	60m	120m (110m)	220m (205m)	-	500m (480m)	-	1000m (978m)
X 520P	Ø 9mm	500	50m	95m (85m)	170m (155m)	-	400m (380m)	-	800m (780m)
X 620P	Ø 9mm	600	50m	95m (85m)	170m (155m)	-	400m (380m)	-	800m (780m)
X 820P	Ø 9mm	800	50m	95m (85m)	170m (155m)	-	400m (380m)	-	800m (780m)
X 1030P	Ø 10mm	1000	40m	95m (85m)	170m (155m)	-	350m (333m)	-	700m (686m)
X 2050P	Ø 14mm	2000	40m / 110m	-	-	300m (287m)	-	800m (765m)	-

				Double reeler Mobile Winch- in f = maximum usabl	
			MW 2x120m	MW 2x220m	MW 2x320m
XD 300P	Ø 8mm	350	2x120m (2x110m)	2x220m (2x205m)	-
XD 310P	Ø 6mm	350	2x200m (2x189m)	2x360m (2x341m)	-
XD 500P	Ø 8mm	500	2x120m (2x110m)	2x220m (2x205m)	2x320m (2x300m)
XD 800P	Ø 8mm	800	2x120m (2x110m)	2x220m (2x205m)	2x320m (2x300m)
XD 720P	Ø 9mm	700	2x95m (2x85m)	2x170m (2x155m)	2x250m (2x230m)
XD 820P	Ø 9mm	800	2x95m (2x85m)	2x170m (2x155m)	2x250m (2x230m)
XD 1020P	Ø 9mm	1000	2x95m (2x85m)	2x170m (2x155m)	2x250m (2x230m)
XD 1030P	Ø 10mm	1000	2x80m (2x70m)	2x150m (2x135m)	2x220m (2x200m)

^{*}Reeler only available for listed tirak™

tirak TM Fall arrest device Blocstop™

An additional safety system in accordance with DIN EN 1808 is mandatory in man riding applications. The system is used to secure the work basket or the platform on which personnel are working against falling.

Fall protection

That is precisely what our Blocstop™ BSO does. It is small, light and compact and attached to the working platform where the safety rope runs through it.

If the movement of the safety rope exceeds a specified speed then the BSO triggers automatically and securely catches the load. The safety rope is held between the clamping jaws, preventing the rope from slipping any further. However, the surface of the clamping jaws is large enough to prevent damage to the rope. The Blocstop $^{\text{TM}}$ is designed in such a way that the clamping jaws grip tighter, the higher the load on the rope.

Furthermore, the Blocstop™ has been tested using many times the nominal load in order to ensure an extremely large safety margin.



Electrical deactivation

All of the BSO models can be equipped with an electric switch which immediately switches off the tirak $^{\text{TM}}$ if triggered, for example. This option increases safety in the event of an emergency stop as it prevents rope slack above the platform.

Additional models

The Blocstop™ family includes two additional models: the BSA and the BS.

In contrast to the BSO, the BSA's clamping jaws are not triggered by excessive speed but rather by monitoring the suspension rope. The BSA is held open by a lever which is supported on the suspension rope by a roller. If the suspension rope breaks then this support stops and the BSA closes.

In precisely the same way as the BSO, the clamping jaws clamp the safety rope and prevent the load or the platform from falling.

On platforms with two suspension points, arranging the suspension and safety ropes in parallel enables the system to monitor the tilt of the platform. If one side of the platform descends then the BSA closes on the lower side, catching the platform before the tilt reaches a critical angle.

The BS functions in a manner similar to the BSA with the exception of the fact that the lever is activated either manually or mechanically.



Fall arrest device Blocstop™ tirak™



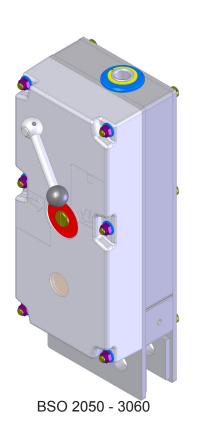
Model		/LL n t	Rope specification		Bolt Ø in mm
	Man riding	Material handling	Ø in mm	Min. breaking load in kN	
BSO 510	_	0,35	6	13,7	
BSO 500	0,6	0,6	8	47,1	
BSO 520	0,6	0,6	9	47,1	
BSO 1000	0,7	0,7	8	54,9	12
BSO 1020	0,8	0,8	9	62,8	
BSO 1030	1,0	1,0	10	78,5	
BSO 1040	1,0	1,0	11,5	78,5	
BSO 2050	2,0	2,6	14	157,0	22
BSO 2360	2,3	3,0	16	180,5	22



BSO 500 - 510 - 520



BSO 1000 - 1020 - 1030



tirak TM Anchoring points Corso

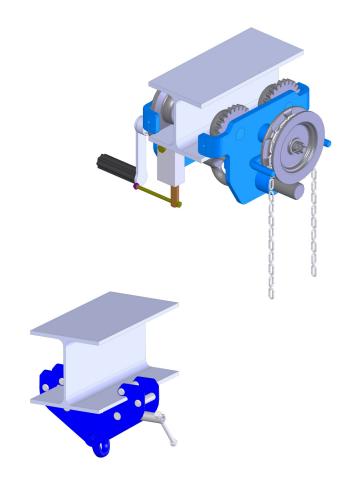
Mounting clamps, push and geared trolleys are frequently used for material transport.

However, there are an increasing number of cases where these products are also to be used for man riding.

This is now easily possible, because the Corso mounting clamps and the Corso push and geared trolleys meet the demands of EN 1808 for man riding.

The systems were subjected to intensive testing in order to demonstrate that all of the high standards for man riding are fulfilled without exception.

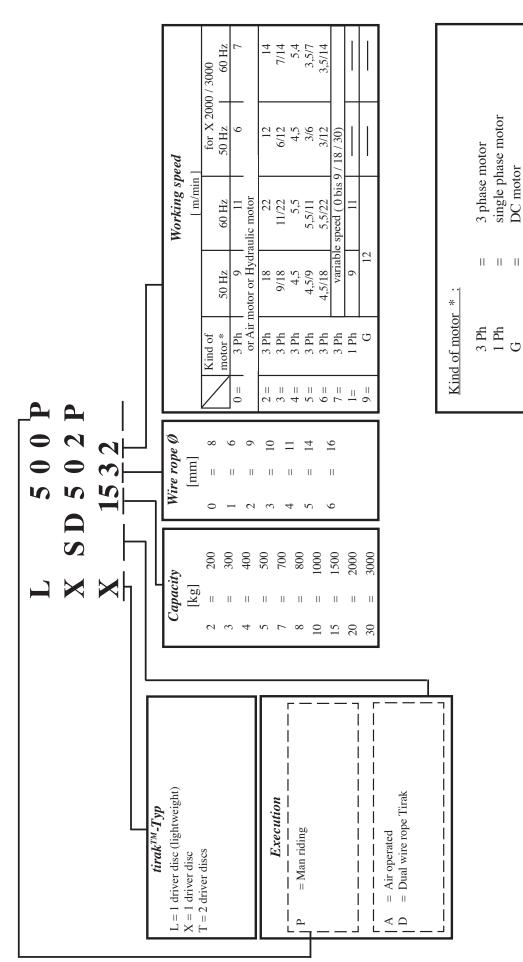
The push and geared trolleys are equipped with an easily engaged and disengaged brake system for greater safety. This system serves to prevent unintentional movement and provides greater safety when working in the basket or on the platform.



Model	WLL	Flange width	Total width	Total height	Rollers Ø	Smallest cam radius			
	in t	in mm	in mm	in mm	in mm	im mm			
Mounting clam	Mounting clamps for man riding								
LT-1B	1	75 - 235	180 - 380	155 - 190	_	_			
LT-2B	2	75 - 235	180 - 380	155 - 190	-	_			
LT-3B	2,5	95 - 335	230 - 500	215 - 275	_	_			
LT-5B	3	95 - 335	230 - 500	215 - 275	_	_			
LT-10B	7	95 - 345	255 - 515	250 - 315	_	_			
Push trolleys f	for man riding								
Corso 0,5	0,5	62 - 220	324	182	62 62	0,9			
Corso 0,5	0,5	220 - 300	424	102		0,9			
Corso 1,0	1,0	58 - 220	334	210		1,0			
C0150 1,0	1,0	220 - 300	434	210		1,0			
Corso 2,0	2,0	68 - 220	324	242	82	1,2			
C0150 2,0	2,0	220 - 300	438	242		1,2			
Corso 3,0	3,0	74 - 220	347	310	100	1,3			
C0180 3,0	3,0	220 - 300	446	310	100	1,5			
Geared trolley	s for man riding								
Corso 1,0	1,0	58 - 220	334	210	62	1,0			
C0150 1,0	1,0	220 - 300	434	210	02	1,0			
Corso 2,0	2,0	68 - 220	342	242	82	1,2			
00130 2,0	2,0	220 - 300	438	272	02	1,4			
Corso 3,0	3,0	74 - 220	347	310	100	1,3			
00130 3,0	3,0	220 - 300	446	310	100	1,5			

Type designation of tirak™







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