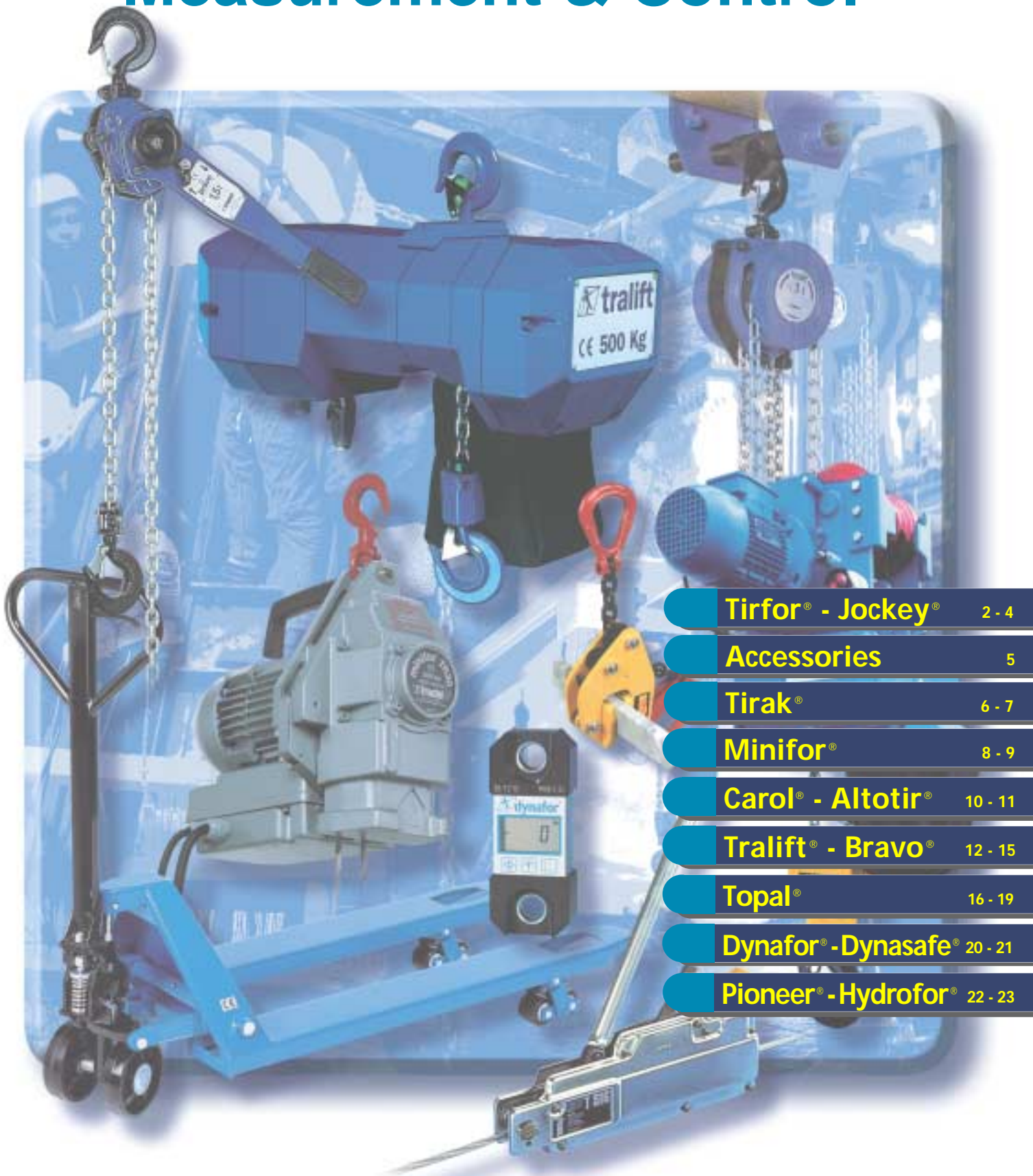


Lifting - Materials Handling Measurement & Control



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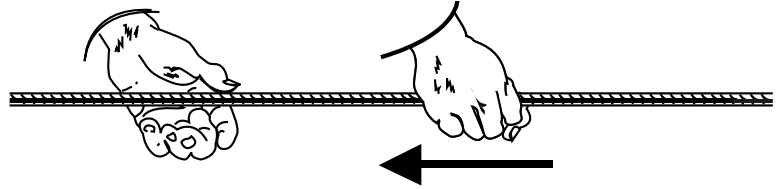
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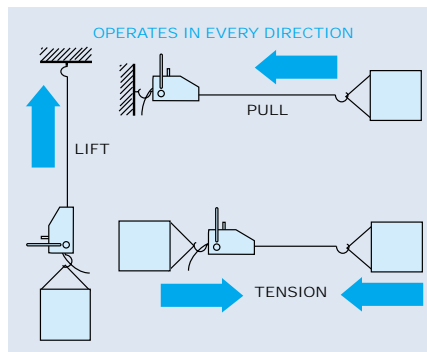
tirfor®

THE Tirfor® PRINCIPLE

- A TIRFOR has neither wheels nor gears.
 - Two jaws alternately pull the wire rope and the load in the required direction, just like pulling on a rope with both hands.



- The jaws are self-clamping, providing immediate and gradual safety - the heavier the load, the tighter they clamp.
- A release mechanism allows the wire rope to be inserted between the jaws.

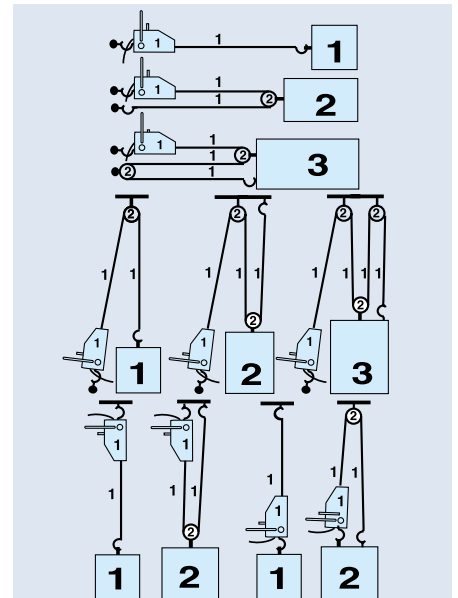


Multifunction

- Work can be performed in any position: horizontal, vertical or at an angle.
- There is no limit to the length of wire rope.
- The capacity can be increased.

Safe and reliable

- Constant control of the load during lifting and lowering with accuracy to within one millimetre. When stationary the load is automatically distributed between the two jaw units.
- Overload safety device
- TU range approved for lifting personnel in most countries.



Increased capacity

- Using the sheave block technique, the capacity of the TIRFOR can be increased by a factor of 2, 3, 4 or more (see diagrams).
- The figures given must be multiplied by the nominal capacity of the device.
- When calculating the working load limit, include a loss of around 4% per sheave, due to the friction of the sheaves.

Tirfor® 500 SÉRIES

- Compact, lightweight and easy to handle, TIRFOR T-500 units combine ease of handling and safety. They are recommended for applications where portability is an important criteria.

Model	WLL	Weight machine (kg)	Weight wire rope (20 m) (kg)	Special Tirfor wire rope ø (mm)	Breaking strain wire rope (kg)	Dimensions of the machine L x l x w (mm)	Dimensions of the handle opened/closed (mm)
T-508D	800 kg	6.6	6.1	8.3	4000	420 x 250 x 59	690 - 400
T-816D	1600 kg	13.5	13.1	11.5	8000	530 x 315 x 127	1150 - 650
T-532D	3200 kg	24	26.6	16.3	16000	620 x 355 x 130	1150 - 650



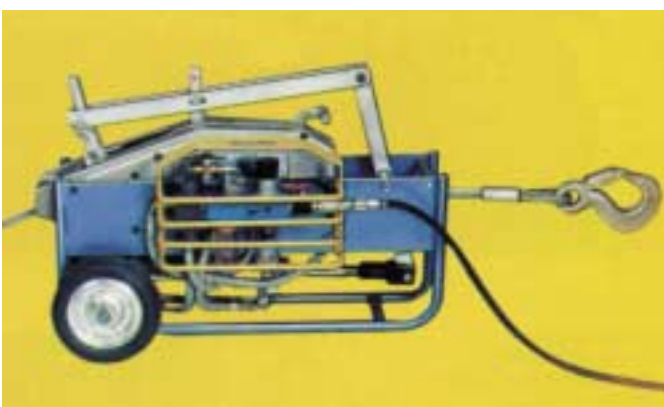
Tirfor® TU SÉRIES

- For lifting, pulling and positioning heavy loads, the models in the TIRFOR TU range are unrivalled in terms of durability and sturdiness. They are also approved for lifting personnel (see national regulations).

Model	WLL	Weight machine (kg)	Weight wire rope (20 m) (kg)	Special Tirfor wire rope ø (mm)	Breaking strain wire rope (kg)	Dimensions of the machine L x l x w (mm)	Dimensions of the handle opened/closed (mm)
TU-8	800 kg	8.4	6.1	8.3	4000	527 x 265 x 108	770 - 510
TU-16	1600 kg	20	13.1	11.5	8000	660 x 330 x 140	1190 - 680
TU-32	3200 kg	27	26.6	16.3	16000	676 x 330 x 156	1190 - 680



HYDRAULIC & PNEUMATIC Tirfor®



• PNEUMATIC TIRFOR

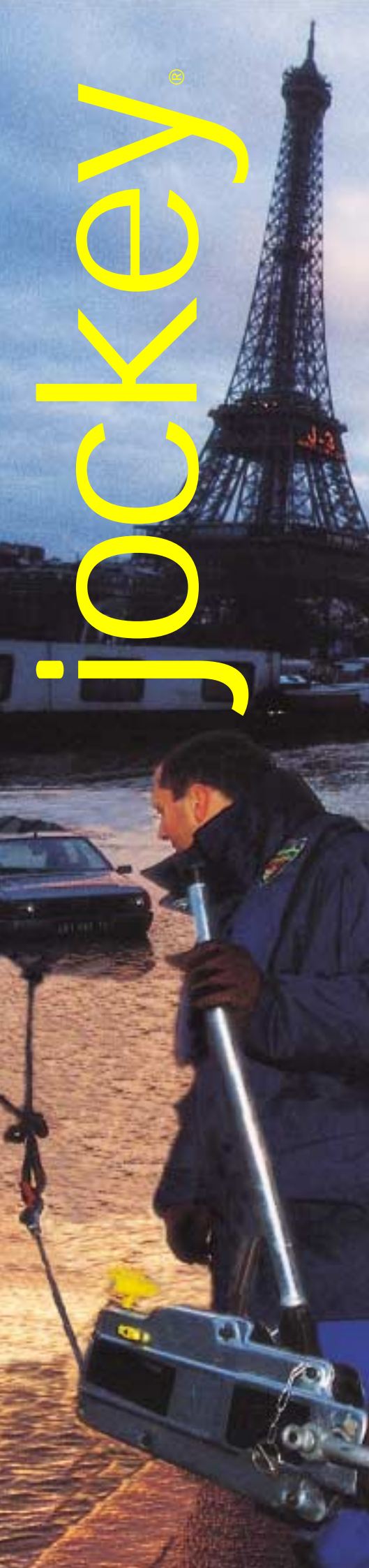
- TIRFOR TU-32P is mainly used in applications on building sites and in industries where there is a risk of explosion or where compressed air facilities are readily available (power stations, shipyards, etc.).



• HYDRAULIC TIRFOR

- This consists of a hydraulic power pack with an electric or petrol motor, which allows remote operation - either singly or with up to 4 TIRFOR TU-16H or TU-32H machines together, each fitted with hydraulic jacks.

jockey®



Jockey® J3

- Universal lifting and pulling device, capacity: 300 kg.
- Ultra-lightweight and robust, easy to operate and maintain, can be used in numerous applications.

Model	WLL	Weight of unit (kg)	Ø Special Jockey wire rope 10 m (mm)	Effort on handle (kg)	Dimensions of the machine L x l x w (mm)
Jockey J3	300 kg	1.750	4.5	±12	320 x 200 x 40



Jockey® J5

- The JOCKEY J5 is available in two versions:
 - 10 m wire rope, two anchoring slings (2 m + 2 m).
 - 20 m wire rope, two anchoring slings (2 m + 2 m) and a sheave block to double the strength of the device.

Model	WLL	Weight of unit (kg)	Ø Special Tirfor wire rope* 10 m (mm)	Effort on handle (kg)	Dimensions of the machine L x l x p (mm)
Jockey J5	500 kg	3.750	6.5	20	370 x 215 x 55

* Cable travel per complete stroke (to and from) of the lever: 25 mm, rope breaking load 3100 kg
 ** Length of handle: 495 mm



Tirvit®

- Tensioning device for wires and wire ropes.
- Lightweight, easy to handle and compact.
- 3 models: F2, F3, F4 and, available as an option, the F3D with incorporated load indicator.

Model	WLL	Weight of unit (kg)	Ø Cable or Ø wire to be pulled (mm)	To and fro travel of lever (mm)	Frog model
F2	400 kg	4	up to 8	65	G2
F3 & F3D	600 kg	5.2	7 - 15	75	G3
F4	800 kg	6.2	14 - 18	90	G4



Maxiflex WIRE ROPE

Model	Ø Wire rope (mm)	Unit model to equip
J	4.7	Jockey J3
K	6.5	Jockey J5
C8	8.3	T-508D & TU-8
C12	11.5	T-516D & TU-16
C18	16.3	T-532D & TU-32

Maxiflex wire ropes are fitted with a safety hook secured by a ferrule



GAMME DES ACCESSOIRES

A comprehensive range of wire ropes and accessories designed for your Tractel lifting and pulling equipment.

- **SLINGS**
 - Made of Maxiflex wire ropes, specially designed for the TIRFOR
- **REELERS AND DRUMS**
 - Lightweight and practical, for easy transport and winding of wire ropes
- **TRACTANCRAGE**
 - Hot galvanised steel anchorage system creating a fixed point in the ground for : • Guying pylons and posts • Attachment constructions • Fixed point for pulling or lifting operations etc.
- **HOOKS**
 - High-tensile forged alloy steel eye hooks with safety catch.
 - Forged steel sliding hooks for slings.
- **CONI-KLAM**
 - Wire rope clamps with conical coupling for quick attachment to extension wire ropes or slings.
- **WIRE ROPE GRIPPERS**
 - Wire rope gripper with self-clamping cam for gripping a wire or wire rope in any location, to hold a load or maintain tension while awaiting adjustment.



JML® WIRE ROPE WINDER

• **WIND, UNWIND AND STORE ALL YOUR WIRE ROPES EASILY AND WITHOUT RESTRICTIONS ...**

- The JML winder is available in two sizes :
 - Model 11.30 stores up to 50 m of wire rope, diameter 8.3 mm.
 - Model 16.30 stores up to 60 m of wire rope, diameter 11.5 mm.



tirak®



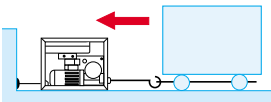
Tirak®

- The TIRAK is a powered hoist through wire which the rope passes. It has the following advantages :
 - Unlimited length of wire rope.
 - Constant speed.
 - Orientation in direction of effort.
 - Mobile and compact.
 - High lifting capacity: up to 3000 kg.
 - Safe and reliable design.
 - Also available with hydraulic or pneumatic motor.



Tirak® - MÉTHOD OF OPERATION

- **to anchor the frame**

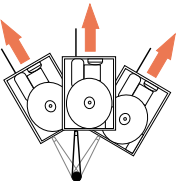


All you need is a sling or a chain, secured to a sufficiently strong fixed point.

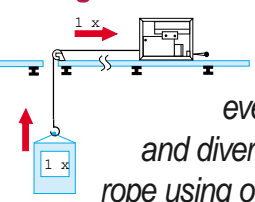
- **orientation**

automatically aligns itself with the pull.

Its capacity and speed always remain constant.



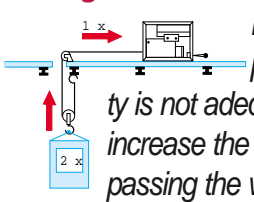
- **lifting a load**



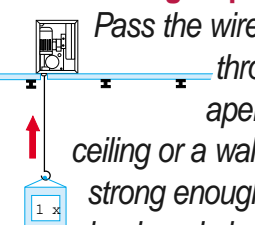
Anchor the hoist wherever you wish and divert the wire rope using one or more return pulley blocks.

- **lifting and sheave blocks**

If the direct pulling capacity is not adequate, increase the capacity by passing the wire rope round one or more sheave blocks.



- **Direct lifting or pulling**

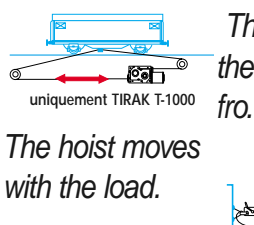


Pass the wire rope through an aperture in a ceiling or a wall which is strong enough to take the load, and place the hoist against the opening.

- **To-and-fro movement**

The hoist moves the load to and fro.

The hoist moves with the load.



uniquement TIRAK T-1000

Tirak® X SERIES

Model	WLL	Wire rope speed (m/min)	Motor type T = 1 phase T = 3 phase	Lifting motor power (kW)	Wire rope diameter (mm)	Hoist weight (kg)	Hoist dimensions L x l x w (mm)
x-301	300 kg	9	M	0.5	8.3	29	430 x 250 x 213
x-300		9	T	0.5	8.3	27	400 x 250 x 213
x-302		18	T	0.9	8.3	27	400 x 250 x 213
x-501	500 kg	9	M	0.9	8.3	49	546 x 297 x 256
x-500		9	T	0.9	8.3	40	585 x 297 x 250
x-502		18	T	1.8	8.3	43	585 x 297 x 250
x-506		4.5/18	T	0.45/1.8	8.3	47	500 x 297 x 250
x-503		9/18	T	0.9/1.8	8.3	47	500 x 297 x 250
x-800	800 kg	9	T	1.5	8.3	45	541 x 297 x 256
x-802		18	T	3	8.3	49	535 x 297 x 256
x-806		4.5/18	T	0.75/3.0	8.3	49	510 x 297 x 256
x-803		9/18	T	1.75	8.3	49	510 x 297 x 256
x-1020	1000 kg	9	T	1.9	9.5	45	-
x-1025		18	T	0.9/1.9	9.5	55	-
x-1026		4.5/18	T	0.9/3.8	9.5	71	-
x-1023		9/18	T	1.9/3.8	9.5	56	-
x-3050	3000 kg	6	T	3.8	14	105	650 x 400 x 360
x-3052		12	T	7.5	14	117	660 x 400 x 360



Tirak® T SERIES

Model	WLL	Wire rope speed (m/min)	Motor type T = 1 phase T = 3 phase	Lifting motor power (kW)	Wire rope diameter (mm)	Hoist weight (kg)	hoist dimensions L x l x w (mm)
T-1020P	1000 kg	9	T	1.95	9.5	72	-
T-1022P		18	T	3.5	9.5	72	-
T-1025		4.5/9	T	0.9/1.95	9.5	85	-
T-1026		4.5/18	T	0.9/3.5	9.5	85	-



Tirak® HYDRAULIC AND PNEUMATIC VERSION

Model	WLL	Wire rope speed (m/min)	Commande T = pendant D = direct	Wire rope diameter (mm)
XA-300P	300 kg	up to 9	T T	8.3
XA-500P	500 kg	up to 9	D T	8.3
TA-1020P	980 kg	up to 9	D	9.5

Pneumatic Tirak



Model	WLL	Wire rope speed (m/min)	Hydraulic motor E = electric T = petrol	Wire rope diameter (mm)
THB-1020	980 kg	as far as 7	E T	9.5

Hydraulic Tirak



Tirak® IN FRAME WITH WIRE ROPE WINDER

Model	WLL	Lifting speed (m/min)	Motor power (kW)	Wire rope diameter (mm)	With wire rope length (m)	Weight with wire rope (kg)	With wire rope length (m)	Weight with wire rope (kg)
Tirak	300 kg	9	0.5	8	80	60	-	-
		18	0.9	8	80	60	-	-
in frame	500 kg	4.5	0.5	8	80	75	500	115
		9	0.9	8	80	75	500	115
		4.5/9	0.5/0.9	8	80	85	500	125
		4.5/18	0.5/1.8	8	80	85	500	125
With rope reeling drum	800 kg	9/18	0.9/1.8	8	80	85	500	125
		4.5	0.8	8	80	80	500	120
		9	1.6	8	80	80	500	120
		4.5/9	0.8/1.6	8	80	85	500	125
	980 kg	4.5/18	0.8/1.6	8	80	105	500	145
		9/18	1.75/3.5	8	80	85	500	125
		4.5	0.9	9	70	85	400	125
		9	1.8	9	70	80	400	120
	3000 kg	4.5/9	0.9/1.8	9	70	90	400	130
		4.5/18	0.9/3.8	9	70	105	400	145
		9/18	1.9/3.8	9	70	90	400	130
		6	3.8	14	110	200	500	550
	12	7.5	14	110	225	500	550	

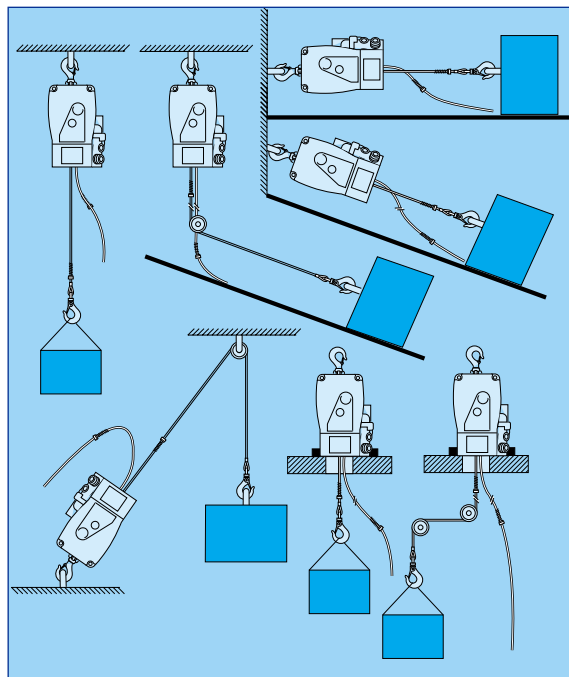


minifor®

Minifor®

• A comprehensive range of universal, high-performance portable electric hoists, for work at any height.

- Capacity: 100 to 950 kg.
- Unlimited height of lift.
- Wire rope hanging free or on winder.
- Hard-wired or radio remote control.
- Direct lifting or sheave block kit.
- Single phase or three-phase motor.



Minifor® TR10 - TR30 - TR30S - TR50

Compact, easy to handle and lightweight, the Minifor range is ideal for working on building sites.

• **HIGH PERFORMANCE - STURDY**

- Excellent weight-power ratio.
- Aluminium alloy housing.
- Unlimited length of lifting wire rope.

• **SAFETY**

- Adjustable upper and lower end stops.
- Brake incorporated in motor.
- HP5 wire rope, diameter 6.5 mm.

• **ERGONOMICS**

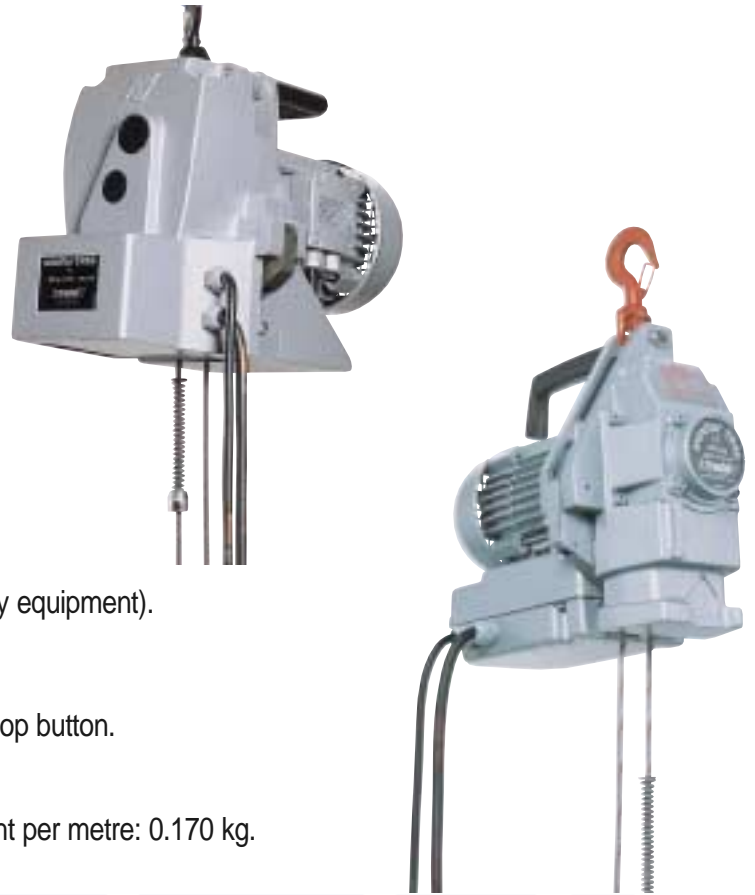
- Built-in carrying handle.
- Quick and easy to set up.
- Swivelling suspension hook.

• **STANDARD**

- Conforms to : - Machinery directive 98/37/EEC
- European standard EN 292 (safety equipment).

• **SPECIFICATIONS**

- Degree of protection: IP 55.
- Double-insulated pendant control with emergency stop button.
- Motors have protective thermal cut-out.
- Radio control: 433 MHz (418 MHz at 115 volts).
- Wire rope \varnothing 6.5 mm; breaking load 2500 daN; weight per metre: 0.170 kg.



Model	Dimensions L x W x D (mm)	Weight without wire rope (kg)	WLL		Speed		Power supply*			Wire rope reeler		Radio control
			Direct (kg)	Sheaved (kg)	Direct (m/min)	Sheaved (m/min)	Single phase 115 Volt	Single phase 230 Volt	3 phase 400 Volt	20 m	35 m	
TR10	355 x 420 x 180	21	100	150	15	•	•	•	•	•	•	•
				200	7.5	•	•	•	•	•	•	
TR30	355 x 420 x 180	21.5	300	600	5	•	•	•	•	•	•	•
				600	2.5	•	•	•	•	•	•	
TR30S	495 x 425 x 225	32	300	600	13	•	•	•	•	•	•	•
TR50	495 x 425 x 225	32	500	600	7	•	•	•	•	•	•	•
				950	3.5	•	•	•	•	•	•	

* - Power supply for 50 and 60Hz

VERSIONS : WITH SHEAVE BLOCK - WINDER - RADIO TRANSMISSION



Minifor®
fitted with wire rope winder



Minifor® TR10 - TR30
fitted with sheave block kit



radio controlled
Minifor®

Carol® MANUAL DRUM WINCH

• TR SERIES

- Manual spur gear winches.
- Multiple anchoring positions: by the base or by the side, depending on the model.

Model	WLL	Speed	Wire rope diameter (mm)	Wire rope maximum capacity (kg)	Number of layer	Effort on the handle (kg)	Lift per turn of handle (mm)	Weight (kg)
TR-150	150 kg	1	4	22	6	15	185	8
TR-300	300 kg	1	5	40	6	10	35	16
TR-500	500 kg	1	6.8	20	4	13	35	16
TR-1000	1000 kg	1	9	35	4	12	24	38
TR-2000	2000 kg	1	13	30	3	13	13	70



• TS SERIES

- Manual worm gear winches.
- Anchored using 4 or 6 anchor points at the rear of the unit, depending on the model.

Model	WLL	Speed	Wire rope diameter (mm)	Wire rope maximum capacity (kg)	Number of layer	Effort on the handle (kg)	Lift per turn of handle (mm)	Weight (kg)
TS-250*	250 kg	1	5	20	4	11	21	10
TS-500	500 kg	1	6.8	25	4	12	15	15
TS-1000	1000 kg	1 & 2	9	35	4	14	12	35
TS-1500	1500 kg	2	11.5	20	3	12	7	39
TS-2000	2000 kg	2	13	30	3	15	8	61
TS-3000	3000 kg	2	15	40	3	12	4	145

* - The 250 kg hoist has no clutch release drum



Carol® POWERED DRUM WINCH

TE-TC: the multi-purpose powered winch

• DURABLE STRENGTH

- Made of pressurised aluminium and injected polycarbonate, mass-coloured.
- The helical teeth of the gears provide significant noise reduction. Permanently greased sealed gearbox.

Model	WLL	Motor single phase : 220 V - 50 Hz 3 phases : 220-380 V - 50 Hz (kW)	Wire rope speed (m/min)	Wire rope capacity (m)	Wire rope diameter (mm)	Weight TE (kg) TC (kg)
200 kg	200 kg	0.75 single ph.	25	60	5	39 50
		0.75 3 ph.	25	60	5	39 50
300 kg	300 kg	0.75 single ph.	20	60	5	39 50
		0.75 3 ph.	20	60	5	39 50
500 kg	500 kg	1.5 single ph.	12	85	6,8	85 95
		0.55 3 ph.	5	85	6,8	85 95
		1.1 3 ph.	9	85	6,8	85 95
		1.5 3 ph.	12	85	6,8	85 95
		2.2 3 ph.	18	85	6,8	85 95
		3 3 ph.	23	85	6,8	85 95
800 kg	800 kg	1.1 3 ph.	5	60	8	90 100
		2.2 3 ph.	10	60	8	90 100
		2.2 3 ph.	13	60	8	90 100
		3 3 ph.	17	60	8	90 100

- Speed 1500 rpm. Starting by condenser - Class F, IP 55 protection
 - Electromagnetic brake, 24Vdc - Welded steel drum
 - Low voltage (24 Volts) remote control with emergency stop
 - Optional equipment on request



The ideal solution for your materials lifting requirements

• ALTOTIR 100

Compact, lightweight and reliable. It can be installed anywhere thanks to its quick attachment system. The length of its jib crane (option 1.5 m) enables you to lift bulky materials.

• ALTOTIR 150 & ALTOTIR 200

Specially designed for professional use on building sites and in confined spaces. The altotir 150 is supplied with two fixing brackets on struts. The altotir 200 must be mounted on the supporting jib crane which is sold separately.

• ALTOTIR 300

This has been designed to provide maximum reliability and safety. Its lifting power and ability to be mounted on a stand make it suitable for a wide range of possible applications.

Option : A choice of fixings according to your application :

- ❖ Stand for Altotir 300
- ❖ Internal strut with height adjustment from 2 to 3.30 m
- ❖ Side window strut
- ❖ Fixings for scaffolding
- ❖ Containers for counterweights



Altotir® 150 & Altotir® 200



Altotir® 100



Altotir® 300

Model	WLL	Lifting speed (m/min)	Electric motor power (kW/V)	Wire rope diameter (mm)	Wire rope length (m)	Maximum working height (m)	Weight (kg)	Packed dimensions (LxWxH) (mm)
Altotir 100	100 kg	20	0.3/230	3	26	26	18	400 x 330 x 370
Altotir 150	150 kg	25	0.45/230	5	26	26	39	820 x 350 x 500
Altotir 200	200 kg	25	0.7/230	5	26	26	42	820 x 350 x 500
Altotir 300	300 kg	25	0.88/230	5	26	26	48	820 x 350 x 500

Sodenic® JIB CRANE FOR BUILDING MATERIALS

Product only available on inquiry

Specially designed for work on inclines: water-proofing, roofing, masonry, metalwork, plumbing, joinery, etc

• TILTING BOOM, GALVANISED STRUCTURE, PIVOTING JIB

The sodenic crane can be used for any work which requires the installation of a safe, fast lifting device.

- Three motors available: electric, petrol and diesel.



tralift



Tralift® TE ELECTRIC HOIST

- Adjustable upper and lower electrical limit switches.
- Extra low voltage control using Schneider group components.
- Emergency stop button on pendant control station.
- Control cable with plug-in connector.
- Friction load limiter acting as a mechanical safety limit switch.
- Lifting chain to DIN 5684, grade 80 galvanised.
- Multi-sized chain storage buckets.
- IP54 protection - Class F motor insulation.
- Supply voltage 230 or 400 V - 3-phase - 50 or 60 Hz.
- FEM group 1 Am ISO M4.

Model	WLL	Number of falls	Load chain Dia. x pitch (mm)	Lifting speed (m/min)	Hoisting motor power (kW)	Hoist weight lift 3 m (kg)	Hoist headroom (mm)	Trolley speed (m/min)	Trolley motor power (kW)	Hoist/trolley weight (kg)	Beam adjustment mini/max (mm)	Mini curve radius (mm)
TE125	125 kg	1	4 x 12	10 10/3.3	0,3 0.3/0.13	25	330	Single speed	-	33	-	900
TE250	250 kg	1	5 x 15	8 8/2.7	0,4 0.4/0.13	31	340	5 or 10	-	39	-	900
TE500	500 kg	2	5 x 15	4 4/1.3	0,4 0.4/0.13	33	430	20	0.18	41	48	900
TE500	500 kg	1	6.3 x 19	8 8/2.7	0,9 0.9/0.13	38	400	dual speed	-	46	53	900
TE1000	1000 kg	2	6.3 x 19	4 4/1.3	0,9 0.9/0.13	43	480	9 and 3 or	0.18/0.6	53	58	1000
TE1000	1000 kg	1	8 x 24	6,3 6.3/1.9	1,6 1.6/0.55	56	490	19 and 6	-	66	71	1000
TE2000	2000 kg	2	8 x 24	3.15 3.15/0.8	1,6 1.6/0.55	64	580	-	-	82	86 ⁽⁹⁾	1500

• Also available in pneumatic version : TRALIFT TR from 125 to 6000 kg

Tralift® TK ELECTRIC HOIST

• COMPREHENSIVE RANGE OF ELECTRIC CHAIN HOISTS

- WLL 250 kg to 2000 kg in single phase model
- WLL 1600 kg to 5000 kg in 3-phase model
- The Tralift TK range is also available for theatre and showbiz configuration (upside down hoist, black, with multi-hoist remote control system)

Model	WLL	Number of falls	Lifting speed (m/min)	Load chain Dia. x pitch (mm)	Lifting motor power (kW)	Hoist weight lift (kg)	Hoist headroom (mm)	Trolley speed (m/min)	Trolley motor power (kW)	Hoist/trolley weight (kg)	Beam adjustment** min./max. (mm)	Min. curve radius** (mm)
TK 2M	250	1	5	5 x 15	0.4	23	403	10	0.18	32	42	1.5
TK 5M	500	2	2.5	5 x 15	0.4	25	403	or	0.18	34	44	1.5
TK 10M	1000	1	6	7 x 21	1.1	50	467	20	0.18	61	69	2
TK 20M	2000	2	3	7 x 21	1.1	60	593	20	0.18	78	83	2.5

Tralift TK single phase range
 * - The weight includes operating chain (loop 3 m)
 ** - With electric drive trolley - for hand operated trolley (refer to the corso trolley leaflet)



Model	WLL	Number of falls	Lifting speed (m/min)	Load chain Dia. x pitch (mm)	Lifting motor power (kW)	Hoist weight lift (kg)	Hoist headroom (mm)	Trolley speed (m/min)	Trolley motor power (kW)	Hoist/trolley weight (kg)	Beam adjustment** min./max. (mm)	Min. curve radius** (mm)
TK 16	1600	1	6	8 x 24	1.85	68	579	Single speed	0.18	86	91	2500
TK 16	1600	1	5/1.25	8 x 24	1.7/0.42	78	579	10 or 20	0.18	94	99	2500
TK 20	2000	1	5	10 x 28	1.85	71	574	20	0.18	89	94	2500
TK 20	2000	1	5/1.25	10 x 28	1.7/0.42	78	574	10 or 20	0.18	94	99	2500
TK 25	2500	1	4	10 x 28	1.85	71	574	20	0.18	103	109	2500
TK 25	2500	2	3/0.75	8 x 24	1.5	78	651	20	0.18	108	114	2500
TK 32	3200	2	3	8 x 24	1.85	78	651	dual speed	0.44/0.11	108	114	2500
TK 32	3200	2	2.5/0.6	8 x 24	1.7/0.42	78	651	20 and 5	0.44/0.11	108	114	2500
TK 40	4000	2	2.5	10 x 28	1.85	88	732	20 and 5	0.66/0.17	137	143	2500
TK 40	4000	2	2.5/0.6	10 x 28	1.7/0.42	88	732	20 and 5	0.66/0.17	137	143	2500
TK 50	5000	2	2	10 x 28	1.85	88	732	20 and 5	0.66/0.17	137	143	2500

Tralift TK 3 phase range
 * - The weight includes operating chain (loop 3 m)
 ** - With electric drive trolley - for hand operated trolley (refer to the corso trolley leaflet)



Tralift® RANGE OF MANUAL CAIN HOISTS

• COMPREHENSIVE RANGE

- WLL 0.5 to 20 tonnes
- Swivel 360° hooks.
- Automatic double pawl brake.
- Tested to 150% of working load limit.
- Self-lubricating anti-corrosion chain to NFE 26-010 (Salt spray resistance > 800 hours, and at temperatures of up to 280°).
- Optional load limiting device.

Model	WLL	Number of falls	effort on hand chain (daN / kg)	Load chain (mm)	Hand chain (mm)	Hoist weight for 3 m lgt (kg)	Chain weight** extra per m (kg)
500	500 kg	1	21	5 x 15	5 x 24	9	1.5
1000	1000 kg	1	34	6 x 18	5 x 24	12	1.7
1500	1500 kg	1	38	8 x 24	5 x 24	19	2,3
2000	2000 kg	2	36	6 x 18	5 x 24	18	2.5
2000	2000 kg	1	40	8 x 24	5 x 24	20	2.3
3000	3000 kg	2	42	8 x 24	5 x 24	28	3.7
5000	5000 kg	2	45	10 x 30	5 x 24	41	5.3
10 000	10.000 kg	4	47	10 x 30	5 x 24	79	9.7
20 000*	20.000 kg	8	50	10 x 30	5 x 24	178	19.4

* - model on request

** - Weight of load chain and hand chain per meter



Bravo® RANGE OF LEVER HOISTS

• MULTI-PURPOSE, ROBUST, SAFE ...

- WLL 0.25 to 6 tonnes.
- High-tensile alloy steel lever hoist. Ideal for building and civil engineering and industry.
- Can be used in any position, both on building sites and in workshops.
- Ideal for pulling, lifting, positioning, adjusting.
- The hoist rotates freely round 360° on swivel hooks with overload opening indicators.
- Selection of neutral position not possible once load taken up, with automatic engagement of the brake.

Model	WLL	Number of strands	Standard lifting height* (m)	Maximum force on lever (daN/kg)	Weight (kg)	Chain size** (mm)	Dimensions in millimeters						
							A	B	C	D	E	F	H min.
250	250 kg	1	1.5	26	2	4 x 12	91	70	71	157	21	28	233
500	500 kg	1	1.5	34	5	5 x 15	110	80	122	228	23	35	305
750	750 kg	1	1.5	20	7	6 x 18	139	84	153	288	26	37	303
1500	1500 kg	1	1.5	21	11	7 x 21	174	108	160	418	31	45	370
3000	3000 kg	1	1.5	33	20	10 x 30	200	115	185	418	39	55	500
6000	6000 kg	2	1.5	34	30	10 x 30	200	115	230	418	45	65	630

* - Up to 6 m as an option - ** - ISO grade 80



Corso® RANGE OF BEAM CLAMPS & TROLLEYS

- Beam clamps for hoists: WLL 1 to 10 tonnes
- Travelling trolleys: WLL 0.5 to 5 tonnes
 - Large side plates and easy adjustment to fit a wide range of beams.
 - Steel wheels with ball bearings.
 - Double threaded bar with closed anchor point.
 - Bar prevented from rotating after adjustment by Allen screw.
 - Folded steel end stops acting as anti-derailing devices, and anti-tilt devices welded onto side plates.



Beam clamp



Push trolley



Chain-operated trolley



Electrically-operated trolley

Model	WLL	Recommended "Trail" (width) (mm)	Weight (kg)
LT-1B	1000 kg	75 à 235	4,8
LT-2B	2000 kg	75 à 240	5,6
LT-3B	3000 kg	95 à 335	11
LT-5B	5000 kg	95 à 330	12,3
LT-10B	10 000 kg	90 à 350	21

Model	CMU	Dimensions		Mini Radius curve (mm)	Nominal effort on chain (N)	Weight of push trolley (kg)	Weight of chain operated trolley (kg)
		traverse bar 1 (mm)	traverse bar 2 (mm)				
500	500 kg	50 - 220	220 - 300	900	*	8.5	-
1000	1000 kg	58 - 220	220 - 300	1000	55	10.5	19
2000	2000 kg	66 - 220	220 - 300	1200	100	18	22.5
3000	3000 kg	74 - 220	220 - 300	1300	75	32	37.5
5000	5000 kg	90 - 220	220 - 300	1400	120	48.5	55

* - for 10 t and 20 t models, please ask for dimensions data

BRACKETS & OPERATING SYSTEMS



Voie monorail



Profil creux



ELECTRICAL POWER SUPPLY LINES



Flexible flat cable



Protected sheath

BLOCMAT® FALL ARRESTERS

Blocmat S 500/800/1000, SI 500/800/1000

- Capacity : 500, 800 et 1000 kg
- Capacity/Rope stroke: 8 to 25 m depending on model
- suspended version : **blocmat S**
- ground fixing version : **blocmat SI**
- Limited fall arrest (height less than 100 mm)
- Can be re-used immediately after stopping a fall.
- Simply operate a lever to reset.
- Fall arrest capacity can be tested at any time by closing the jaws manually.
- No factory reconditioning is required after stopping a falling load.



Blocmat BS 250

- Capacity 250 kg
- Capacity/Rope stroke : 15 m
- Limited fall arrest height.
- Load stopped gradually
- Lightweight
- Quick to install

RANGE OF VACUUM LIFTING DEVICES

Product only available on inquiry

• ERGONOMIC OPERATION

- 1 - Type TL with 8 vacuum pads
- 2 - Type TL for cut metal sheets
- 3 - Type TL for 180° rotation
- 4 - Type TL with 90° tilting and 180° rotation
- 5 - Type TLM for lifting metal cans or drums



topal®

Topal®

Tractel offers the **Topal range of grabs, spreaders and C-hooks**. These products are designed and manufactured in line with companies' safety and productivity requirements.

This high quality product range complies with the most stringent standards.

Pal Beam®



PBF standard fixed single beam spreader* or PBM adjustable single beam spreader, for suspension from above via a central ring, fitted with two separate compensating beams for new lifting possibilities with tilting of the beam and/or the compensating beams.

- **Lifting with compensating beams providing symmetrical or asymmetrical traction**, slanting inwards or outwards (max. angle 15°).
- **Lifting with the beam tilted at 6° from horizontal :**
 - Vertical traction with symmetrical compensating beams.
 - Slanting traction with asymmetrical compensating beams.
- **WLL 1 to 5 tonnes**
- **Length 1 to 4 m**

*Special spreaders on request



Turning over loads* frequently causes problems and significant risks. **The Pal Turn solution is ideal** for carrying out this type of operation :

- Easy to use
- Reliable and maintenance-free
- Meets the materials handling requirements of the future
- **Maximum safety for :**
 - **Users**, with no risk of the load slipping or falling
 - **Products**, causing no marks or damage
 - **Equipment**, no jolts on the lifting system.
- **Essential tool** for all industries, for operations such as :
 - Supplying machines
 - Processes
 - Packaging
 - Maintenance
- **Complies with the machinery directive 98/37/EC** concerning essential health and safety requirements.

Caractéristiques Techniques

- Capacity de **1 to 20 tonnes**
- **Fixed or adjustable space** between straps
- Length of the device **made to order**
- **Indication** of horizontal position
- **Retractable** lower hook
- **Self-contained** model (battery operated)
- **Possibility of future enhancement** during the lifetime of the device
- Length of the device: up to **6 m.**
- **Easy to adjust** by indexing
- **Remote control** with or without cable
- **Single speed or 2-speed motor**
- **Load lifted using textile or other types of straps**

* See also our specific documentation.

Plates, mechanically-welded structures



KS - Multiposition clamp for plates

Ref.	Grab mm	WLL kg
KS075	0-15	750
KS1	0-20	1000
KS2	0-25	2000
KS3	0-30	3000



NK - Automatic self-locking multiposition clamp for plates

Ref.	Grab mm	WLL kg
NK1	0-20	1500
NK1	20-40	1500
NK1	40-60	1500
NK2	0-30	3000
NK2	30-60	3000
NK2	60-90	3000
NK3	0-40	4500
NK3	40-80	4500
NK3	80-120	4500
NK5	0-50	7500
NK5	50-100	7500
NK5	100-150	7500



NX - Automatic self-locking and non-marring multiposition clamp for plates

For materials with fragile surface

Ref.	Grab mm	WLL kg
NX05	0-20	500
NXR05	0-100	500
NXR05	20-120	500
NXR05	40-140	500
NX1,5	0-30	1500

R = adjustable model



TLH/TLR - Clamps for horizontal plates

Use in pair(s) - TLR adjustable model

Ref.	Grab mm	WLL kg
TLH1	0-60	1000
TLH1	0-120	1000
TLH2	0-60	2000
TLH2	0-120	2000
TLH3	0-60	3000
TLH3	0-150	3000
TLH4	0-60	4000
TLH4	0-150	4000
TLH5	0-60	5000
TLH5	0-150	5000
TLH10	0-60	10000
TLH10	0-150	10000
TLR2	0-300	2000
TLR3	0-300	3000
TLR5	0-300	5000
TLR10	0-300	10000
TLR25	0-300	25000



QR - Double hooks for lifting horizontal plates

Use in pair(s)

Ref.	Opening mm	WLL kg
QR3	0-300	3000
QR6	0-300	6000
QR12	0-300	12000



TLC - Universal clamps for horizontal plates

Use in pair(s)

Ref.	Grab mm	WLL kg
TLC1	0-150	1000
TLC2,5	0-150	2500
TLC4	0-150	4000
TLC6	0-150	6000



QS - Simple hook for lifting horizontal plates

Use in pair(s)

Ref.	Opening mm	WLL kg
QS1,5	0-300	1500
QS3	0-300	3000
QS6	0-300	6000



LT - Lever for separating plates

Ref.	Length mm
LT1-830	1290



QX - Double hooks for separating and lifting horizontal plates

Use in pair(s)

Ref.	Opening mm	WLL kg
QX10-120	0-120	10000
QX10-210	0-210	10000

Girders, bars, pipes, blocks, rails



PR - Rails clamp

Ref.	Grab mm	WLL/clamp kg
PR1	20-40	1000
PR2	40-80	2000
PR2A	40-80	2000

A = automatic



PL - Girders clamp

Ref.	Grab mm	WLL/clamp kg
PL1	95-200	1000
PL2	120-300	2000
PL3	180-450	3000
PL4	120-300	4000



GP - Beam clamp with clamping

Provides a fixed or temporary suspension point

Ref.	Grab mm	WLL kg
GP1	60-180	1000
GP2	60-200	2000
GP3	60-300	3000
GP5	100-390	5000
GP10	100-390	10000



PB - Clamp for lifting loads with parallel sides

Ref.	Grab mm	WLL kg
PB05	0-100	500
PB05	100-250	500
PB05	200-500	500
PB1	0-200	1000
PB1	200-500	1000
PB1	500-800	1000
PB1	700-1000	1000



KP - Semi-automatic clamp for lifting girders

For lifting a girder by the flange while maintaining the web vertical.

Ref.	Grab mm	WLL kg
KP1	0-20	1500
KP2	0-30	3000



ZAC - Clamp for lifting and turning loads with parallel sides.

Ref.	Grab mm	WLL kg
ZAC 1,5	60-250	1500
ZAC 1,5	250-390	1500
ZAC 1,5	390-650	1500
ZAC 1,5	600-1000	1500
ZAC 1,5	700-1250	1500



RT - Round bars and pipes clamps

Ref.	Grab mm	WLL/clamp kg
RT05	50-100	500
RT1	100-200	1000
RT2	200-350	2000
RT3	250-450	3000



PP - Adjustable clamp for lifting loads with parallel sides

Ref.	Grab mm	WLL kg
PP1	200-1000	1000

Civil engineering and building



RB- Manholes hooks
Automatic adjustment - Use only by 3

Ref.	Grab mm	WLL kg
RB1,5	40-110	1500



SCX- Lifting beam for cone-shaped concrete manholes

Ref.	Ø	Grab mm	WLL kg
SCX07		700	700



TB- Pipes hooks
Use in pair - Large bearing surfaces

Ref.	Grab mm	WLL kg
TB1	0-150	1000
TB2	0-200	2000
TB3	0-250	3000



F- Pipes hooks
Use in pair

Ref.	Grab mm	WLL kg
F2	0-60	2000
F5	0-75	5000
F10	0-100	10000
F15	0-100	15000



BX- Kerbstone clamp

Ref.	Grab mm	WLL kg
BX01	1000	100
BX01D*	1000	100
BX02	120-300	200

* Modèle avec guideons



TI - Clamp for horizontal lifting and/or laying in trenches of pipes
S : semi-automatic model
A : automatic model

Ref.	Grab mm	WLL kg
TIS05	230-400	500
TIA05	230-400	500
TIS05	380-650	500
TIA05	380-650	500
TIS1	450-900	1000
TIA1	450-900	1000

Load positioners



TC- Automatic load positioner for rope sling

Ref.	Ø Cable mm	WLL kg	45°
TC2	11	2000	
TC3	13	3000	
TC5	18	5000	



TE- Load positioner with automatic locking for chain sling

Ref.	dia. chain mm	WLL à 120° kg
TE1,6	7	1600
TE3	10	3000
TE4,5	13	4500

TF- Automatic load positioner for double rope sling or strop



Ref.	dia. cable mm	WLL 45° kg
TF1,5	9	1500
TF3	13,2	3000
TF5	16,8	5000
TF10	23	10000
TF20	32	20000

Drums clamps



HF- Semi-automatic drums clamp for horizontal lifting

Ref.	Drum length mm	WLL kg
HF05	440-920	500



VFR- Semi-automatic drums clamp for vertical lifting

Ref.	Ø Drum mm	WLL kg
VFR05-5	400-500	500
VFR05-6	500-600	500



VLF- Drums clamp for vertical lifting

Ref.	Ø Drum mm	WLL kg
VLF05	600	500
VLF08	600	800



VFA- Automatic drums clamp for vertical lifting

Ref.	Ø Fût mm	CMU kg
VFA025	600	300



VFB- Drums clamp for lifting and revolving

Ref.	Ø Drum mm	WLL kg
VFB025S	600	300
VFB025A	600	300
VFB025AR	600	300

S = modèle le semi-automatique
A = modèle le automatique
AR = modèle le automatique à réducteur

Various loads



TO - Universal drum cable hook
Use in pair

Ref.	WLL kg
TO13	13000

Universal model



CC- Containers lugs
Use in fours

Ref.	WLL/lug kg
CCB/CCV7,5	7500
CCB/CCV12,5	12500

Modèle CCB pour traction en biais
Modèle CCV pour traction verticale



CR- C-hook for lifting and turning coils

Ref.	Coil width mm	WLL kg
CR05	50-120	500
CR1	70-140	1000
CR2	100-200	2000
CR2	160-330	2000

Other dimensions on request



PC- Automatic safety fork lift truck

Ref.	Tines width mm	WLL kg
PC1,5	120	1500
PC3	170	3000

dynafor®

Dynafor® ELECTRONIC DYNAMOMETERS

• DYNAMOMETER AND LOAD INDICATOR WITH DIGITAL DISPLAY

- Complete range from 10 kg to 250 tonnes
- EMC compliance : **Electro-magnetic Compatibility Directive 89/336/EEC**. Emission of radiated interference, standard **EN 55022** applicable to data processing equipment. Immunity of devices in industrial environments, standard **EN 50082.2**.

Model	WLL	Accuracy (+ / - kg)	Minimum display (kg)	Test Load (t)	Maximum display (kg/t*)	Height of digit(mm)	Weight (kg)	Dimensions L x l x w (mm)
LLX - 0.25	0.25 t	0.5	0.1	0.5	250.0	18	1.1	190 x 83 x 56
LLX - 0.5	0.50 t	1	0.2	1	500.0	18	1.1	190 x 83 x 56
LLX - 1.25	1.25 t	2.5	0.5	2.5	1250.0	18	1.1	190 x 83 x 56
LLX - 2.5	2.5 t	5	1	5	2500	18	1.4	214 x 83 x 56
LLX - 5	5 t	10	2	10	5000	18	1.9	226 x 90 x 56
LLX - 12.5	12.5 t	25	5	25	12500	25	3.8	310 x 110 x 58
LLX - 25	25 t	50	10	50	25000	25	6.6	360 x 134 x 68
LLX - 50	50 t	100	20	85	50000	25	15.1	440 x 164 x 98
LLX - 100	100 t	200	50	145	100.00*	25	46.0	660 x 260 x 118
LLX - 250	250 t	500	100	333	250.00*	44	215	905 x 424 x 248

Model	WLL	Accuracy (0.2%) (+ / - kg)	Minimum display (kg)	Test load (t)	Maximum display (kg)	Height of digits (mm)	Weight (kg)	Dimensions L x l x w (mm)
MWX - 0.25	0.25 t	0.5	0.1	0.5	250.0	25	4.7	440 x 138 x 160
MWX - 0.5	0.50 t	1	0.2	1	500.0	25	4.7	440 x 138 x 160
MWX - 1.25	1.25 t	2.5	0.5	2.5	1250.0	25	4.7	440 x 138 x 160
MWX - 2.5	2.5 t	5	1	5	2500	44	7	440 x 200 x 177
MWX - 5	5 t	10	2	10	5000	44	8.5	520 x 200 x 177
MWX - 12.5	12.5 t	25	5	25	12500	44	21	700 x 200 x 205



LLX

LLX - TR radio transmission

MWX infrared control

MWX - LED IR diode électro-luminescente

MWX compression

Portable printer

IPC interface

Wall-mounted remote display

Wall-mounted remote display

Data console

Mains power supply

Hook Shackle



Dynafor® LLZ RANGE

• TRACTION DYNAMOMETER

- Range from 250 kg to 20 tonnes
- Quick, accurate digital display, 18 mm figures
- Lightweight, compact, robust: IP 65, -10° to +40° C
- Long battery life: 850 hours
- Overload indicator
- Overload coefficient 2:1
- Tare across the whole measuring range
- Display in units of weight or force

Model	WLL	Accuracy (0.8% (+/- kg))	Minimum display (kg)	Weight (kg)	Dimensions L x l x w (mm)
LLZ - 0.25	0.25 t	2	0.5	1.1	220 x 90 x 42
LLZ - 0.5	0.50 t	4	1	1.1	220 x 90 x 42
LLZ - 1	1 t	8	2	1.1	220 x 90 x 42
LLZ - 2	2 t	15	5	1.3	233 x 90 x 48
LLZ - 3.2	3.2 t	25	5	1.5	243 x 97 x 48
LLZ - 6.4	6.4 t	50	10	2.3	275 x 115 x 48
LLZ - 10	10 t	80	20	4	325 x 110 x 62
LLZ - 20	20 t	150	5050	7	371 x 134 x 72



Handifor® RANGE OF MINI-WEIGHERS 20 - 50 - 100 - 200 KG



• MEASUREMENT AND INDICATION OF FORCES OR LOADS

- Quick, accurate digital display, 13.5 mm LCD display
- Lightweight, compact and ergonomic design
- Battery life of more than 100 hours

Fits in your pocket. You will find your Handifor useful for :

- Checking loads wherever you are.
- Check weighing packages (dispatch, parcel services, etc).
- Checking fire extinguishers.
- When hunting and fishing.
- Measuring materials in laboratories.
- Measuring in industry, maintenance and repair workshops, etc..

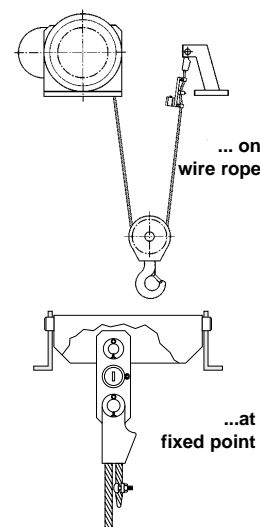


Dynasafe® LOAD LIMITERS ON WIRE ROPES & FIXED POINTS

• HF 32 MECHANICAL SENSOR, QUICK AND SIMPLE TO INSTALL

Detects an effort threshold on lifting equipment via a wire rope with a fixed anchor point. If the threshold is crossed a signal is generated, which can be used as required, e.g. :

- Limitation of the load during lifting,
- Limitation of the speed according to the load being moved,
- Limitation of the pulling effort.



• MECHANICAL AND ELECTRONIC SENSORS :

FROM SIMPLE BRINGING INTO COMPLIANCE TO THE MOST COMPREHENSIVE MANAGEMENT TOOL

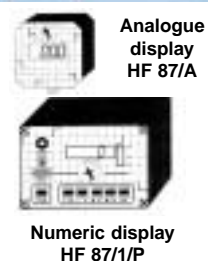
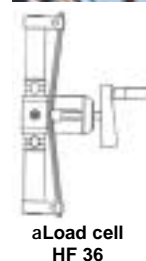
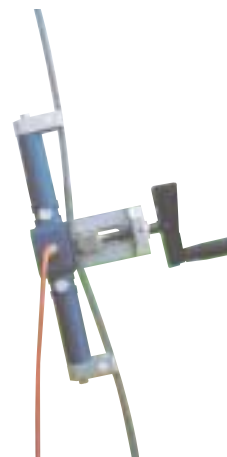
- Solutions for standard configurations of overhead cranes,
- On cable or fixed point (see diagram of mounting principle).

DYNAROPE® TENSIO METER HF 36 SERIES

• FOR MEASURING EFFORT IN PRE-TENSIONED WIRE ROPES

- Guy ropes for aerials, posts, masts, overhead power line supports.
- All textile or metal cables which cannot be dismantled and whose tension must be known or checked.
- Fits directly onto the tensioned wire rope and is operated by simply turning a handle.

Model	Wirerope diameter (mm)	Capacity (daN)	Unit length (mm)	Weight (kg)
HF 36/1	4 à 13	5000	370	2
HF 36/2	10 à 22	20000	500	4
HF 36/S	on request			



pioneer/hydrofor

Pioneer® MANUAL PALLET TRUCK

- **ROBUST, SAFE AND EASY TO USE**
 - Polyurethane wheels and rollers for easy movement
 - Permanently greased bearings and high efficiency pump unit

Model	WLL	Mini height of lift (mm)	Maxi height of lift (mm)	Forks length (mm)	Forks width (mm)	Weight (kg)	Rollers diameter (mm)	Steering wheels diameter (mm)
Pioneer ST	2000 kg	74	190	1150	550	82	60 x 72	180 x 50
Pioneer SP	2000 kg	84	200	1150	550	84.5	70 x 80	180 x 50
Pioneer SP	3000 kg	84	200	1150	550	87.5	70 x 80	180 x 50
Quick-lift	2000 kg	90	800	1150	540	90	50 x 80	180 x 50

Pioneer® Highlift

- **MULTI-PURPOSE PALLET TRUCK**
 - Manual transfer and lifting
 - For transport (load in lower position) and lifting (800 mm)



Hydrofor® HYDRAULIC JACKS

- **HYDRAULIC JACKS WITH LIFTING TOE, 5 TO 20 TONNES**
 - Patented design of the hydraulic system, no draining of the pump, even when horizontal
 - Moulded single block body

Model	WLL	Load on lever (Nm)	Weight (kg)	Travel (mm)	Height of lift		Dimensions (mm)
					Tête (mm)	Patte (mm)	
Hydrofor	5 t	450	18	205	360	25	360 - 540 - 130 x 210
Hydrofor	10 t	500	25	240	417	25	417 - 540 - 130 x 210
Hydrofor	20 t	450	52	220	440	40	440 - 850 - 180 x 275



TOP® RACK-AND-PINION JACKS

- **BT SERIES, AVAILABLE IN 5 MODELS, CAPACITY 2.5 TO 20 TONNES**
 - Shaft made of high quality steel sheet.
 - Gears, pinions and racks made of heat-treated steel.

Model	WLL	Ratio	Lift (mm)	Effort on lever (kg)	Weight (kg)
BT 2,5	2.5 t	2 : 1	345	38	14
BT 5	5 t	2 : 1	360	55	22
BT 10	10 t	2 : 1	320	54	38
BT 16	16 t	3 : 1	320	73	65
BT 20	20 t	3 : 1	300	80	90



Hydrofor® HYDRAULIC PRESSES

- Range of hydraulic presses ranging from the 10 and 15 tonne bench press, and the 15 and 30 tonne workshop presses, to the 50 to 100 tonnes heavy duty presses.
- fabricated frame, supplied with centring V
- Multi-position :
 - mechanical hoist for raising the platen,
 - cylinder mounted on rollers to enable sideways movements and provide the maximum options for applications.



Hydrofor® FOLDING OR DISMANTLEABLE CRANES

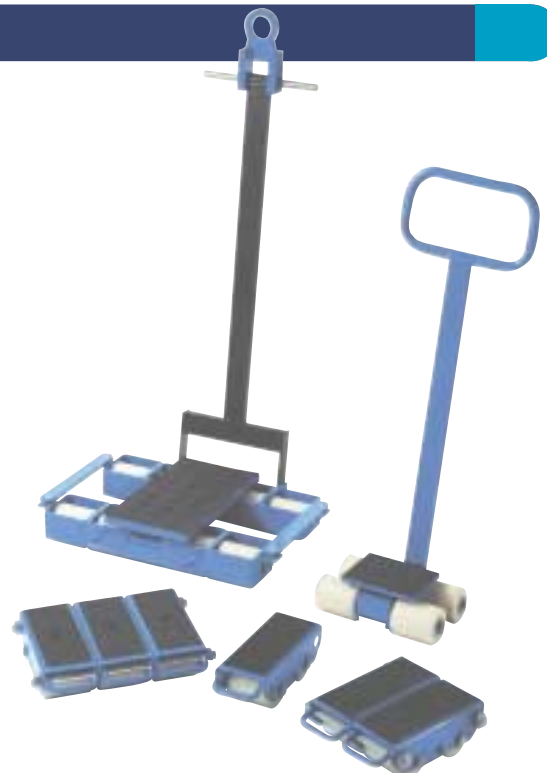
- **DISMANTLEABLE, FROM 1000 TO 3000 KG**
- Fitted with silent, non-rusting polyamide wheels which ensure ease of movement and prevent damage to garage floors.
- Extending lifting jib, pivoting wheels and rotating hook with safety catch for easy access to the load and easy operation.
- **FOLDING, FROM 500 TO 2000 KG**
- Simple to fold and easy to transport on the fixed auxiliary wheels.



Pakrol® SHIFTING SKATES & HANDLES

- **A MODULAR RANGE FOR MOVING GUIDING LOADS**
- Handles (plate on ball-bearing ring)
- Roller skates (connected via a linking bar to spread the load)
- Nylon rollers mounted on roller bearings

Model	WLL	Load bearing area (cm ²)	Height (kg)	Dimensions (mm)
Skates with top plate	2 t	234	4.6	190 - 110
	4 t	470	10.6	300 - 220
	6 t	700	15.6	410 - 330
Skates with handle	4 t	270	13.7	
	6 t	920	48.8	
	12 t	920	59.8	



TRACTEL GROUP

Lifting materials
handling
measurement and
control

Height safety
equipment

Temporary access
equipment

Permanent access
equipment

Tractel products
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Distributor :

TRACTEL S.A.S. :
Saint-Hilaire-sous-Romilly
B.P. 38 - F-10102 Romilly-sur-Seine Cedex
Tél. +33 3 25 21 07 00
Fax. +33 3 25 21 07 11
ISO 9001



www.tractel.com - E-mail : info@tractel.com

Crédit photos : Tractel - O. Touron - Gaffard

Export department :
Tel. (352) 43 42 42-1
Fax (352) 43 42 42-200

Paris region offices :
Tel. +33 1 48 58 91 32
Fax +33 48 58 19 95

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