Lifting - Materials Handling Measurement & Control

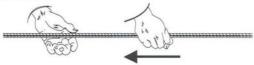




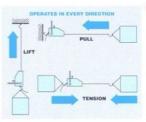


THE Tirfor® PRINCIPLE

- 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.

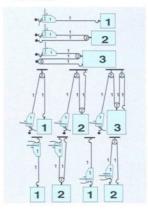


Safe and reliable

- 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.

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.



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 SERIES

 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.

Mode,		Machine	Wire rope	Special Tirtor	Wire rope	Dimensions	Dimensions
	WLL	weight (kg)	weight (20 m) (kg)	wire rope o (mm)	breaking strain (kg)	of the machine Lx1xw (mm)	of the handle opened closed (mm)
T-508D	acc kg	6.6	6.1	8.3	4000	420 x 250 x 59	690 - 400
T-516D	1600 kg	13.5	13.1	11.5	8000	530 x 315 x 127	1150 - 650
T-532D	2200 kg	24	26.6	16.3	16000	620 x 355 x 130	1150 - 650



Tirfor® TU SERIES

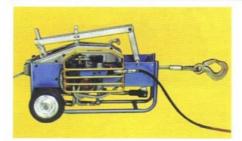
 For lifting, pulling and positioning heavy loads, the models in the TIRFOR TU range are unrivalled in terms of durability and sturdiness.

They are also approved for lifting personnel (see national regulations).

Mode,	WLL	Machine weight (kg)	Wire rope weight (20 m) (kg)	Special Tirtor wire rope o (mm)	Wire rope breaking strain (kg)	Dimensions of the machine L x I 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	1800 NO	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



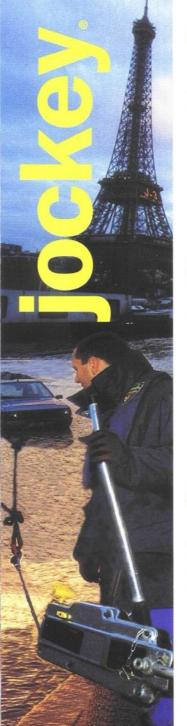
HYDRAULIC & PNEUMATIC Tirfor®



- * 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.



Jockev[®] J3

· Universal lifting and pulling device, capacity: 300 kg.

 Ultra-lightweight and robust, easy to operate and maintain, can be used in numerous applications.





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 WLL of the device.





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.

\$ Oder	WLL	Weight of unit (kg)	e Cable or e wire to be pulled (mm)	Lever stroke (mm)	Frog model
F2	400 kg	4	up to 8	65	62
F3 & F3D	600 kg	5.2	7 - 15	75	G3
F4	Ele	6.2	14 - 18	90	G4





Maxiflex wire rope

Stoder	o Wire rope (mm)	Unit model to equip	
1	4.7	Jockey J3	Maxiflex wire ropes
к	6.5	Jockey J5	are fitted with a safety hook secured by a ferrule
C8	8.3	T-508D & TU-8	nook secured by a retrute
C12	11.5	T-516D & TU-16	
C18	16.3	T-532D & TU-32	



RANGE OF ACCESSORIES

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 REELER

- WIND, UNWIND AND STORE ALL YOUR WIRE ROPES
 EASILY AND WITHOUT RESTRICTIONS ...
 - · The JML reeler 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.







- The TIRAK is a powered hoist through which the wire 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.





K™ - 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 alians 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

The hoist moves with the load.

Further information on request



tirak® X SERIES

Moder	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 i x w (mm)
x-301 x-300 x-302		9 9 18	M T T	0.5 0.5 0.9	8.3 8.3 8.3	29 27 27	430 x 250 x 213 400 x 250 x 213 400 x 250 x 213
x-501 x-500 x-502 x-506 x-503	500 kg	9 9 18 4.5/18 9/18	M T T T	0.9 0.9 1.8 0.45/1.8 0.9/1.8	8.3 8.3 8.3 8.3	49 40 43 47 47	546 x 297 x 256 585 x 297 x 250 585 x 297 x 250 500 x 297 x 250 500 x 297 x 250
x-800 x-802 x-806 x-803		9 18 4.5/18 9/18	T T T	1.5 3 0.75/3.0 1.75	8.3 8.3 8.3 8.3	45 49 49 49	541 x 297 x 256 535 x 297 x 256 510 x 297 x 256 510 x 297 x 256
x-1020 x-1025 x-1026 x-1023	1000 kg	9 18 4.5/18 9/18	T T T	1.9 0.9/1.9 0.9/3.8 1.9/3.8	9,5 9.5 9.5 9.5	45 55 71 56	
x-3050 x-3052	3000 kg	6 12	T	3.8 7.5	14 14	105 117	650 x 400 x 360 660 x 400 x 360



tirak™ L series

T-1020P T-1022P T-1025 T-1026	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 Lxlxw (mm)
-1020P		9	T	1.95	9.5	72	*
-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



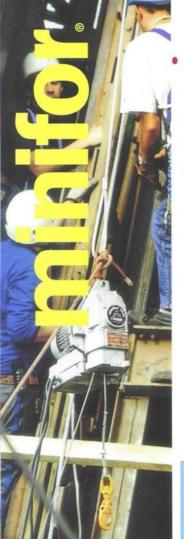


tirak™ MOBILE WINCH WITH TIRAK

1-								
Moder	WIL	Ulting 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		9 18	0,5	8 8	80 80	60 60		1
in frame		4.5 9 4.5/9 4.5/18 9/18	0,5 0,9 0.5/0.9 0.5/1.8 0.9/1.8	8 8 8	80 80 80 80	75 75 85 85 85	500 500 500 500 500	115 115 125 125 125
With rope reeling drum		4.5 9 4.5/9 4.5/18 9/18	0.8 1.6 0.8/1.6 0.8/1.6 1.75/3.5	8 8 8 8	80 80 80 80	80 80 85 105 85	500 500 500 500 500	120 120 125 145 125
		4.5 9 4.5/9 4.5/18 9/18	0,9 1,8 0.9/1.8 0.9/3.8 1.9/3.8	9 9 9 9	70 70 70 70 70	85 80 90 105 90	400 400 400 400 400	125 120 130 145 130
		6	3.8 7.5	14	110 110	200 225	500 500	550 550



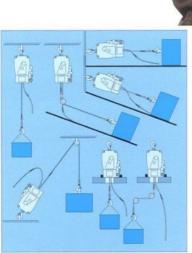




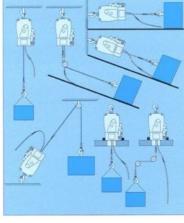
Minifor®

A comprehensive range of universal, highperformance portable electric hoists, for work at any height.

- · WLL: 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.

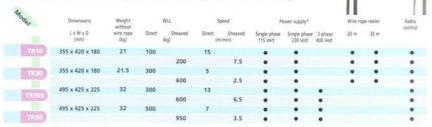
ERGONOMICS

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

STANDARD

- · Conforms to : Machine 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 with thermal production.
 - Radio control: 433 MHz (418 MHz at 115 volts).
 - Wire rope ø 6.5 mm; breaking load 2500 daN; weight per metre: 0.170 kg.



^{* -} Power supply for 50 and 60Hz

VERSIONS: WITH SHEAVE BLOCK - REELER - RADIO TRANSMISSION

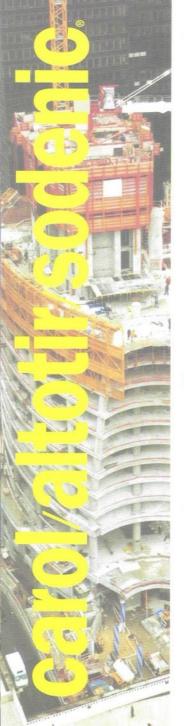




Minifor® TR10 - TR30 fitted with sheave block kit







Carol® MANUAL DRUM WINCH

· TR SERIES

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

Total Property of	WIL	Spred	Wire rope dameter (mm)	Wire rope muslemen capacity (kg)	Number of layer	Effort on the handle digi	per turn of handle (man)	Weight (kg)
TR-150	TELL D	4	4	22	6	15	185	
TR-300		Y	5	40	- 6	10	35	16
TR-500		1	5.8	20	4	13	35	16
TR-1005		1	9	35	4	12	24	38
TR-2000		1	13	30	3	12	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.

dient.	WL.	Speed	Wirk rape diameter	Were repair management subjectly	Number of layer	(fort on the handle	Lift per turn of handle	Weight
			land.	Ngl		regi	(max)	(Hg
T5-250*	1117	7	5	20	4	11	21	10
TS-500		1	6.8	25	4	12	15	15
TS-1000		182	9	35	4	14	12	35
TS-1500		2	11.5	20	3	12	7	39
TS-2000		2	13	30	3	15		61
TS-3000		2	15	40	3	12	4	145
		4 - The TOTAL						



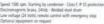
Carol® POWERED DRUM WINCH

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.

	Motor	Wire rope	Wire rope	Wire rope	W	right
WLL	single phase: 220 v - 50 Hz 3 phase: 220:380 v - 50 Hz (kW)	speed (m/min)	capacity (m)	dumeter (mm)	TE (kg)	ft (kg
#1010	1.1 single ph.	25	60	5	39	50
	1.1 3 ph.	25	60	5	39	50
10010	1.1 single ph.	20	60	5	39	50
	1.13 ph.	20	60	5	39	50
	1.5 single ph.	12	85	6,8	85	95
	0.55 3 ph.	5	85	6,8	85	95
	1.13 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
000 Es	1.1 3 ph.	5	60	8	90	10
	2.2 3 ph.	10	- 60	8	90	10
	2.2.3 ph.	13	60	8	90	10
	3 3 ph.	17	60	8	90	10







Altotir[®]

The ideal solution for your materials lifting requirements

ALTOTIR 100

Compact, lightweight and reliable. It can be installed anywhere thanks to its guick 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 iib crane which is sold separately.







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.



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

Model	WLL	Lifting speed (m/min)	Electric motor power (kW/V)	Wire rope diameter (mm)	Wire rope Jength (m)	Maximum working height (m)	Weight (kg)	Packed dimensions (Lxlxw) (mm)
Altotir 100		15	0.3/230	3	20,5	20	18	300 x 290 x 280
Altotir 150	150 kg	18	0.45/230	5	26	25	39	820 x 350 x 500
Altotir 200	200 kg	19	0.7/230	5	31	30	45	820 x 350 x 500
Altotir 300	300 kg	19	0.88/230	5	26	25	50	820 x 440 x 350





odenic® JIB CRANE FOR BUILDING MATERIALS

Product only available on inquiry

Specially designed for work on inclines: waterproofing, 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.





- · Adjustable upper and lower electrical limit switches.
- Extra low voltage control using Schneider group components.
- · Emergency stop button on pendant control box.
- 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 bags and 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.

		Number of	Chair	Lifting	norsing	Most weight	headroom	Trolley speed	Trolley	MOR	C'trolley w	eignt	Stat.	Mire curve	
		talls	Dia. x pitoti (mm)	(m/mm)	power (kW)	Meight Stt.3 m (kg)	(mm)	(minute)	power (val)	antige (kg)	minar"	eencys Nai	meriman (mm)	(mm)	
E125	1251 kg	1	4 x 12	10/3.3	0.3/0.13	25	330	Single	50	33				900	
E250	250 kg	1	5 x 15	8 8/2,7	0,4	31	340	speed		39			50 to 220	900	
1300	307.10	2	5 x 15	4/1.3	0.4/0.13	33	430	5 or 10	0.18	41	48	50		900	
F500	Storag	1	6.3 x 19	8/2.7	0.9	38	400	20	0.25	46	53	55	220 à 300°	900	
1000	1500 10	2	6.3 x 19	4/1.3	0.9	43	480	dual speed		53	SI	60	58 to 220	1000	
1000	some kg	+	8 x 24	6,3/1.9	1,6	56	490	9 and 3	0.18/0.6	66	71	73	220 to 300°	1000	
2000		2	8 x 24	3.15	1,6	64	580			112	86"	24	66 to 220 ou	1500	

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

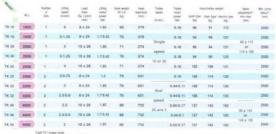
Tralift® TK ELECTRIC HOIST

- * 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)

1		terior	Wing speed	Sant char	Lifting	Appliedgy.	HAM .	Trakey	Tuley		nes today w	wight	Beam	Mr. upw
	MI.	Me	(84,640)	Dica pige Own	(68)	No.	me	inne	power And	push text	No	metric type (N)	MATERIAL STREET	(max)
						23							-0.0	1.5
						25			0.18	34	44	63	119 à 170	1,5
TK 10M	1000	1		7 x 21	1.1	50	467	90	0.16	67	69	90		2
TK 20M	2000	2	2	7 x 21	13	50	593		0.18	78	63	109	66 to 115 119 to 160	2.8

That TK single phase range

The weight includes counting chain look 2 mi



The weight mesudes operating than toop 2 int
 With electric drive violes - for hand operated moles under its the cores traces leaded



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.

Moder	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 x24	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
		e model on a					



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.

4600													
They	WLL	Number of strands	Standard litting height*	Maximum force on lever (4s/Xan)	Weight	Chain size**	A	8	C C	s in mi	E E	rs F	Hmin.
250	250 10	1	1.5	26	2	4 x 12	91	70	71	157	21	28	233
500	SVE 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	1000	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



^{* -} model on request

^{** -} Weight of load chain and hand chain per meter



BLOCMAT® FALL ARRESTERS

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

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

Blocmat BS 250

- · Capacity 250 kg
- · Rope stroke: 15 m
- Limited fall arrest height.
- 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®

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.

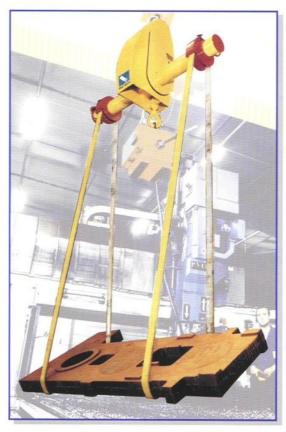
Pal Beam®



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

Pal Turn®



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.

TECHNICAL DATAS

- WLL from 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 devicel

- 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, machanically-welded structures



KS - Multiposition clamp for plates

Ref.	Grab mm	WLL
KS075	0-15	750
KSI	0-20	1000
KS2	0-25	2000
KST	0.30	3000



NK - Automatic self-locking multiposition clamp for plates

Ref.	Grab mm	WLL
NKL		1500
NK1	20-40	1500
NKI	40-60	1500
NK2	0-30	3000
NKI.	30-60	3000
NR2	68-90	\$500
NKI	0-40	4500
SK3	40.80	4500
NK3	80-129	4500
NK5	0-50	7500
NK5	50-100	7500
NK5	100-150	7500



non-marring multiposition clamp for plates For materials with tragile surface

	Grab	WLI	
Ref.	mim	kg	
	0.20	500	
NXR05	9-100	500	
NXR05	20-120	500	
NAME OF	100 3.000	1000	

NX - Automatic self-looking and

NX1,5 0-30 R - adjustable model



TLH/TLR - Clamps for horizontal plates
(her in pair(s) - TLR advisable model)

Ref.	Grab	WLI
TLHI	0.60	1000
TEH	6-120	1000
TLH2	0.60	2000
TLHZ	6-120	2000
TLIB	0-60	3000
TLHO	6-150	3000
TLH4	0.60	4000
TLH4	0-150	4000
TLHS	0-60	5000
TLHS	0-150	5000
TLHIB	0.60	10000
TLHID.	6-150	20000
TLR2	0-300	2000
TLR3	0-300	7000
TLRS	0-300	5000
TLR10	0-300	10000
TLR25	0.300	25000



QR - Double hooks for lifting horizontal plates Use in puir(s)

Ref.	Opening mm	WLL kg
QRJ	0-300	3000
ORn	0-300	6000
OR12	0-300	12000



TLC - Universal clamps for horizontal plates Use in pair(s)

Ref.	Grab	WLI
	0-150	1000
TUC2.5	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	WL
051.5	0.300	1500
OST	0.300	3000
056	0.700	6000



LT - Lever for separating plates Réf. Length mm



QX - Double hooks for separating and lifting horizontal plates Use in par(s)

Ref.	Opening	WI.I	
	mm		
		1000	
OX10-210	0.310	1000	

Girders, bars, pipes, blocks, rails



PR - Rails clamn

A = automatic

Ref.	Grab	WLL/clamp	
nes.	100.00	k	
PR1	20-40	1000	
PR2	40-80	2000	
PR2A	40-80	2000	



PL - Girders clamp

Ref.	Grah	WLL/clamp
	mon	Ag
PL1	95-200	1000
PL2	129-700	2000
PL3	180-450	3000
24.4	170, 300	4000



GP - Beam clamp with clamping Provides a fixed or temporary suspension point

Ref.	Grab	WL
GPI	60-190	1000
GP2	HG-200	2000
GP3	50-300	3000
GPS	100-340	5000
GP10	100-390	10000



PB - Clamp for lifting loads with parallel sides

Ref.	Grab	WLI
	mm	kg.
PB05	0-100	500
PB05	100-250	500
PB05	200-500	500
PBI	0-200	1000
PBI	200-500	1000
PBI	500-800	1000
1975-1	700 1000	1,0000



K.P.- Semi-automatic clamp for lifting girders For litting a girder by the flange while maintaining the web vertical

Ref.	Grab	WLI
KP1	0.20	1500
KP2	0.70	1000



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

Ref.	Grab mm	WLI kg
ZAC L5	60-250	1500
ZAE 1.5	250-100	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	WLL/clamp
RPL	mm	kg
RT05	50-100	500
RT:	100-200	1000
RT2	200-350	2000
RT3	250-450	3000



PP - Adjustable clamp for lifting loads with parallel sides

Ref.	Grab	WLI
	70.09	kg
PPE	200-1000	1000

Civil engineering and building



RB- Manholes hooks Automatic adjustment - Use only by 3

Réf.	Grab	WLI
RH1.5	40-110	1500



SCX - Litting beam for cone-shaped concrete manholes

Ref.	0	Grab	WLL
SCX07		700	700



TB - Pipes hooks Use in pair - Large bearing surfaces

Ref.	Grab	WLL
Nes.	mes	kg
BI	0-150	1000
TB2	0-200	2000



F. Pipes hooks Use in pair

Ref.	Grab mm	WL.
12	0-60	2000
F5	0-75	5000
110	0-100	10000
FIS	0-100	15000



BX - Kerbstone clamp

Ref.	Grah mm	WLI
BX01	1000	100
BX0(D*	1000	100
BX02	120-300	200



TF- Automatic load positioner for double

rope sling or strop

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

A : automatic model

Ref.	Grab	WL
T1505 ::	230/400	500
TIA05	230-400	500
T1505	380-n50	500
TIX05	380-n50	500
TISI	450-900	1000
TTAL	2000, 6000	1,000

Load positioners



TC- Automatic load positioner for rope slina

Ref.	O Cable mm	WLL 45°
		2000
TCI	13	3000
TCS.	136	5000



TE- Load positioner with automatic locking for chain sling

Réf.	dia. chain mm	WI.I. à 120°
TEL6	7	1600
TES	10	3000
TE4.5	13	4500



		13
Ref.	dia, cable	WLL 450
TF1.5	4	1500
TEI	17.2	3000
TES.	16.8	3000
THIO	23	10000
man have	12.00	And Address

Drums clamps



HF - Semi-automatic drums clamp for horizontal lifting

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



VLF - Drums clamp for vertical

	O Drum	WII
Ref.		*****
	mm	6.5
VLF05:	600	500
VLFOR	600	8000



VFA - Automatic drums clamp for vertical lifting

Ref.	O.Fút	CM
	mm	A.E.
VFA025	600	300



VFR- Semi-automatic drums clamp for vertical lifting

m:	O Drum	WLI
Ref.	mm E	kg
VFR05-5	400-500	:500
VFR05-6	500-600	500



lifting

Ref.	O Drum	WLI
	mm	kg
VLF05	600	500
VLFOR	600	800



VFB · Drums clamp for lifting and revolving

Ref.	O Drum	WL
	101/00	r.g.
VFB025S	600	3(X)
VFB025A	600	300
VFB025AR	600	300

Various loads



TO - Universal drum cable hook Use in pair

Duf.	WLL
MAC IL	ke



CR- C-hook for lifting and turning coils

Ref.	Collwatte	WLI
	998	kg
CR05	50-120	500
CRI	70-140	1000
CR2	100-200	2000
CR2	160-330	2000

Other dimensions on request



CC - Containers lugs Use in fours

Paf.	WLL/lug
PACE.	kg
CCB/CCV7.5	7500
CCB/CCV12.5	17500



PC - Automatic safety fork lift truck

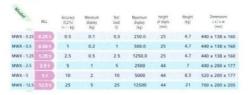
Ref.	Tines width mm	WLI
PC1.5	120	1500
PC3	170	3000



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.

Toller.	Wil	Accuracy (+ / - kg)	Minimum display (kg)	flest Load (1)	Maximum display (kg/t*)	Height of digri(mm)	Weight (kg)	Dimensions L s 1 x W (mm)
LLX - 0.25	1251	0.5	0.1	0.5	250.0	18	1.1	190 x 83 x 56
ELX - 0.5	0.5031	1	0.2	1	500.0	18	1.1	190 x 83 x 55
LLX - 1.25	TELL	2.5	0.5	2.5	1250.0	18	1.1	190 x 83 x 56
LLX - 2.5	PLIE	5	1	5	2500	18	1.4	214 x 83 x 56
LLX - 5	-11	10	2	10	5000	18	1.9	226 × 90 × 56
LLX - 12.5	77X (1)	25	5	25	12500	25	3.8	310 x 110 x 58
LLX - 25	211	50	10	50	25000	25	6.6	360 x 134 x 68
LLX - 50	101	100	20	85	50000	25	15.1	440 x 164 x 98
LLX - 100	100	200	50	145	100.00*	25	46.0	660 x 260 x 118
LLX - 250	2501	500	100	333	250.00*	44	215	905 x 424 x 248













IPC interface





MWX infrared control

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

Mode,	WLL	Accuracy (0.8%) (+ / - kg)	Minimum display (kg)	Weight	Dimensions Lx1xw (mm)
LLZ - 0.25	9.251	2	0.5	1.1	220 x 90 x 42
LLZ - 0.5		4	- 1	1.1	220 x 90 x 42
LLZ - 1		8	2	1.1	220 x 90 x 42
LLZ - 2		15	5	1.3	233 x 90 x 48
LLZ - 3.2		25	5	1.5	243 x 97 x 48
LLZ - 6.4		50	10	2.3	275 x 115 x 48
LLZ - 10		80	20	.4	325 x 110 x 62
LLZ - 20	Elita	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.



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® TENSIOMETER 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
 - 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 to 13	5000	370	2
HF 36/2	10 to 22	20000	500	4
HF 36/5	20 to 44	40000	800	6

tension must be known or checked.

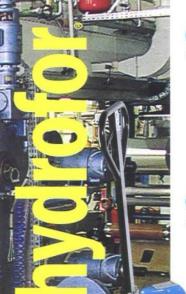








aLoad cell



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

HORE,	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	adam ka	74	190	1150	550	82	60 x 72	180 x 50	
Pioneer SP	2000 IS	84	200	1150	550	84.5	70 x 80	180 x 50	
Pioneer SP	ann is	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® Hilift

- 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
 - Manually operated single block hydraulic ram with a projecting lifting toe. The load can be handled either by the toe or by the the jack head.
 - · Robust construction with a single block steel body.



TOP® RACK-AND-PINION JACKS

- BT SERIES, AVAILABLE IN 5 MODELS, CAPACITY 3 TO 20 TONNES
 - · Shaft made of high quality steel sheet.
 - · Gears, pinions and racks made of heat-treated steel.

age.	WLL	Ratio	Life	Effort on	Weight
_	100		(mm)	(kg)	[kg]
BT 2,5		2:1	345	38	14
BT 5		2:1	360	55	22
BT 10		2:1	320	54	38
BT 16		3:1	320	73	65
BT 20	-X1	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 15 to 100 tonnes heavy duty presses.
- · fabricated steel frame, supplied with two V-blocks for centring
- · 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 DESANTLEABLE 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

TO OFFER THE BEST STABILITY OF THE LOAD AND MAKES ITS GUIDING EASIER.

· Handles (plate on ball-bearing ring)

· Roller skates (connected via a linking bar to spread the load)

Nylon wheels with ball bearing (except 8 t trolley skate with PU wheels)

Moder	WLL	Load bearing area (cm²)	Height (kg)	Dimensions (mm)
Skates	21	285	5	106 - 270
with	41	625	11	232 - 270
top plate	51	940	25	348 - 270
Skates	41	261	14	
with	61	880	50	
handle	81	880	50	



TRACTEL GROUP

Lifting materials handling measurement and control

Height safety equipment

Temporary access equipment

Permanent access equipment

Tractel products are certified:

TRACTEL is certified:



CE







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