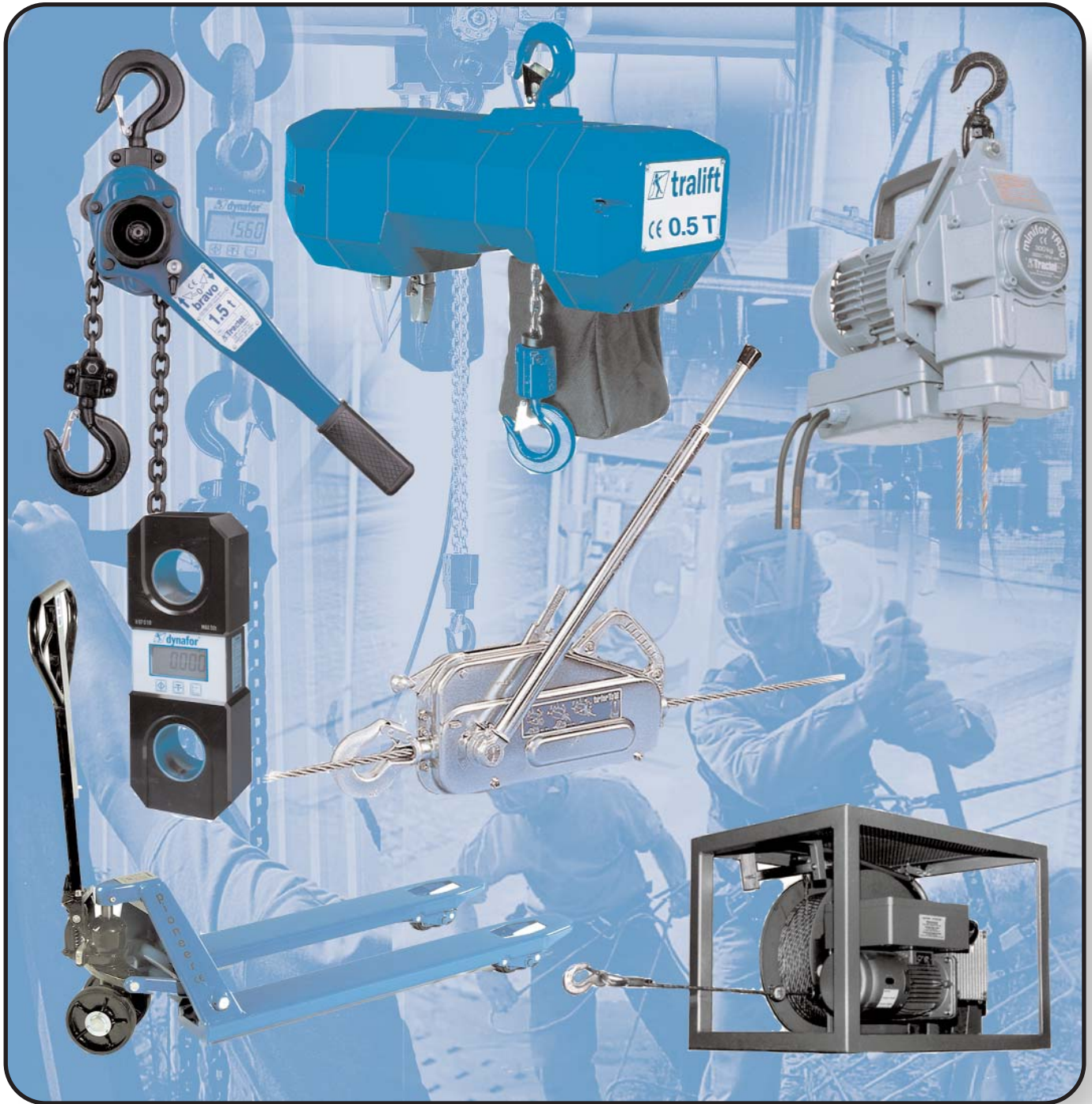


# Lifting - Material Handling Measurement & Control





Founded in the 1940's, the Tractel Group, through its worldwide manufacturing and distribution network, provides products and services to the material handling, suspended access and fall protection industries. The Tractel Group has distribution and representation through companies in 16 countries and representatives in every major international market. The Tractel Group employs over 1,000 men and women.

For over 50 years, Tractel has been designing and manufacturing innovative products and solutions for lifting, pulling and supporting all kinds of loads in dynamic environments. With the help of our time and field tested technologies, we have become a world leader in the material handling market. Our lifting and pulling equipment, such as the Griphoist-Tirfor® and the Tirak®-Gripwinch, are known worldwide. Whether your applications require light or heavy-duty equipment, Tractel has the product to get the job done. Our history is our guarantee of quality, making Tractel the trusted name in the industry. For solutions in lifting or pulling, call Tractel.

## North America Locations

### United States



**Tractel Inc. - Boston**  
 110 Shawmut Road, Ste 2  
 Canton, MA 02021  
 Toll free:1-800-421-0246  
 Local:1-781-401-3288  
 Fax:1-781-828-3642



**Tractel Inc. - Los Angeles**  
 315 Cloverleaf Drive, Unit E.  
 Baldwin Park, CA 91706  
 Toll free:1-800-675-6727  
 Local:1-626-937-6727  
 Fax:1-626-937-6730

### Canada



**Tractel Ltd. - Montreal**  
 11020 Mirabeau St.  
 Anjou, Quebec H1J2S3  
 Toll free:1-800-561-3229  
 Local:1-514-493-3332  
 Fax:1-514-493-3342



**Tractel Ltd. - Toronto**  
 1615 Warden Ave  
 Scarborough, Ontario M1R 2T3  
 Toll free:1-800-465-4738  
 Local:1-416-298-8822  
 Fax:1-416-297-1053

**WIRE ROPE  
HOISTS**

**MANUAL WIRE ROPE HOISTS pg. 4-6**

**POWERED WIRE ROPE HOISTS pg. 7-9**

**CHAIN  
HOISTS**

**MANUAL CHAIN HOISTS pg. 10-11**

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**TROLLEYS / BEAM CLAMPS pg. 14-15**

**BELOW THE  
HOOK...**

**WIRE ROPE pg. 16**

**LIFTING ACCESSORIES pg. 16-17**

**LOAD  
MEASURING  
& LIMITING  
SAFETY**

**DYNAMOMETERS pg. 18-20**

**LOAD LIMITING DEVICES pg. 21-23**

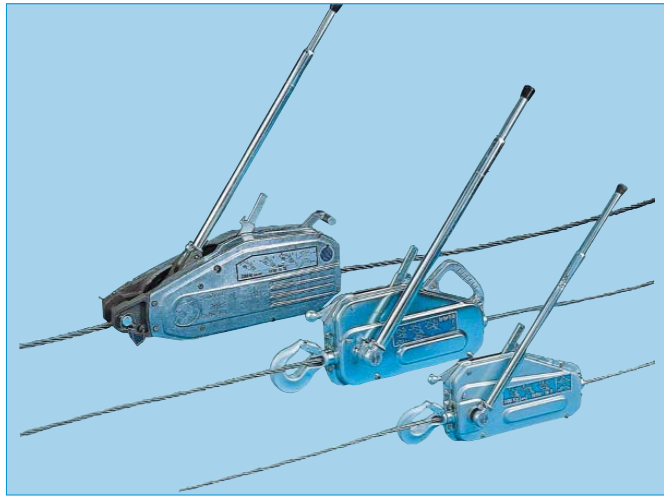
**MATERIAL LOAD ARREST DEVICES pg.24**

**FLOOR  
HANDLING**

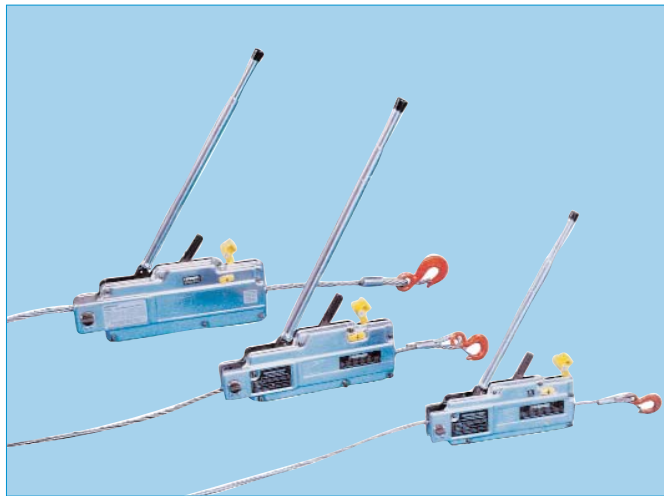
**PALLET TRUCKS pg. 25**

**JACKS / TROLLEY SKATES pg. 26-27**

The TIRFOR® **lifting and pulling machines** are safe, reliable and efficient. Suitable for many applications, Tirfor® machines are lever operated hoists using a separate wire rope. One-man operated, using a telescopic operating handle, they can work in any position and over any height of lift. They can replace conventional winches and other hoists for many applications. Best uses are in long pulls or when requirements call for increasing capacity.



Powerful: Griphoist-Tirfor® TU machines are in daily operation on construction sites around the world putting power where it is needed for lifting, pulling and handling a wide variety of loads.



Choice: light and compact, the Griphoist-Tirfor® T-500 D machines are easy to handle, provided a high mechanical advantage and are economical.

### MULTIPLE OPERATION

- ◆ works in any position, horizontal, vertical or angled
- ◆ unlimited length of wire rope
- ◆ increase the nominal capacity with multiple sheave blocks (pg. 17)
- ◆ long length of wire rope much easier to handle than chain

### SIMPLE

- ◆ fast and easy installation and use
- ◆ simple to install or remove the wire rope
- ◆ continuous operation without jerking
- ◆ reduced maintenance with simple cleaning and regular lubrication
- ◆ changeover from forward to reverse operation by transferring the operating handle from one lever to another

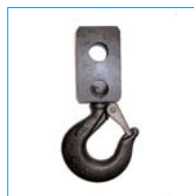
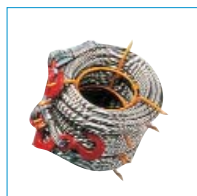
### HEAVY DUTY

- ◆ high mechanical advantage
- ◆ both ranges will operate in the most difficult conditions

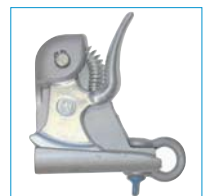
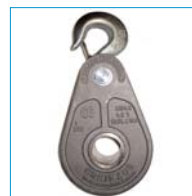
### SAFE AND RELIABLE

- ◆ the load is always permanently controlled with the utmost precision: when operation stops, the load is distributed on two jaw blocks
- ◆ safety shear pin(s) to prevent dangerous overloading
- ◆ TU range classified for man-riding applications

**\* Technical sheets available**



See pages  
16 - 17  
for Tirfor®  
Accessories



## APPLICATIONS

### Construction, public works, civil engineering

- ◆ moving & positioning formwork horizontally or vertically
- ◆ positioning section or precast concrete beams
- ◆ lifting work platforms or suspended working platforms
- ◆ dragging, general lifting, guying, tensioning, etc.

### Bridges

- ◆ positioning formwork
- ◆ guy rope tensioning
- ◆ pulling pre-cast concrete beams
- ◆ suspending inspection and maintenance platforms

### Steel structures

- ◆ plumbing or aligning steel structures
- ◆ erecting steel silos

### Industry

- ◆ installation & removal of machine tools and presses
- ◆ loading & unloading of heavy equipment
- ◆ lifting & pulling during maintenance operations

### Escalators, elevators

- ◆ loading, unloading and rigging of escalators
- ◆ lifting & positioning the cars and hoisting mechanisms

### Electricity and telecommunications

- ◆ positioning transformers
- ◆ erection of mobile aerials and antennas
- ◆ tensioning underground and overhead cables
- ◆ guy rope tensioning operations

### Oil and chemical industries

- ◆ controlled positioning & assembly of pipes & ducting
- ◆ tensioning guy ropes for silos & tanks during construction
- ◆ inspection & maintenance work



Model	unit	TU-17	TU-28	TU-32	T-508	T-516	T-532
Rope travel/ stroke lifting	in.	2	1.4	.5	2	1.4	5
Nominal capacity	lbs. (kg)	2,000*/ 1,500** (900/680)	4,000*/3,000** (1,600/1,200)	8,000*/6,000** (3,200/2,400)	2,000* (800)	4,000* (1,600)	8,000* (3,200)
Machine weight	lbs. (kg)	18.5 (8.4)	41 (20)	59.5 (27)	14.25 (6.6)	30 (13.5)	51 (24)
Wire rope weight	lbs. (kg)	30ft./9m 8 (3.6)	60ft./18m 28.9 (13)	30ft./9m 8 (3.5)	30ft./9m 8 (3.5)	60ft./18m 28.9 (13)	30ft./9m 8 (3.5)
Machine dimensions	in. (mm)	20 <sup>3</sup> / <sub>4</sub> x 9 <sup>3</sup> / <sub>4</sub> x 41/2 (825 x 284 x 113)	26 x 13 x 5 <sup>3</sup> / <sub>4</sub> (660 x 360 x 145)	27 x 13 x 6 <sup>1</sup> / <sub>8</sub> (685 x 365 x 156)	16 <sup>1</sup> / <sub>2</sub> x 9 <sup>7</sup> / <sub>8</sub> x 3 <sup>7</sup> / <sub>8</sub> (420 x 250 x 99)	20 <sup>7</sup> / <sub>8</sub> x 12 <sup>7</sup> / <sub>16</sub> x 5 (530 x 315 x 127)	24 <sup>7</sup> / <sub>16</sub> x 14 x 5 <sup>1</sup> / <sub>8</sub> (631 x 357 x 148)
Handle ext./closed	in. (mm)	28/18 (730/450)	45/26 (1147/648)	45/26 (1147/648)	27/16 (690/405)	45/26 (1147/648)	45/26 (1147/648)
Wire rope dia.	in. (mm)	5/16 (8.3)	7/16 (11.5)	5/8 (16.3)	5/16 (8.3)	7/16 (11.5)	5/8 (16.3)
Min. W.R. breaking strain	lbs. (kg)	10,000 (4,800)	20,000 (9,600)	40,000 (19,200)	10,000 (4,800)	20,000 (9,600)	40,000 (19,200)

\* capacity for material handling

\*\*capacity for manriding

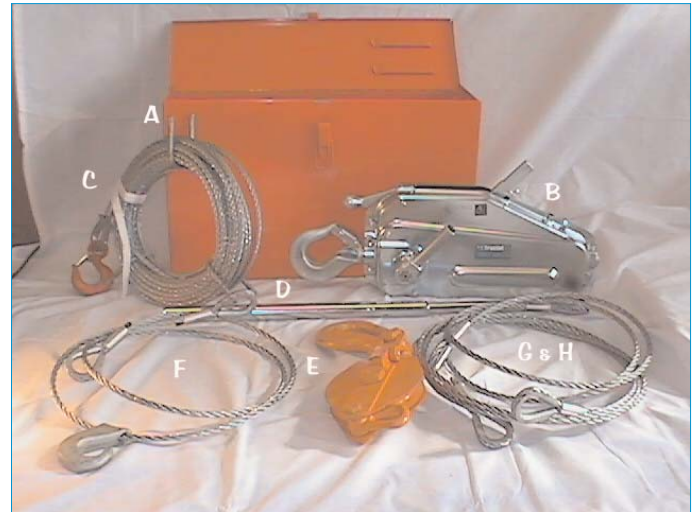
(conversions are approximate)

## GRIPHOIST / TIRFOR® - RESCUE KITS

Easily and quickly set up, Griphoist / Tirfor® rescue kits **lift, pull and lower loads to save lives**, rescue accident victims, remove obstructing trees and debris, tear down walls, handle wrecked automobiles and trucks and solve scores of other accident and disaster problems.

**each rescue kit includes:**

- A- Steel Box
- B- Griphoist / Tirfor®
- C- 60 ft. of galvanized wire rope with safety hook mounted on carrying reel
- D- Telescopic handle for manual operation of hoist
- E- Appropriate snatch block pulley
- F- wire rope sling 6 ft. long with choker hook
- G & H - 2 wire rope slings 6 ft. and 9 ft. long



## PULL - ALL® / JOCKEY® - WINCH-HOIST WITH UNLIMITED WIRE ROPE

The Pull-All® / Jockey® is a **universal lifting and pulling device**. This device is ultra-lightweight and strong and is easy to operate and maintain. The Pull-All® can be used in countless applications.

**Handy**

In just a few seconds the Pull-All® is ready for operation:

- ◆ Disengage wire rope release knob
- ◆ Insert wire rope and push slack rope through the machine
- ◆ Lock wire rope release knob into position
- ◆ Anchor the PULL-ALL® to a fixed point and attach load to wire rope hook
- ◆ Place operating handle on forward motion lever and move it to and fro. The PULL-ALL® is ready for use!

**Indispensable**

The PULL-ALL® is the ideal handyman tool for:

- ◆ Positioning trailers in places impracticable for a car
- ◆ Removing car engines
- ◆ Up-rooting small trees and stumps of small fruit trees and shrubs
- ◆ Freeing cars when stuck in mud, snow or a bog
- ◆ Beaching boats which cannot be reached by a transport vehicle
- ◆ Tensioning wires and wired fencing
- ◆ Tensioning overhead electric cables, erecting and tensioning wood or lattice masts, plyons, as well as concrete forms
- ◆ During house construction - installing radiators, heating elements, beams, uprights, and bearers



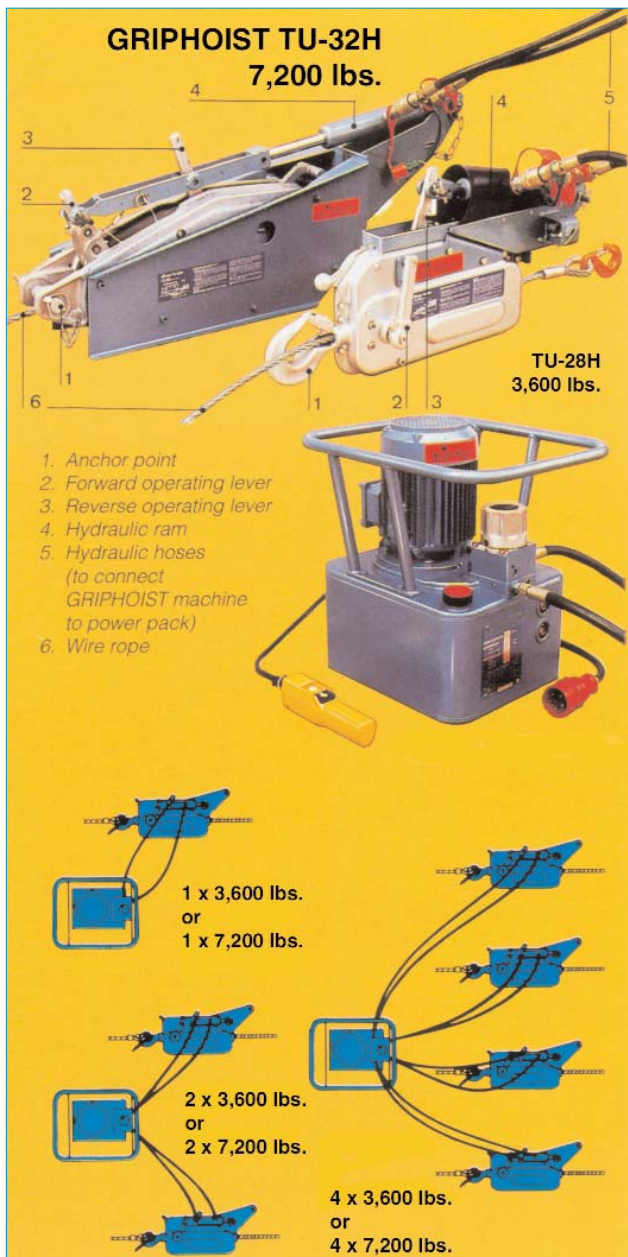
Model	unit	Pull-All (J3)	Super Pull-All
WWL	lbs. (kg)	700 (315)	1500 (680)
Machine weight	lbs. (kg)	5.5 (2.5)	11 (5)
Wire rope dia.	in. (mm)	3/16 (5)	1/4 (6.5)
Effort on handle	lbs. (kg)	17.6 (8)	52.8 (24)
Dimensions of the machine	in (mm)	12.7x7.9x1.6 (320x200x40)	14.7x8.5x2.2 (370x215x55)

## HYDRAULIC TIRFOR®

The hydraulic Griphoist / Tirfor® with self-reciprocating rams are available in two models

- ◆ TU-28H (3,600 lbs. material handling capacity)
- ◆ TU-32H (7,200 lbs. material handling capacity)

A hydraulic power pack can operate one, two or four of these machines from a central location. The power packs are operated by either electric motors or gasoline engines. The speed of operation is controlled using a variable flow control valve.



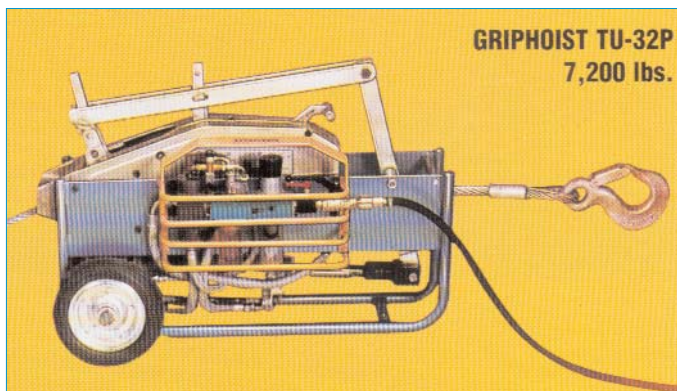
Model	unit	TU-28H	TU-32H
Nominal capacity material handling	lbs	3,600	7,200
Max. speed forward / lifting*	fpm	6.5	3.25
Max. speed reverse / lowering	fpm	8.7	5.9
Weight - Griphoist w/ ram	lbs.	64	114
hydraulic power pack, w/ oil	lbs.	95	92
gasoline engine power pack	lbs.	112	112
Griphoist wire rope **	in. mm	7/16 11.6	5/8 16.3
Wire rope construction		5 x 26	5 x 31

\*Speed for one hoist only

\*\* Wire rope is sold separately

## PNEUMATIC TIRFOR®

The Pneumatic Griphoist / Tirfor® machine (model TU-32P) is operated by a **self reciprocating pneumatic ram, powered by compressed air**. The TU-32P is particularly suitable for operating on construction sites and industries where there is a danger of explosions eg. oil refineries, chemical industries etc. or in industries which are already provided with compressed air facilities (power stations, shipyards, etc.)



### TU-32P

Nominal Cap. - material handling	7,200 lbs.
Max. speed - forward lifting	2.5 fpm
Max. speed - reverse lifting	6.0 fpm
Operating pressure	112 psi
Flow	24 cfm
Weight (overall)	194 lbs.
Griphoist wire rope dimension	5/8"
Wire rope construction	5 x 31

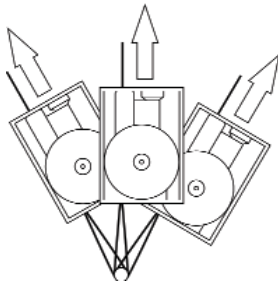
The Gripwinch is a **motorized traction hoist built for lifting and pulling in a wide variety of applications.** The mechanism is engineered in such a way that the wire rope runs through the Gripwinch without being stored, allowing unlimited wire rope length capability. For easier manipulation and storage, the Gripwinch® is available in several models, with or without winder, free standing or mounted on a frame, electric, hydraulic or air operated.

**RUGGED, VERSATILE AND SAFE**

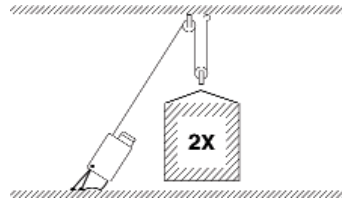
- ◆ Extremely compact
- ◆ Works in any direction
- ◆ Single line capacity 700 to 6,600 lbs.
- ◆ Power Supply - 110, 220V/1ph, 220V/3ph, 480V, air, hydraulic
- ◆ Unlimited length of wire rope
- ◆ Operating speed
  - 17 - 35 - 70 fpm
  - 17/35, 17/70, 35/70 fpm dual speeds available for 3 phase versions
- ◆ Control type - 10 ft. hardwired pendant control, detachable control, direct control, or central control



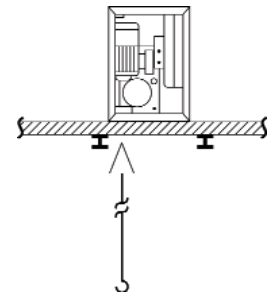
**MULTIPLE USES**



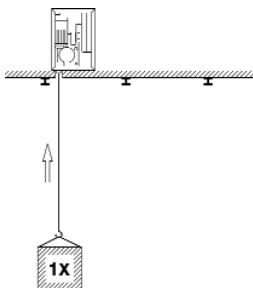
The mobile Gripwinch automatically turns in the direction of the pull. Furthermore, with the mobile Gripwinch, the capacity and speed remain constant at all times.



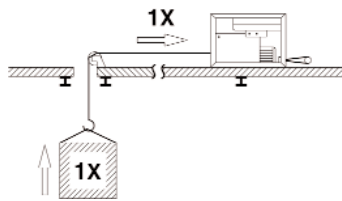
It is possible for lifting and pulling applications, to increase the capacity of the Gripwinch by using multiple sheave blocks.



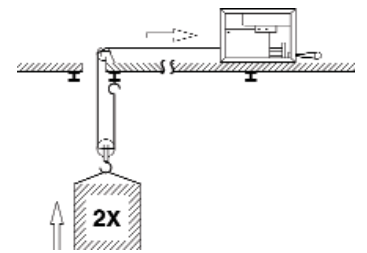
If the hole is not big enough for the rope hook to pass through, position the mobile Gripwinch and pass the wire rope through the hole and then into the Gripwinch.



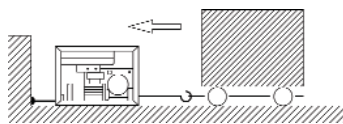
If the pull is through an opening in the wall or ceiling capable of taking the load simply locate the Gripwinch near or above the hole.



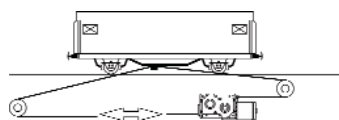
To lift anchor the mobile Gripwinch to a suitable point and pass the wire rope around one or more return pulley.



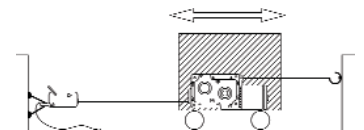
If the effective power is not enough, increase the capacity using a set of multiple sheave blocks.



To anchor the frame, simply attach the mobile Gripwinch to a suitable anchored point using a wire rope sling, chain or similar attachment.



The Gripwinch can move the load to-and-fro.



The Gripwinch can move with the load.

- ◆ Portable and powerful for unlimited heights of lift
- ◆ A complete range of electric hoists for a wide range of applications
- ◆ Rated loads of 220 lbs, 660 lbs, and 1,000 lbs which can be doubled by a sheave kit
- ◆ Unlimited height of lift
- ◆ Unloaded wire rope freely suspended or optional rope reeler
- ◆ Pendant control
- ◆ Direct lift or sheaving kit for increased capacity
- ◆ Single phase or 3 phase power
- ◆ TR 10 & TR 30 come with blue steel box  
TR 30S & TR 50 come in cardboard box

**Quality & Power**

- ◆ High power to weight ratio
- ◆ Body in aluminum alloy
- ◆ Unlimited length of lifting wire rope
- ◆ Wire rope, dia. 0.25 in. (6.5 mm)
- ◆ 110V standard, 220V available

**Safety**

- ◆ Upper and lower adjustable end limit stops
- ◆ Motor integrated brake



TR50



TR30



Minifor® fitted with wire rope reeler (optional)



Minifor® TR10 - TR30 kit



Minifor® TR10-TR30 fitted with sheave block kit (optional)

Model	Dimensions L x W x D in.	Weight with- out wire rope lbs (kg)	WLL lbs. (kg)		Speed fpm (mpm)		Power Supply			Optional WR Reeler	
			Direct	Sheaved	Direct	Sheaved	single phase 115 V	single phase 220 V	three phase 220 V	66 ft. 20 m	100 ft. 35 m
TR10	14 x 9 x 17	46 (20)	220 (100)	441 (200)	50 (15)	25 (7.5)	◆	◆		◆	◆
TR30	14 x 9 x 17	46 (20)	660 (300)	1,320 (600)	17 (5)	8.5 (2.5)	◆	◆		◆	◆
TR30S	19 x 9 x 17	71 (32)	660 (300)	1,320 (600)	43 (13)	21 (6.5)	◆	◆	◆		
TR50	19 x 9 x 17	71 (32)	1,000 (453)	2,000 (906)	23 (7)	11.5 (3.5)	◆	◆	◆		

The Bravo lever hoist is ideal for industrial and building/civil engineering applications. With a 1/4 t to 6 t capacity, this hoist is designed for pulling, lifting, positioning and adjusting loads in workshops and/or on building sites. Meets or exceeds ANSI B30.21C, Manually Lever-Operated Hoist code.

**Strong**

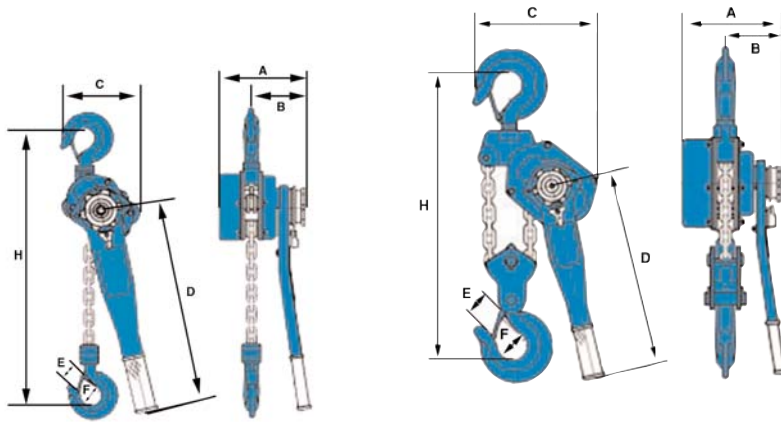
- ◆ The hoist and its components are made of high tensile alloy steel
- ◆ Excellent weight / capacity / size ratio

**Safe**

- ◆ 360° swivel hook with overload opening indicators
- ◆ Removable safety catches marked with WLL of the hoist
- ◆ 5 sprocket load wheel with closed bearings
- ◆ Free wheel safety device activates braking mechanism when load applied in neutral position

**Options**

- ◆ Load limiter (except on 1 t)
- ◆ Shipyard hooks (for 1 1/2 & 3 t only)
- ◆ Safety hooks



0.25 to 3 t.  
(250 to 3,000 daN/kg)

6 t  
(6,000 daN/kg)



Technical sheets available

Model	unit	0.25 t	0.5 t	0.75 t	1 t	1.5 t	3 t	6 t	
Capacity	lbs. (kg)	500 (250)	1,000 (500)	1,500 (750)	2,000 (1,000)	3,000 (1,500)	6,000 (3,000)	12,000 (6,000)	
Standard lift	ft. (m)	5 (1.5)	5 (1.5)	5 (1.5)	5 (1.5)	5 (1.5)	5 (1.5)	5 (1.5)	
Number of falls		1	1	1	1	1	1	2	
Effort on lever at capacity	lbs. (kg)	57 (26)	79 (36)	44 (20)	57 (26)	46 (21)	73 (33)	75 (34)	
Load chain size	mm	4 x 12	5 x 15	6 x 18	6 x 18	7 x 21	10 x 30	10 x 30	
Dimensions	A	in. (mm)	3.6 (91)	4.3 (110)	5.5 (139)	5.5 (139)	6.9 (174)	7.9 (200)	7.9 (200)
	B	in. (mm)	2.8 (70)	3.1 (80)	3.3 (84)	3.3 (84)	4. (108)	4.5 (115)	4.5 (115)
	C	in. (mm)	2.8 (71)	4.8 (122)	6 (153)	6 (153)	6.3 (160)	7.3 (185)	9.1 (230)
	D	in. (mm)	6.2 (157)	9 (228)	11.3 (288)	11.3 (288)	16.5 (418)	16.5 (418)	16.5 (418)
	E	in. (mm)	0.8 (21)	0.9 (23)	1 (26)	1 (26)	1.2 (31)	1.5 (39)	1.8 (45)
	F	in. (mm)	1.1 (28)	1.4 (35)	1.5 (37)	1.5 (37)	1.8 (45)	2.2 (55)	2.6 (65)
H min.	in. (mm)	9.2 (233)	12 (305)	11.9 (303)	11.9 (303)	14.6 (370)	19.7 (500)	24.8 (630)	
Weight	lbs. (kg)	4 (2)	11 (5)	15 (7)	15 (7)	24 (110)	44 (20)	66 (30)	



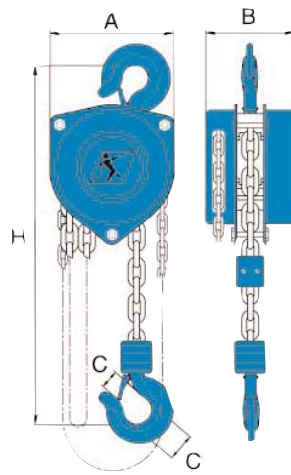
- ◆ WLL 0.25 to 20 tons
- ◆ 360 ° swivel hook with overload opening indicators
- ◆ Automatic brake with double pawl system
- ◆ Tested to 150% of WLL
- ◆ Self-lubricating chain
- ◆ Optional load limiter
- ◆ Meets or exceeds ANSI B30.16, Overhead Hoist (Underhung) code

### Options

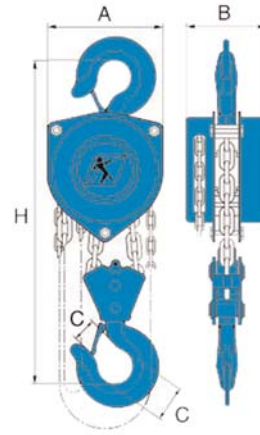
- ◆ Load limiter (except on 1 t)
- ◆ Shipyard hooks (for 1 1/2 & 3 t only)
- ◆ Safety hooks



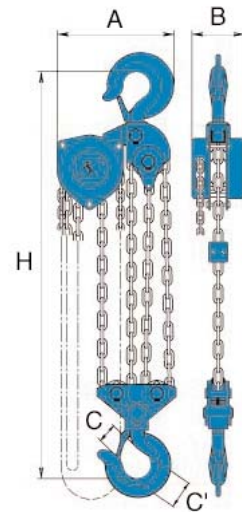
see pgs. 14-15  
for mounting accessories



WWL 0.25T to 2 T  
(250 to 2,000 kg)



WWL 3T to 5T  
(3,000 to 5,000 kg)



WWL 10T  
(10,000 kg)

Technical sheets available

Model		unit	0.25 T	0.5 T	1 T	1.5 T	2 T	3 T	5 T	10 T	20 T *
Capacity	lbs. (kg)		500 (250)	1,000 (500)	2,000 (1,000)	3,000 (1,500)	4,000 (2,000)	6,000 (3,000)	10,000 (5,000)	20,000 (10,000)	40,000 (20,000)
Standard Lift	ft. (m)		10 (3)	10 (3)	10 (3)	10 (3)	10 (3)	10 (3)	10 (3)	10 (3)	10 (3)
Number of falls			1	1	1	1	1	2	2	4	8
Effort on lever at capacity	lbs. (kg)		24 (11)	46 (21)	75 (34)	84 (38)	88 (40)	92 (42)	99 (45)	101 (47)	110 (50)
Load chain size	mm		4 x 12	5 x 15	6 x 18	8 x 24	8 x 24	8 x 24	10 x 30	10 x 30	10 x 30
Hand chain size	mm		5 x 24	5 x 24	5 x 24	5 x 24	5 x 24	5 x 24	5 x 24	5 x 24	5 x 24
weight Dimensions	A	in. (mm)	3.9 (100)	5.2 (132)	6.1 (156)	7.7 (196)	6.1 (156)	7.7 (196)	9 (229)	15.6 (395)	25.3 (642)
	B	in. (mm)	4.5 (110)	4.4 (112)	5.3 (134)	5.9 (150)	5.3 (134)	6.1 (171)	6.7 (171)	6.7 (171)	7.9 (200)
	C	in. (mm)	0.7 (18)	0.9 (23)	1.1 (27)	1.2 (31)	1.4 (35)	1.5 (45)	1.8 (45)	2.2 (57)	3 (75)
	H	in. (mm)	9.1 (230)	13.4 (340)	15.4 (390)	18.5 (470)	20.9 (530)	24.8 (730)	28.7 (730)	36.2 (920)	41.3 (1050)
weight	hoist & stand. chain	lbs. (kg)	9 (4)	20 (9)	27 (12)	42 (19)	44 (20)	62 (28)	90 (41)	174 (79)	393 (178)
	add. chain per 5 ft.	lbs. (kg)	-	5.5 (2.5)	6.3 (2.8)	8.3 (3.8)	9.2 (4.2)	13.7 (6.2)	19.3 (8.8)	35.6 (16.2)	71 (32.3)

\* For 20 T model please ask for dimensions data

### Hoisting Motor

- ◆ Dual or single speed motor allowing superior control
- ◆ NEMA 4 providing a level of protection to workers against accidental contact with the motor and protecting the motor against any foreign matter including dust and grit

### Hoisting Brake

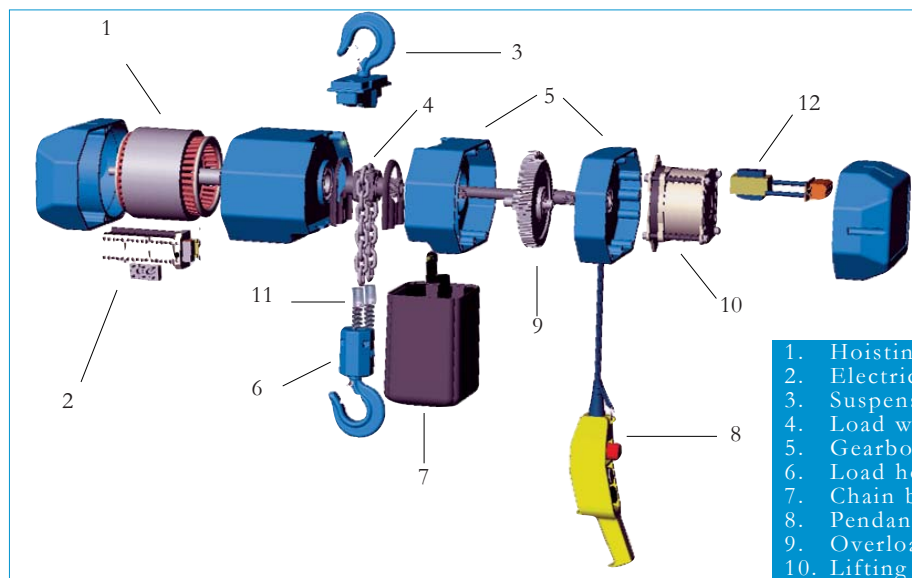
- ◆ Heavy-duty DC brake

### Gearbox

- ◆ Fully enclosed gearbox
- ◆ Lubricated gearbox which increases life of motor

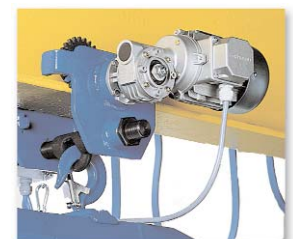
### Swivel Hook

- ◆ High strength, forged in non-ageing alloy steel
- ◆ Fitted with safety catch



1. Hoisting motor
2. Electrical panel
3. Suspension hook
4. Load wheel with chain guide
5. Gearbox
6. Load hook
7. Chain bag
8. Pendant control
9. Overload friction clutch
10. Lifting brake
11. Paddle limit switch
12. Terminal box

### Suspension Clamps and Trolleys Range:



Beam Clamp

Push Trolley

Geared Trolley

Electric Trolley

# TRALIFT TE ♦ FEATURES & BENEFITS

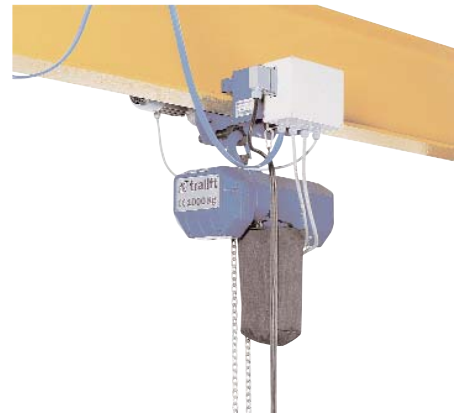
## Standard features

- ◆ 1/4 to 2 T WLL
- ◆ Electromagnetic brake
- ◆ Friction clutch load limiter
- ◆ Quiet operation
- ◆ Low voltage control using Schneider components
- ◆ Emergency stop on pendant control station
- ◆ Plug in system on control cable
- ◆ Friction clutch load limiter operating as a safety limit switch
- ◆ Heavy duty load chain class 80 grade
- ◆ Multi sized chain bags
- ◆ Insulation NEMA 12
- ◆ Power supply 220 or 480 V - **3 phase**
- ◆ H4 duty cycle

## Options

- ◆ One or two lifting speeds
- ◆ Hook or lug suspension type
- ◆ Manual or powered trolley
- ◆ Fitted with a electric drive trolley

Hoist on a monorail straight beam



Hoist on tubular profile with curve



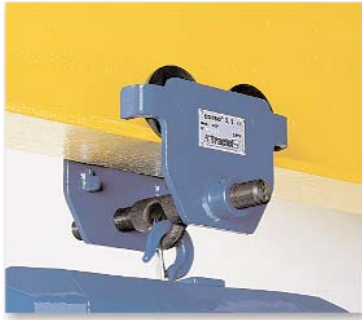
CHAIN HOISTS

Technical sheets available

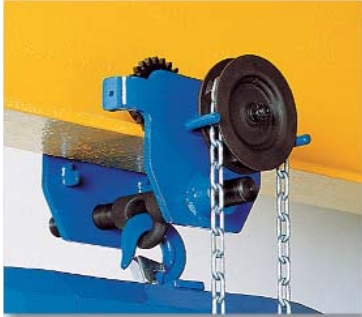
Model	Capacity	Number of falls	load chain (mm)	Lifting Speed fpm	Motor HP (kW)	Hoist weight lift 10 ft. lbs. (kg)	Electric Trolley Motor HP (kW)	Hoist/Trolley Weight			Flange width adjustment min/max in. (mm)*	Mini. curve radius in. (mm)*
								push	geared	electric lbs. (kg)		
TE 125	1/8 t 125 kg	1	4 x 12	39 39/12	0.4	55 (25)	0.29	73 (33)	-	-	2.5-7.4 (64-188)	40 (1016)
TE 250	1/4 t 250 kg	1	5 x 15	33 33/10	.55	68 (31)		0.29/0.08	86 (39)	-		
TE 500	1/2 t 500 kg	1	6.3 x 19	33 33/10	1.2	73 (33)	0.41	90 (40)	105 (48)	110 (80)		
TE 500	1/2 t 500 kg	2	5 x 15	16 16/5	0.55	84 (38)		101 (46)	117 (53)	120 (54)		
TE 1000	1 t 1000 kg	1	6.3 x 19	23 23/7	2.1	95 (49)	0.29 0.29/0.08	117 (53)	128 (58)	132 (60)	3.5-7.2 (88-182)	47 (1194)
TE 1000	1 t 1000 kg	2	8 x 24	16 16/5	1.2	124 (56)	0.41	145 (66)	156 (71)	161 (73)		
TE 2000	2 t 2000 kg	2	8 x 24	13 13/3	2.1	141 (64)		180 (82)	190 (86)	196 (89)		

\* data for electric trolley only, for push & geared see pg. 14

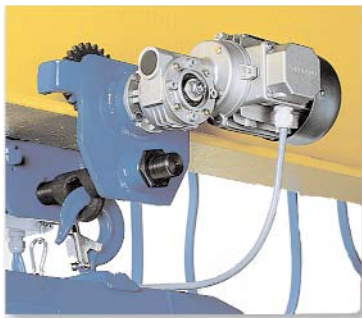
TRALIFT TE



Push Trolley  
.5 t - 10 t



Geared Trolley  
1 t - 20 t

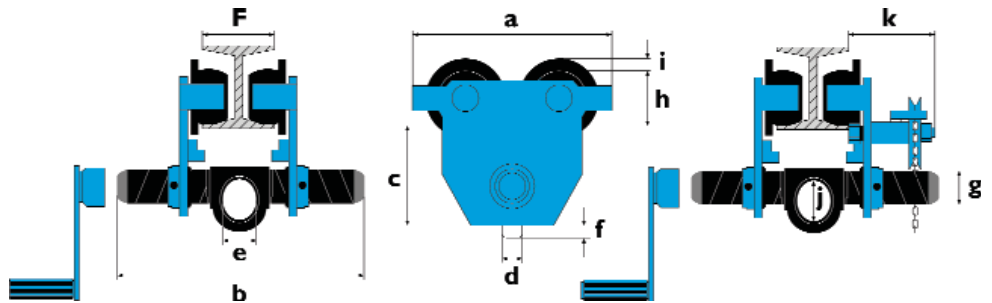


Electric Trolley  
1 t & 2 t\*\*

Range of travelling trolleys:

WLL 0.5 to 20 ton

- ◆ over-dimensioned flanges
- ◆ wide adjustment range
- ◆ steel rollers mounted on bearings
- ◆ double threaded traverse bar with closed suspension eye (1/2 t - 5 t push trolley & 1 t - 5 t chain operated)
- ◆ blocking of traverse bar, after adjustment by BTR screw
- ◆ steel end stops shaped to serve as anti-derail bars
- ◆ anti-tipping devices soldered onto flanges
- ◆ very low lost headroom
- ◆ quick and easy assembly and adjustment with the removable handle (supplied as standard)
- ◆ Special hanger bars available for wide flange (up to 11.8")



Technical sheets available

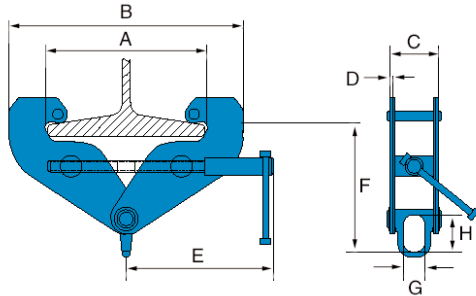
WLL	Beam width (standard)	Beam width (special)	Radius of curve	Effort on chain at capacity	Dimensions										Weight		
					a	b**	d	e	f	g	Ø h	i	j	k	push	gear	
units	in. (mm)	in. (mm)	ft. (m)	- lbs.	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	lbs. (kg)	lbs. (kg)
0.5 t	2 - 8.7 (50 - 220)	8.7 - 11.8 (220 - 330)	3 (0.9)	- -	8.9 (225)	12.8 (324)	0.6 (16)	1 (25)	0.6 (16)	1.1 (27)	2.1 (53)	0.4 (11)	1.2 (30)	- -	18.7 (8.5)	- -	
1 t	2.3 - 8.7 (58 - 220)	8.7 - 11.8 (220 - 300)	3.3 (1)	- 12	9.9 (252)	13.2 (334)	0.7 (17)	1.2 (30)	0.7 (17)	1.2 (30)	2.4 (62)	0.6 (15)	1.4 (35)	3.9 (100)	22 (10)	42 (19)	
2 t	3 - 8.7 (66 - 220)	8.7 - 11.8 (220 - 300)	3.9 (1.2)	- 22	11.8 (300)	13.5 (342)	0.8 (21)	1.6 (40)	0.7 (18)	1.5 (38)	3.2 (80)	0.7 (18)	1.8 (45)	4.7 (120)	40 (18)	50 (22.5)	
3 t	2.9 - 8.7 (74 - 220)	8.7 - 11.8 (220 - 300)	4.2 (1.3)	- 16.5	14.2 (360)	14.1 (358)	0.8 (21)	1.9 (48)	0.7 (18)	1.8 (45)	3.8 (97)	0.6 (15)	2.2 (55)	5.3 (135)	71 (32)	83 (37.5)	
5 t	3.5 - 8.7 (90 - 220)	8.7 - 11.8 (220 - 300)	4.6 (1.4)	- 26.5	15.8 (400)	14.7 (372)	1.2 (31)	2.5 (58)	0.8 (20)	2.1 (52)	4.3 (110)	0.8 (20)	2.6 (65)	5.7 (145)	107 (48.5)	121 (55)	

\* for dimensional data on 10 & 20 t trolley please contact us

\*\* for dimensional data see pg.13

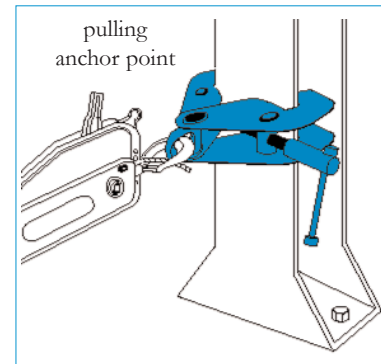
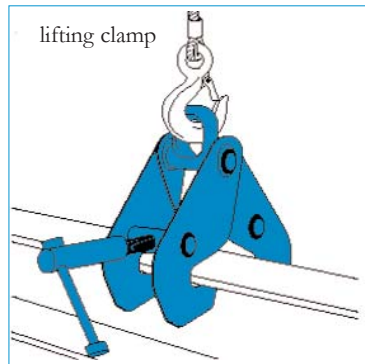
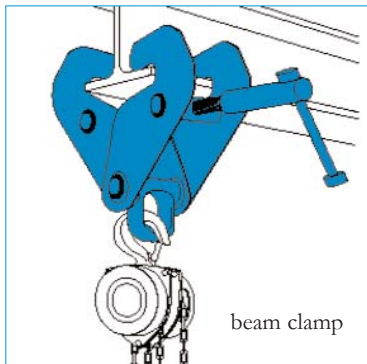
Beam clamps for manual and electric hoists, anchor points, or lifting clamps

- ◆ WVL 1 ton to 10 ton
- ◆ Range of 5 models
- ◆ Compact and sturdy construction
- ◆ Simple and fast adjustment on "I" beam



CHAIN HOISTS

Examples of applications:



Technical sheets available

WLL	Model	Dimensions										Beam width	Weight	
		A max.	B min.	B max.	C	D	E min.	F min.	F max.	G	H			
		in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	lbs. (kg)
1 t	LT-1B	10.6 (270)	7.1 (180)	15 (380)	3 (76)	0.2 (1)	8.3 (210)	4.7 (120)	6.9 (175)	1.2 (30)	1.8 (45)	3 - 9.3 (75 - 235)	10.6 (4.8)	
2 t	LT-2B	10.6 (270)	7.2 (182)	15 (84)	3.3 (6)	0.2 (210)	8.3 (130)	5.1 (130)	7.1 (180)	1.2 (30)	1.6 (40)	3 - 9.3 (75 - 240)	12.3 (5.6)	
3 t	LT-3B	14.2 (360)	9.3 (234)	13.9 (490)	4.5 (115)	0.3 (8)	10.8 (275)	6.9 (175)	9.8 (250)	1.8 (45)	2.4 (60)	3.7 - 13.2 (95 - 335)	24 (11)	
5 t	LT-5B	13.9 (354)	10 (253)	13.9 (490)	5.4 (138)	0.4 (10)	9.6 (245)	5.5 (140)	8.7 (220)	1.8 (45)	2.4 (60)	3.7 - 13 (95 - 330)	27.1 (12.3)	
10 t	LT-10B	12.6 (320)	10 (255)	22.8 (580)	6.3 (160)	0.5 (12)	110.8 (275)	9.8 (250)	11.8 (300)	2.4 (60)	3.5 (90)	3.5 - 13.8 (90 - 300)	46.3 (21)	

CORSO BEAM CLAMP

MAXIFLEX WIRE ROPES

Wire rope is an integral component of every hoist and winch supplied by Tractel (except our chain hoists, of course). Selecting the correct wire rope and following a routine maintenance and inspection program will ensure that your hoists operate efficiently for many years.

Using Maxiflex wire rope in all of our manual and powered hoists will ensure the highest level of performance for your equipment. Maxiflex wire rope is specifically developed and constructed for use in Tractel products. Proper selection will ensure the maximum possible wire rope service life. If there are ever any questions contact our Engineering Department for assistance, (this is a requirement in situations where the load can spin freely or when winders are used).



Wire Rope Selection Guide

Tractel Product Line Series	Dia. in. (mm)	Approved Construction Types wire x strands
Pull All®	3/16" (4.72)	7x7
Minifor® / Super Pull All®	1/4" (6.5)	5x19
Scafor® 408C	5/16" (8.4)	5x19* & 6x19
Griphoist T-508/TU-17	5/16" (8.4)	4x26, 5x19, 5x26 & 6x17
Griphoist T-516/TU-28	7/16" (11.5)	4x26 & 5x19
Griphoist T-532/TU-32	5/8" (16.3)	4x36
Hydraulic TU-28H	7/16" (11.5)	5x26
Hydraulic TU-32H	5/8" (16.3)	5x31
Tirak® X300/500/700 <sup>2</sup> & T400/1000 <sup>2</sup>	5/16" (8.4)	4x26, 5x19*, 5x26 & 6x17 <sup>4</sup>
Tirak® L500	5/16" (8.4)	5x19* & 5x26
Tirak® X1020 <sup>2</sup> & T1020 <sup>2</sup>	3/8" (9.5)	5x19* & 5x26
Tirak® 2050/X3050 <sup>2,3</sup>	9/16" (14.0)	5x26 <sup>3</sup>

\* Best selection for most situations

<sup>1</sup> old styles TR 10 & TR 30 used 3/16"

<sup>2</sup> call Engineering for applications with winders or when the load is able to spin

<sup>3</sup> XA 2650 requires special high strength wire rope, available for X2030/3050 upon request

<sup>4</sup> 6x17 is classified as a 6x19 which may have 15-26 wires per strand

WIRE ROPE GRIPPERS

This **wire rope gripper with a self-gripping jaw** will hold a wire rope at any point along its length to hold a load or to take up the tension while fixing or adjusting the slack end.

- ◆ Light alloy body,
- ◆ Complete with shackle for anchoring,
- ◆ Spring operated jaw for automatic gripping.
- ◆ Breech loading



Model	G2	G3	G4
Range of wire rope in. (mm)	3/32-5/16 (2-8)	5/16-9-16 (7-15)	9/16-11/16 (14-18)
Weight lbs. (kg)	.64 (.28)	1.25 (.56)	1.3 (.59)
Capacity lbs. (kg)	900 (400)	1,300 (600)	1,750 (800)
Breaking load lbs. (kg)	3,500 (1,600)	4,100 (1,900)	4,400 (2,000)

CONI-KLAM

This **wire rope gripper** can quickly lengthen wire ropes or slings. The wire rope is held by a pair of jaws, which are slightly serrated and which give a positive lock by a self-gripping wedge.

- ◆ Manufactured in forged steel,
- ◆ Breech loading
- ◆ Immediate adjustment to the requires position,
- ◆ Does not damage the wire ropes,
- ◆ High safety factor.



Model	EC10	EC14	EC21
Range of wire rope in. (mm)	3/16-3/8 (5-10)	7/16-9/16 (10.5-14)	5/8-13/16 (15-21)
Capacity lbs. (kg)	2,200 (1,000)	4,400 (2,000)	6,600 (3,000)
Weight without shackle lbs. (kg)	2.6 (1.2)	5.7 (2.6)	11.9 (5.4)
Weight with shackle lbs. (kg)	3.5 (1.6)	3.7 (8.1)	7.5 (16.5)

## HOOKS



### Standard Wire Rope Hook

Used in Maxiflex wire rope assemblies, incorporates spring loaded hook latch.



### Shipyards Hook

1 & 3 t top and bottom hooks for use in Bravo lever hoist.



### Swivel Hook

General utility hook for wire rope assemblies includes hook latch.



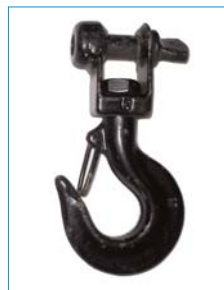
### Sliding Sling Choker Hook

Used in fashion choker slings on wire rope.  
(see rescue kit on pg.6)



### Safety Hook

For use with manual chain hoists provided for positive close when under load.



### Swivel Hook

Swivel hooks for  
- Dynafor load indicators  
- Tirfor / Griphoists

## SHEAVE BLOCK

Lightweight and heavy duty sheave block is for use with Maxiflex wire rope **increasing lifting or pulling capacity** of any Tractel wire rope hoist, including Tirfor®/Griphoist and Gripwinch. Designed to maximize wire rope service life. May be breech loaded.



Model	3329	31629	SB 7000S	SB 10500S	SB 16000S
Capacity lbs. (kg)	3.2 T	6.4T	7,000 lbs.	10,500 lbs.	16,000 lbs.
Diameter in. (mm)	4.75 (119)	8 (200)	6 (150)	8 (200)	10 (250)
Wire rope in. (mm)	7/16" (11.5)	5/8 (16.3)	5/16 & 3/8 (8.3 & 9)	7/16 (11.5)	5/8 (16.3)
Weight lbs. (kg)	5.5 (2.5)	15 (6.75)	16 (7.2)	19 (8.55)	44 (19.8)

## TIRVIT

The Tirvit is a **cable and wire rope tensioning** device which is lightweight, easy to handle and compact. The Tirvit is simple to use yet strong. The self-gripping jaws hold the rope:

- ◆ for tensioning electric and telephone cables, conductors and long span lines.
- ◆ for agriculture and forestry, tensioning / netting, stays and fruit support wires, pulling out stakes, uprooting bushes and stirrups, etc...



Model	F2	F3 F3D*	F4
Dia. of wire rope in. (mm)	3/16-3/8 (5-10)	7/16-9/16 (10.5-14)	5/8-13/16 (15-21)
To and fro travel of lever in. (mm)	2.5 (65)	3 (75)	3.5 (90)
Pulling capacity lbs. (kg)	900 (400)	1,300 (600)	1,750 (800)
Weight lbs. (kg)	8 (3.6)	11 (5)	14 (6.3)

\* model with integrated load indicator, accuracy of  $\pm 1\%$



The Dynafor® LLX & LLX-TR load indicating devices have a 1/4t to 250 t capacity. This device is used in construction, inspection, safety organizations, monitoring lifting systems, checking tension or any application where weight or force data is required.

**Compact and lightweight**

- ♦ Strain gauge technology combined with miniature electronics gives instant and accurate digital readout
- ♦ High strength aluminum alloy body gives superior strength

**Features**

- ♦ LCD display
- ♦ Display in mass or force
- ♦ Digital output for data processing
- ♦ Automatic zero when turned on
- ♦ Low battery indicator
- ♦ Tare over full range
- ♦ Overload indicator

**U.S. FCC IDENTIFIER:  
OVL-DYNAFORHHDRX**

**CANADA CERT. NO.:  
36191031952**

LLX-TR allows indicated load or force data to be sent by radio to hand held remote. The remote unit controls the Dynafor® for on/off, tare, perk hold, at a distant of up to 70 ft. (21m) and up to 180 ft. (55m) for data transmission. Unique frequencies available for use of units near one another. See table below for technical specifications.

**LLX series  
.25 - 250 ton**



**LLX-TR model  
with wireless  
remote**



**Technical sheets available**

Models	units	0.25	0.5	1.25	2.5	5	12.5	25	50	100	250
Capacity	lbs. (tons)	500 (0.25)	1,000 (0.5)	2,500 (1.25)	5,000 (2.5)	10,000 (5)	25,000 (12.5)	50,000 (25)	100,000 (50)	200,000 (100)	500,000 (250)
Accuracy	± lbs. (± kg)	1 (0.5)	2 (1)	5 (2.5)	10 (5)	20 (10)	50 (25)	100 (50)	200 (100)	400 (200)	1,000 (500)
Min. display	lbs. (kg)	0.2 (0.1)	0.4 (0.2)	1 (0.5)	2 (1)	4 (2)	10 (5)	20 (10)	40 (20)	100 (50)	200 (100)
Max display	lbs. (tons)	500 (0.25)	1,000 (0.5)	2,500 (1.25)	5,000 (2.5)	10,000 (5)	25,000 (12.5)	50,000 (25)	99,950 (50)	N/A (100)	N/A (250)
Height of digits	in. (mm)	0.7 (18)	0.7 (18)	0.7 (18)	0.7 (18)	0.7 (18)	1 (25)	1 (25)	1 (25)	1 (25)	1.7 (44)
Weight	lbs. (kg)	2.5 (1.1)	2.5 (1.1)	2.5 (1.1)	3 (1.4)	4 (1.98)	8.4 (3.8)	14.5 (6.6)	33 (15.1)	101 (46)	474 (215)
Dimensions (l x w x d)	in. (mm)	75x3.2x2.2 (190x83x56)			8.4x3.2x2.2 (214x83x56)	9.2x3.5x2.2 (234x90x56)	12.2x4.3x2.3 (310x110x58)	14.1x5.3x2.7 (360x134x68)	17x6.5x3.9 (440x164x98)	26x10.2x4.7 (660x260x18)	35.6x16.7x9.8 (905x424x18)

The Dynafor® MWX gives you the possibility to control and measure loads on cranes. It has great work autonomy of up to 700 hours battery life. The MWX, with its LCD readout, programmable functions, and remote display, is ideal for weighing with cranes. Models 2.5 to 12.5 t are available with infrared control and LCD, remote read-out.



**Technical data:**

- ◆ Accuracy: +/- 0.1% of nominal capacity
- ◆ Battery life: 350 hours to 700 hours depending on the model (3x1.5VAA batteries)
- ◆ Weatherproof to IP 65
- ◆ Operating temp: 14°F-122°F (-10°C-50°C)
- ◆ Temp.compensation: automatic zero adjustment when equipment is switched on free of load

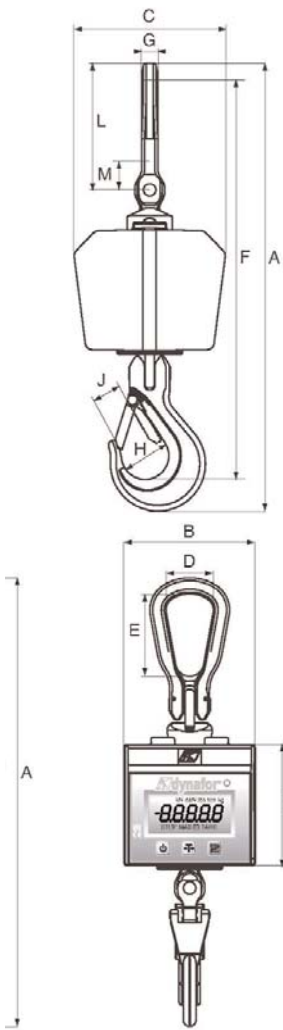
**Features**

- ◆ LCD display
- ◆ Display in mass or force
- ◆ Automatic zero when switched on
- ◆ Tare over full range
- ◆ Peak hold: maximum effort held in memory
- ◆ Low battery indicator
- ◆ Overload indicator
- ◆ Articulate in 2 axis - front to back & side to side



Technical sheets available

Models	units	MWX-0.5	MWX-1	MWX-2	MWX-3.2	MWX-5	MWX-6.3	MWX-12.5	
Capacity	lbs. (tons)	1,000 (0.5)	2,000 (1)	4,000 (2)	6,400 (3.2)	10,000 (5)	12,600 (6.3)	25,000 (12.5)	
Accuracy	± lbs. (± kg)	1 (0.5)	2 (1)	4 (2)	6.4 (3.2)	10 (5)	12.6 (6.3)	25 (12.5)	
Smallest load increment	lbs. (kg)	.4 (.2)	1.1 (.5)	2.2 (1)	2.2 (1)	4.4 (2)	4.4 (2)	11 (5)	
Max display	lbs. (kg)	1,000 (500)	2,000 (1,000)	4,000 (2,000)	6,400 (3,200)	10,000 (5,000)	12,600 (6,300)	25,000 (12,500)	
Height of digits	in. (mm)	1 (25)	1 (25)	1 (25)	1 (25)	1 3/4 (44)	1 3/4 (44)	1 3/4 (44)	
Weight	lbs. (kg)	9.5 (4.3)	9.5 (4.3)	9.5 (4.3)	9.5 (4.3)	19.8 (9)	19.8 (9)	45.1 (20.5)	
Dimensions	A	in. (mm)	18.5 (470)	18.5 (470)	18.5 (470)	18.5 (470)	27.3 (694)	27.3 (694)	35.9 (913)
	B	in. (mm)	5.4 (136)	5.4 (136)	5.4 (136)	5.4 (136)	8.1 (206)	8.1 (206)	8 (203)
	C	in. (mm)	6.3 (160)	6.3 (160)	6.3 (160)	6.3 (160)	8 (203)	8 (203)	8.1 (206)
	D	in. (mm)	2 (50)	2 (50)	2 (50)	2 (50)	3.3 (85)	3.3 (85)	3.9 (98)
	E	in. (mm)	3.4 (87)	3.4 (87)	3.4 (87)	3.4 (87)	5.8 (148)	5.8 (148)	8 (203)
	F	in. (mm)	16.7 (423)	16.7 (423)	16.7 (423)	16.7 (423)	24.4 (620)	24.4 (620)	31.5 (800)
	G	in. (mm)	0.7 (17)	0.7 (17)	0.7 (17)	0.7 (17)	1.1 (27)	1.1 (27)	2.1 (54)
	H	in. (mm)	1.7 (44)	1.7 (44)	1.7 (44)	1.7 (44)	2.8 (71)	2.8 (71)	3.1 (80)
	J	in. (mm)	1.2 (30)	1.2 (30)	1.2 (30)	1.2 (30)	1.6 (41)	1.6 (41)	2.5 (63)
	K	in. (mm)	5 (126)	5 (126)	5 (126)	5 (126)	6.6 (167)	6.6 (167)	6.6 (167)
	M	in. (mm)	0.7 (18)	0.7 (18)	0.7 (18)	0.7 (18)	1 (26)	1 (26)	2 (50)



DYNAFOR®

LOAD MEASURING & LIMITING SAFETY



The Dynafor® LLZ is a compact and economical load indicator built for measuring tensile forces and checking loads. Ideal for monitoring lifting systems, check weighing in factories, for checking tension in power lines and guy ropes, and many other applications. The Dynafor® LLZ displays in lbs. or kg. and offers more than 100 hours of battery life.

**Features :**

- ◆ Instant & accurate digital display
- ◆ Lightweight, compact, strong, weather & dustproof
- ◆ Long battery life, up to 100 hours
- ◆ Overload indicator
- ◆ High overload coefficient 2:1
- ◆ Display in mass or force

**Applications :**

- ◆ monitoring lifting systems
- ◆ test bench
- ◆ checking data input & output in factories
- ◆ checking tension in power lines and guy ropes
- ◆ checking the pulling capacity of trawler

Model	unit	0.25	0.5	1	2	3.2	6.4	10	20	
Capacity	lbs. (T)	550 (0.25)	1,100 (0.5)	2,200 (1)	4,400 (2)	7,000 (3.2)	14,000 (6.4)	22,000 (10)	44,000 (20)	
Accuracy (0.8%)	±lbs. (±daN)	4 (2)	8 (4)	16 (8)	30 (15)	50 (25)	100 (50)	160 (80)	300 (150)	
Height of Digits	in (mm)	3/4 (18)	3/4 (18)	3/4 (18)	3/4 (18)	3/4 (18)	3/4 (18)	3/4 (18)	3/4 (18)	
Weight	lbs. (kg)	2.4 (1.1)	2.4 (1.1)	2.4 (1.1)	2.9 (1.3)	3.3 (1.5)	5.1 (2.3)	8.8 (4)	15.5 (7)	
Smallest readout	lbs. (kg)	1 (0.5)	1 (0.5)	5 (2.5)	10 (5)	10 (5)	20 (10)	50 (25)	100 (50)	
Maximum display	lbs. (daN)	550 (275)	550 (275)	2,200 (1,100)	4,400 (2,200)	7,000 (3,500)	14,000 (7,000)	22,000 (12,000)	40,000 (20,000)	
Dimensions h x w x d	in. (mm)	8.7x3.5x1.7 (220x90x42)			8.7x3.5x1.9 (220x90x48)		9.6x3.8x1.9 (243x97x48)		12.8x4.33x2.44 (376x110x62)	

HANDIFOR® - COMPACT WEIGHER

The lightweight, compact and ergonomic Handifor® is built for measuring small forces or loads. Specially designed for difficult load checking conditions, the Handifor® will measure the weight of your packages, dispatch bags, courier, materials in laboratories and many other materials that need weighing.

**Features :**

- ◆ digital display, instant and accurate
- ◆ lightweight, compact and ergonomic design
- ◆ ideal for difficult load checking conditions
- ◆ supplied in a pocket cover with belt attachment, batteries and anchor hooks

**Appreciate the Handifor® for:**

- ◆ check weighing packages (dispatch, courier...)
- ◆ check weighing for hunting and fishing
- ◆ measuring materials in laboratories
- ◆ checking loads in industry, repair, and maintenance workshops



Models	units	20 kg	50 kg	100 kg
Capacity	lbs. (daN)	44 (20)	110 (50)	220 (100)
Accuracy (0.8%)	±lbs. (±kg)	0.5 (0.2)	1 (0.4)	2 (0.8)
Height of Digits	in (mm)	0.53 (13.5)	0.53 (13.5)	0.53 (13.5)
Weight	lbs. (kg)	0.5 (0.22)	0.5 (0.22)	0.5 (0.22)
Smallest readout	lbs. (kg)	0.2 (0.1)	0.4 (0.2)	1 (0.5)
Maximum display	lbs. (kg)	44 (20)	110 (50)	220 (100)
Dimensions h x w x d	in. (mm)	5.51 x 3.15 x 1.57 (140 x 80 x 40)		



The Dynarope has been designed for measuring forces in pretensioned wire ropes (guys, aerials, pylons and masts, supports, catenaries and all textiles ropes or wire ropes) that cannot be dismantled and for which tension must be known or confirmed. It fits directly onto the tensioned wire rope and is simply held in position by turning a handle. This device is comprised of a load cell with strain gauges and a display driven by a micro-processor. Display of the force measured by the load cell takes into account parameters you enter such as the diameter, composition and structure of the rope.

The Dynarope can be programmed to accuracy within a margin of  $\pm 1\%$ .

◆ **Numeric display:**

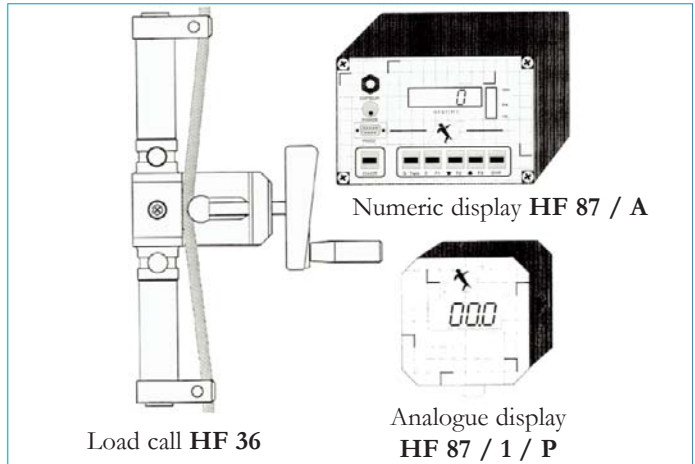
Digital technology allows the **Dynarope** to contain an extremely large database of rope types and sizes. When in “special” operation, the user may create his own database as a function of specific parameters.

◆ **Analog display:**

Simple and economical model for repetitive measuring operations and/or for balancing effort in identical wire ropes.

◆ **Quick fitting and removal operations:**

For repetitive measuring operations, a simple mechanical lever replaces the threaded handle.



DYNAROPE

LOAD MEASURING & LIMITING SAFETY

Technical sheets available		cells			monitors	
Model	UNITS	HF 36/1	HF 36/2*	HF 36/3	HF 87/1/P	HF 87/A
Dia. of Wire Rope	in. (mm)	3/16" to 1/2" (4 to 13)	3/8" to 1 1/4" (9 to 28)	7/8" to 1 3/4" (20 to 44)	◆	◆
Capacities	tons (Kn)	5.5 (50)	22 (200)	40 (365)	◆	◆
Length	in. (mm)	14.6 (370)	19.7 (500)	31.5 (800)	◆	◆
Weight	lbs. (kg)	4.4 (2)	8.8 (4)	43 (19.5)	2.2 (1)	.66 (.3)

\* US model only

The wide variety of wire rope lifting systems requires an equivalent range of overload limiters. The applications are extremely varied, from simply stopping the systems where the load exceeds the maximum capacity to a “black box” system which memorizes all the parameters of the load. Overloads and operating coefficients in accordance with the standards 9.522 and 9.755 set out by the F.E.M.

**Mechanical Solutions**

no monitor required



**HF 32**  
On-line



**HF 05**  
In line

Two types are available:

**Mechanical Load Cells** ~ Based on the use of microswitches giving an “all-or-nothing” signal to detect the movement within the elastic limits of the specially treated metal, under the effect of an increasing load.

Among these load cells there are:

- ◆ Load cells fitted onto the wire rope avoiding the need to dismantle the lifting system. The deviation of the wire rope around the load cell produces a force proportional to the force transmitted through the wire rope.
- ◆ Load cell attached to a fixed point between the end of the wire rope and its original anchor point. In this case the load cell is subjected to the effects at the dead-end of wire rope.

**Electronic Solutions**



**HF 35**  
On-line



**HF 10**  
In line

**Electronic load cell** ~ Fitted with strain gauges which measure the movement of the load cell giving an electrical signal relative to the load applied.

- ◆ Load cells fitted onto the wire rope avoiding the need to dismantle the lifting systems. The deviation of the wire rope around the load cell produces a force proportional to the force transmitted through the wire rope (not suitable for weight displays).
- ◆ Load cells attached to a fixed point between the end of the wire rope and its original anchor point.
- ◆ Dynamometric load axles which are specially manufactured to replace the original axles (best choice for weight display).
- ◆ Special load cells such as S-shaped load cells, compression washers, extensionmeters, or custom-made load cells on request.



**HF 55** Shackles



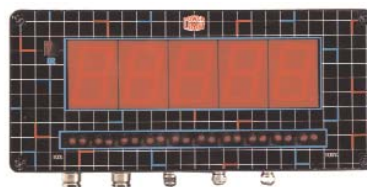
**HF 50** Axles



**HF 85**

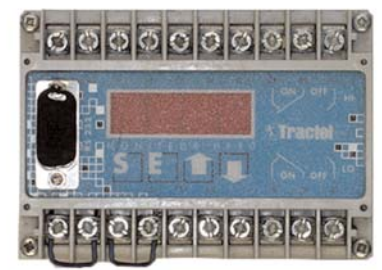
Option: Monitors for dynamic effects control

**Monitors**



**HF 87**

Display “Black Box”



**HF 80**

Monitors “Black Box”

The Dynasafe® load limiter, model HF32, is a mechanical device that has been **designed particularly for fitting to existing overhead cranes and hoists with a dead end wire rope and connecting directly into the UP function of the lifting system.** It is a simple device with a microswitch to allow for certain dynamic effects and which, when correctly adjusted, will prevent an overload condition of the lifting system.

**Application:**

This mechanical load cell has been designed to provide a trip point for lifting systems which have a dead end wire rope. The trip point provides a signal that the user may employ depending on his requirements, e.g.:

- ◆ for load limiting in lifting systems
- ◆ to limit the speed as a function of the load on traversing
- ◆ to limit the effort applied for pulling

This UNIVERSAL load cell is recommended for its simplicity and quick-fitting capability.

**Operating principle**

The load cell operates by the movement of metal within its elastic limits. This movement acts on an adjustable switch giving an “all-or-nothing” signal. The position of the adjustable pin sets the capacity range. The central “UNIVERSAL” fixing bracket is adapted to suit wire ropes from 5 to 16 mm (model HF 32/1), 17 to 26 mm (model HF 32/2), and from 27 to 36 mm (model HF 36/3) Full details may be found in the installation manual. The effort applied through the wire rope “deforms” the body of the load cell creating a difference in the relative positions of the two sections. This operates a microswitch which may be wired directly into the UP relay of the lifting control to prevent an overload condition.

**Technical sheets available**

Model	Unit	HF 32/1/A	HF 32/2/A	HF 32/3/A
Code		0420600	0420601	0420602
Dia of wire rope	in. (mm)	3/16 - 5/8 (5 - 16)	11/16 - 1 (17 - 26)	1 1/16 - 1 3/8 (27 - 36)
Single line capacity	lbs. (kg)	550 - 6,600 (250-3,000)	600 - 13,000 (300-6,000)	2,000 - 26,000 (1,000-12,000)
A	in. (mm)	5.9 (150)	7.9 (200)	11 (280)
B	in. (mm)	2.75 (70)	3.9 (98)	5.43 (138)
Depth	in. (mm)	11 (276)	5.43 (138)	2.36 (60)

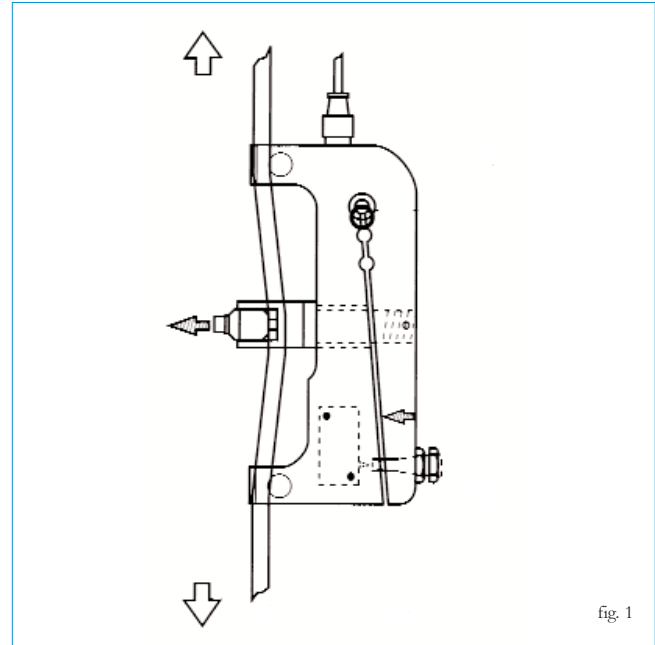


Fig. 1 - HF 32 “universal” load cell Operating principle

Complies with ANSI/ASME HST-4M overload limiting device

Special versions are available for smaller capacities, dynamic filtering, dual trip points and explosive atmospheres.

Max. capacity	HF 32/1/A: 6,600 lbs on a single fall HF 32/2/A: 13,000 lbs on a single fall HF 32/3/A: 26,000 lbs on a single fall
Adjustment:	Fine-Thread Screw
Measuring cell:	Microswitch
Trip point power	4A/220 Vac 0.5/220 Vdc
Repeatability of cut out:	+/- 5%
Temperature range:	From -30° C to + 80° C
Connections:	3 Conductor (NO,NC) (6 ft lead supplied)
Material:	Anodized, Aircraft grade aluminum
Protection class	IP55

## BLOCMAT - FALL ARRESTERS

### BLOCMAT S 500



The load arrester Bloclmat has been designed to **secure suspended loads**. Should the load fall down, then the BLOCMAT will hold the load in suspension.

#### BLOCMAT S Series

- ◆ Capacity: 1,100, 1,800, and 2,200 lbs. (500, 800, and 1,000 kg)
- ◆ Wire rope length: 25 to 80 ft. (8 to 25 m) depending on model
- ◆ Suspended version: Bloclmat S
- ◆ Ground fixing version: Bloclmat SI

### BLOCMAT BS 250



- Limited fall arrest (distance less than 4 in.)
- 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 Series

The Bloclmat BS 250 is a retractable load arrester, with a 550 lbs. (250 kg) capacity and 50 ft (15m) of wire rope. The length of the wire rope is adjusted automatically by a tensioning and retraction system. The locking function is provided by two catches which engage in a ratchet wheel by the operation of centrifugal force caused by the acceleration of the load. The function which absorbs the shock when the load is stopped is proved by a multi disc braking system

## BLOCSTOP® - SAFETY DEVICE FOR WIRE ROPE

The Blocstop® is a **fall-arrest secondary safety device** which, when fitted to an appropriate Tirfor® wire rope. The Blocstop® is particularly well suited as a safety device on suspended cradles and platforms. It may also be used to hold or restrain any other loads during lifting and pulling applications.

The Blocstop® may be used:

- ◆ Mounted on a separate safety wire rope if required by safety regulations for suspended scaffolding and platforms. The Blocstop® holds the load safely should there be any defect in the suspension wire rope or malfunction of the lifting machine.
- ◆ Mounted on the suspension or tensioned wire rope, the Blocstop® protects the load against malfunction of the lifting/tensioning device.



Models	units	BS 15.301	BS 20.301	BS 35.30
Capacity	lbs. (kg)	1,500 (800)	3,000 (1,600)	6,000 (3,200)
Weight	lbs. (kg)	5 (2)	9 (3.7)	20 (8.7)
Wire rope dia.	in (mm)	5/16 (8.3)	7/16 (11.5)	5/8 (16.3)

**ADVANTAGES**

- ◆ Pioneer pallet trucks are strong, safe and easy to use
- ◆ Control lever with three positions (lift, neutral, lower)
- ◆ P.U. (polyurethane) steering wheels and rollers requiring minimum effort to move
- ◆ Bearing greased for life
- ◆ High duty hydraulic pump with chromium-plated piston



**DESCRIPTION**

- ◆ The steering wheels and fork rollers have a polyurethane tread giving a good load capacity and requiring minimum effort to move
- ◆ The hydraulic pump control lever has three positions (lift - neutral - lower) and is well protected inside the rounded handle of the steering column which automatically returns to the vertical when released.
- ◆ Mechanical stop to protect the pump from overloading
- ◆ The complete frame is protected by a double coating of acrylic paint applied after sand blast treatment.

PIONEER

FLOOR HANDLING

Model	WLL	Minimum height of lift	Maximum height of lift	Fork length	Overall width	Weight	Steering wheels diameter	Fork rollers diameter
Pioneer	5,500 lbs. (2,495 kg)	2 7/8 in. (73mm)	7 3/4 in. (197 mm)	48 in. (1,220 mm)	27 in. (685 mm)	187 lbs. (85 kg)	7 in. (178 mm)	3 1/4 (83 mm)
Pioneer XL	3,300 lbs. (1,500 kg)	2 7/8 in. (73mm)	7 3/4 in. (197 mm)	96 in. (2,438 mm)	27 in. (685 mm)	210 lbs. (95 kg)	7 in. (178 mm)	3 1/4 (83 mm)

The Pakrol heavy equipment dollies range has been **designed to handle and move heavy and rigid loads** manually on a flat resistant floor.

**ADVANTAGES**

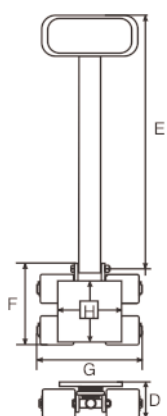
- ◆ Rugged frame.
- ◆ Minimum maintenance.
- ◆ Nylon or Polyurethane wheels with ball bearing
- ◆ Handle for transport.
- ◆ Trolley skate load plate with thrust bearings.

**DESCRIPTION**

To offer the best stability of the load and make its guiding easier, we recommend to share the load surface on **2 skates and 1 trolley skate**. (refer to the undermentioned sketch) for use with Top or Hydrofor

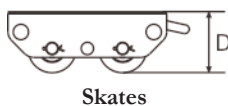


PAKROL

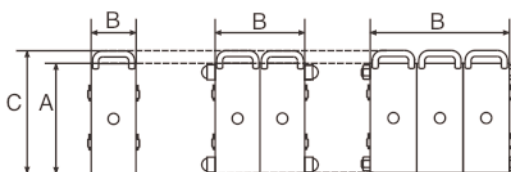
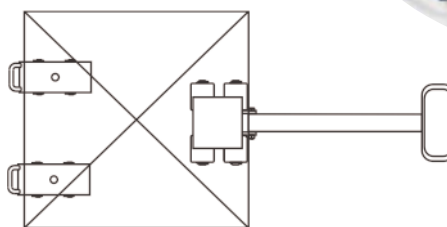


**Trolley Skates**  
8 wheels  
WLL = 6/8 t

Total load	Trolley skate	Skate
8 t	4 t + 2 x 2 t	
12 t	4 t + 2 x 4 t	
14 t	6 t + 2 x 4 t	
18 t	6 t + 2 x 6 t	
20 t	8 t + 2 x 6 t	

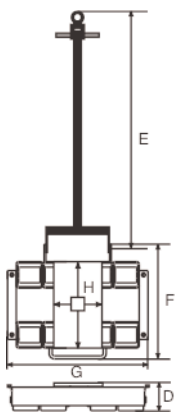


**Skates**



Technical sheets available

Model	Skate 2 t	Skate 4 t	Skate 6 t	Trolley skate 4 t	Trolley skate 6/8 t	
W.L.L.						
Weight lbs. (kg)	11 (5)	24 (24)	55 (25)	31 (14)	110 (50)	
Operating temperature range F (C)	14° - 86° (-10° - 30°)					
Dimensions in. (mm)	A	10.6 (270)	10.6 (270)	10.6 (270)	-	-
	B	4.2 (106)	9.1 (232)	13.7 (348)	-	-
	C	12.1 (308)	12.1 (308)	12.1 (308)	-	-
	D	4.3 (110)	4.3 (110)	4.3 (110)	4.3 (110)	4.3 (110)
	E	-	-	-	37 (940)	47.2 (1200)
	F	-	-	-	9 (230)	20.9 (530)
	G	-	-	-	11.7 (297)	25.2 (640)
	H	-	-	-	5.7 x 7.1 (145 x 180)	15.7 x 8.7 (400 x 220)



**Trolley Skates**  
8 wheels  
WLL = 6/8 t

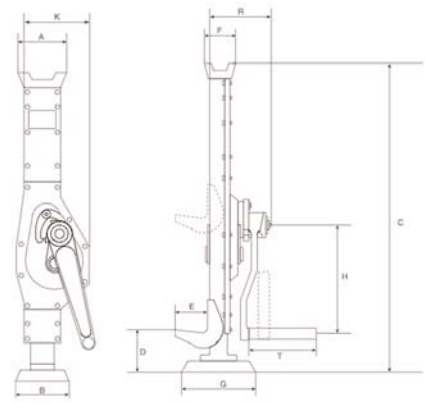
FLOOR HANDLING

## TOP - RACK JACK

The "Top" rack jack is operated by a crank handle. Lifting is controlled by a crank operating through a ratchet wheel with a double retaining catch, giving the jack additional safety. Lowering is by a locked ratchet, holding the load by friction discs.

### Advantage :

- ◆ Heavy duty constructions.
- ◆ Full Working Load Limit can be applied to head or toe.
- ◆ The gear wheels, the pinions and the rack are made of heat treated steel.
- ◆ The folding handle of the crank reduces the overall dimension of the jack during transport.
- ◆ Handles for transport are available on all models.



Technical sheets available



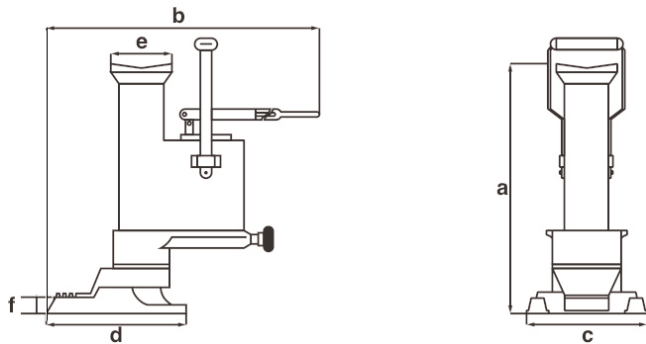
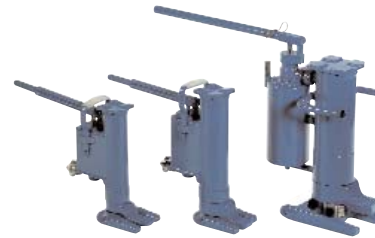
Model	W.L.L. (ton)		Lift in. (mm)	Effort on handle lbs. (dan)	Weight lbs. (kg)	Dimensions (mm)										
	On head	On toe				A	B	C MIN	D MIN	E	F	G	H	K	R	T
BT 1.5	1.5	1.5	11.8 (300)	67 (30)	40 (18)	81	100	600	70	55	46	110	225	147	119	113
BT 3	3	3	14 (355)	77 (35)	44 (20)	83	130	735	70	60	45	138	249	168	129	130
BT 5	5	5	13.6 (345)	88 (40)	62 (28)	108	140	735	80	71	68	170	249	190	146	130
BT 10	10	10	15.3 (390)	128 (56)	128 (58)	124	140	800	100	86	76	170	300	250	168	239

## HYDROFOR - HYDRAULIC TOE JACK

The Hydrofor jack is a manually operated single block hydraulic ram with a protecting lifting toe. Operating the lever will lift the load when the release button is closed. By turning smoothly this button counter clockwise, the load will be controlled downward. The load can be handled either by the toe or by the jack head.

### Advantage :

- ◆ Versatile operation for various applications, even horizontally.
- ◆ Full lifting capacity on toe and head for efficient high and low lifts
- ◆ Pressure limit device prevents overload for safe operation
- ◆ Screw release valve for easy and controlled lowering.
- ◆ 360 degree swivel for ease of positioning
- ◆ High quality hydraulics for heavy duty operation



Model	unit	5t	10t	20t	
Capacity	t	5	10	20	
Travel of ram	g	in. (mm)	8.1 (205)	9.4 (240)	8.7 (220)
Travel of toe	min./max.	in. (mm)	1-9.1 (25-230)	1-10.4 (25-265)	1.6-10.2 (40-260)
Travel of head	min./max.	in. (mm)	14.2-22.2 (360-565)	16.4-25.9 (417-657)	17.3-26 (440-660)
Dimensions	a	in. (mm)	14.2 (360)	16.4 (417)	17.3 (440)
	b	in. (mm)	21.3 (540)	21.3 (540)	33.5 (850)
	c x d	in. (mm)	5.1 x 8.3 (130 x 210)	5.1 x 8.3 (130 x 210)	7.1 x 10.1 (180 x 275)
	e	in. (mm)	3.1 (80)	3.1 (80)	5.1 (130)
	f	in. (mm)	1 (25)	1 (25)	1.6 (40)
	Effort on lever	Lb <sub>f</sub> (N)	100 (450)	112 (500)	100 (450)
Weight	lbs. (kg)	40 (18)	55 (25)	114 (52)	

# Fallstop® Protection

Tractel®, Fallstop® Division, offers a complete fall protection system, from full body harnesses and lanyards to patented devices such as the Travsafe® lifeline system, the Blocfor® selfretracting lifeline and the Stopfor® rope grabs. Our equipment is engineered and manufactured to meet and exceed the highest standards in the industry. **CALL: (800) 514-3332 for more information**



## Access® Equipment

Tractel®, Griphoist® Division offers a complete line of man-riding equipment products, including the Tirak® series traction hoist, Blocstop® secondary brake, Scafor® manual hoist, Skysafe® modular platforms, Skybeam® suspension systems, Portafix® suspension systems, and much more. For more information or specification on any one of these products, please contact a customer service representative. **CALL: (800) 421-0246 for more information**



## Training Solutions

Tractel® Training Solutions specializes in insuring your workers will work safely and efficiently. Our specialists offer training seminars in fall protection, material handling equipment as well as access and building maintenance systems use and maintenance. **CALL: (800) 561-3229 for more information**

### In the United States

**Boston**  
**1 800 421-0246**  
110 Shawmut Rd.  
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