Technical Specifications
LIFTRONIC L04

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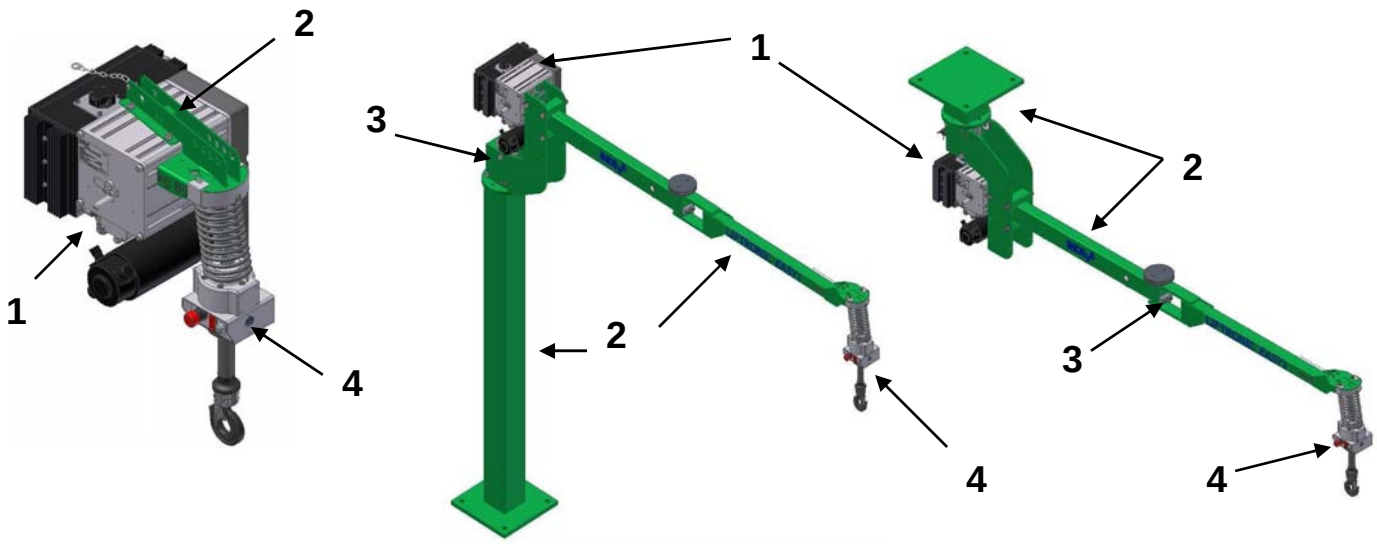
create: 10/11/2007 by ag update: 22/02/2008

MODELS AND APPLICATIONS:

R (Rail) **C (Column)** **S (Ceiling)**



1. **Balancer**
2. **Structure**
3. **Accessories (brakes, blocks, sensors, ecc.)**
4. **Tool Head**

Balancer characteristics

	L80	L125	L160	L240	L320
Load capacity * (kg)	80	125	160	240	320
Load cap. with duty-cycle 100% (kg)	45	70	90	135	180
Load cap. with duty-cycle 50% (kg)	63	98	126	189	252
Speed (m/s)	0.6	0.375	0.3	0.2	0.15
Vertical stroke max (m)	3.0	2.8	2.8	1.87	1.42
Power supply	230 Volt A/C - 50 / 60 Hz (optional 115 V)				
Power consumption	700 VA				
Enclosure protection	IP 54 (optional IP55)				
Max working temperature	0 to 40 ℃				
Max noise level	40 dB (A)				
Max rope fleet angle	15°				
Max. rotation tool axes	+/- 2.5 turns				

* Max load cap depends on tool weight and duty cycle

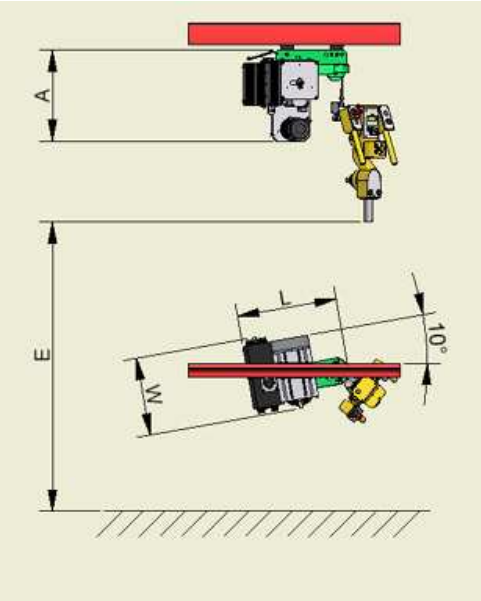
Attention: in standing still status, with the "STOP" button NOT pressed, the equipment is considered to be working as far as the "duty-cycle" rating is concerned. Scaglia INDEVA Spa can let you have a specific duty cycle rating through the excel sheet: IITmotoreEASY.xls

General information:

- **Balancing type:** load preset or self balancing (it depends from the tooling)
- **Standard colours:** balancer > aluminium / feeder > black
- **Min. lighting conditions within the working area**: 300 - 600 lux
- **Relative humidity rate:** 30% to 90% +/- 5%
- **Applicable standards:**
  European safety standards 98/37/CE (Machinery Directive)
  Safety requirement in directive 73/23/CEE (Low voltage)
  Safety requirement in directive 89/336/CEE (Electro-magnetic compatibility)
  Noise level measuring: DIN 45635
  Design standards: CNR 10021/85 (Steel structures for lifting equipment), CNR 10011/86 (Steel products), CNR 10028/85 (Aluminium alloy structures for lifting equipment),CNR 10029/87 (High-resistance steel products) UNI 7670, UNI 7278, DIN 4114, ISO 4304, DIN 1054, FEM/I-12-1970

- **Safeties: (with tool head)**
  The system stops automatically in case of a breakage in the spiral cable.
  The system stops automatically in case of a breakage in the transmission belt.
  The upstroke and descent lifting speed is electronically controlled.
  Alarm message on the display of the tooling in case of:
  - Motor temperature>85°
  - Power supply unit temperature >70°
  - Temperature of feeding resistance >80°
  - Max time with load hanging exceeded (see duty-cycle)
  - Faulty connection between tool head and power supply unit
  - Motor brush disconnected or faulty wiring
  - Fault in the control p.c. board of the tool head
  - Faulty wiring of the break resistance
  - Wrong utilisation "Float-Mode" function.

RAIL MOUNTED LIFTRONIC:



	MODEL				
	L80R	**L125R**	**L160R**	**L240R**	**L320R**
Load capacity * (kg)	**80**	**125**	**160**	**240**	**320**
Speed (m/s)	**0.6**	**0.375**	**0.3**	**0.2**	**0.15**
Vertical stroke E (m)	**3.3**	**2.8**	**2.8**	**1.87**	**1.42**
Dimension A (mm)	**430**	**430**	**430**	**430**	**455**
Dimension L (mm)	**470**				
Dimension W (mm)	**370**				
Weight (not tool) (kg)	**35**	**40**	**40**	**42**	**45**

* Max load capacity depends on tool weight and duty cicle

For balancer general characteristics please see CAT100

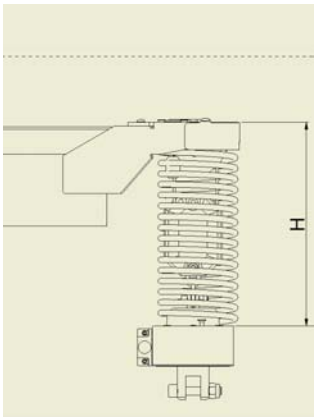
Max. mounting height: 4m (floor to lower rail profile). Within the limit of 4m, in operation of the least useful dimension "E", for the models E125/160/240/320, can be necessary to insert a piece of chain. Major heights of 4m will be achievable by using special extensions (with electric cable) .

Standard rail profile: Demag KBK I / IIL / II

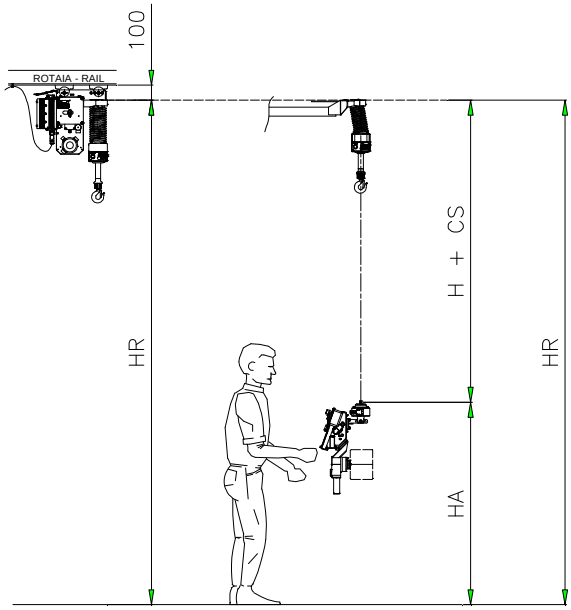
Special configurations:

- ❑ Special painting (standard: green RAL 6018)
- ❑ Neutral label (not Indeva)

BALANCER HEIGHT IDENTIFICATION



VERSION	H (mm)
SINGLE ROPE	220
DOUBLE ROPE	280
THREE ROPES	400
FOUR ROPE	450



H = minimum height of the packaged spiral cable

HA = minimum working height

HR = HA + H + CS = height of the rope pulley

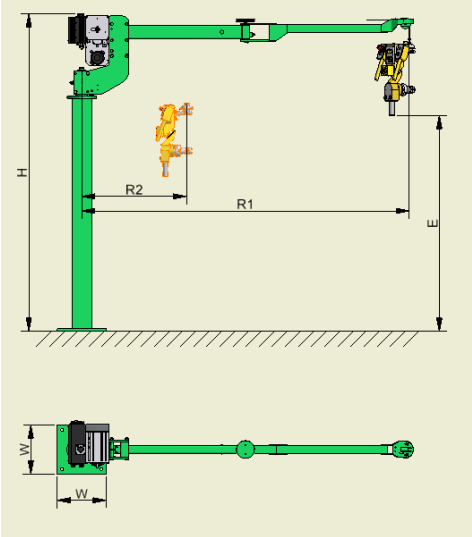
CS = maximum stroke of spiral cable (3.3 Mt)

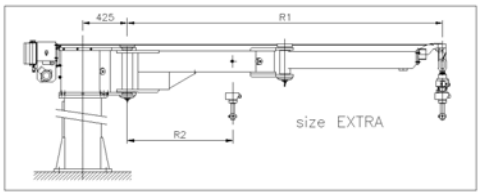
IDENTIFICATIONS OF HR MAX

For Easy:
Without the use a rope extension, with the hook on the floor level, HR=3900mm (4000mm for rail solutions)
The HR quote should be higher if the hook doesn't need to reach floor.

For Liftronic:
HR quote depends from the HA quote.
This last quote depends from the tooling dimensions.
It's always possible to add a rope extension in order to increase HR quote. (see SCH182)

LIFTRONIC ON ARM AND COLUMN MOUNTED:





tab.1	MODEL				
	L80CL	**L125CH**	**L160CH**	**L240CX**	**L320CX**
Load capacity * (kg)	**80**	**125**	**160**	**240**	**320**
Speed (m/s)	**0.6**	**0.375**	**0.3**	**0.2**	**0.15**
Vertical stroke E (m)	**3.0**	**2.8**	**2.8**	**1.87**	**1.42**
Dimension R1 (mm)	**2500**	**3000**	**3000**	**3500**	**3500**
Dimension R2 (mm)	**450**	**760**	**760**	**1005**	**1005**
Dimension H (mm)	**2430**	**2660**	**2660**	**2920**	**2920**
Dimension W (mm)	**375**	**500**	**500**	**550**	**550**
Structure size	**Light**	**Heavy**	**Heavy**	**Extra**	**Extra**
Max. slewing angle (degrees)	**375°**	**360°**	**360°**	**270°**	**270°**
Weight (not tool) (kg)	**165**	**290**	**290**	**610**	**610**

* Max load cap depends on tool weight and duty cycle

For balancer general characteristic please see CAT100

Table showing alternative standard arms (different to arms explained in the above mentioned table 1)

tab.2			Arm Length R1 (m)				
			2.5	3	3.5	4	4.5
structure	L = Light	kg	80	60	40	-	-
		R2 (mm)	450	550	650	-	-
	H = Heavy	kg	260	190	140	105	78
		R2 (mm)	630	760	880	1020	1140
	X = Extra	kg	-	320	320	280	220
		R2 (mm)	-	860	1005	1150	1300

Column dimension tab.

Tab.3	Structure		
	Light	Heavy	Extra
Height max (mm)	2800	3000	3000
Height standard (mm)	1800	2000	2400
Holes for bolts	4 x Ø25 Center to center distance 300x300	4 x Ø25 Center to center distance 425x425	4 x Ø40 Center to center distance 450x450
Holes for chemical bolts	4 x Ø14 Center to center distance 300x300	4 x Ø18 Center to center distance 425x425	4 x Ø28 Center to center distance 450x450

For easy three ropes, on extra structure and standard column, the hook doesn't reach floor (200 mm upon).
In the case the floor has to be reached, add a rope extension (SCH182).
In order to reach higher height, use a 200mm column with the necessary extension.

Special configurations:

- ❑ Special painting (standard: green RAL 6018)
- ❑ Neutral label (not Indeva)
- ❑ Arm Length
- ❑ Column height

CHART FOR BALANCER SELECTION- ARMS COMBINATION

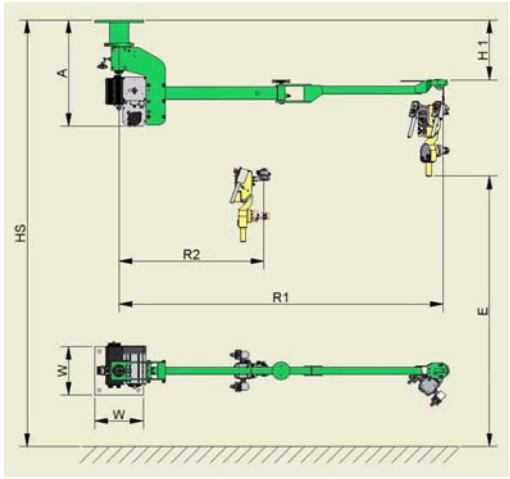
The choice between different balancers with the same arm length and the same load capacity, it depends from the “duty cycle”

		STRUCTURE																								
		LIGHT							HEAVY											EXTRA						
Arms length		**2.00**	**2.25**	**2.50**	**2.75**	**3.00**	**3.25**	**3.50**	**2.00**	**2.25**	**2.50**	**2.75**	**3.00**	**3.25**	**3.50**	**3.75**	**4.00**	**4.25**	**4.50**	**3.00**	**3.25**	**3.50**	**3.75**	**4.00**	**4.25**	**4.50**
Balancer	**Balancer capacity (kg)**																									
Single rope	**80**				70	60	50	40											78	-	-	-	-	-	-	
Double rope	**125**	100	90	80	70	60	50	-								120	105	90	78	-	-	-				
	160	100	90	80	-	-	-	-							140	120	105	90	-	-	-					
Three ropes	**190**	100	-	-	-	-	-	-						160	140	120	105	-	-	-						
	240	-	-	-	-	-	-	-				220	190	160	140	120	-	-	-							220
Four ropes	**320**	-	-	-	-	-	-	-		295	260	220	190	160	-	-	-	-	-				310	280	250	220

	The capacity of Arm, satisfies the Balancer capacity
	The Balancer capacity is declassed for the arm capacity
-	Not available

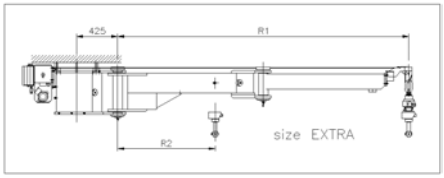
SCAGLIA INDEVA S.p.A. Italy www.indevagroup.com	**LIFTRONIC** **Technical Specification** **Structure "S" (Ceiling)**	File created on 08/10/2007 Updated 20/10/2008

LIFTRONIC ON CEILING ARM MOUNTED:



tab.1	MODEL				
	L80SL	**L125SH**	**L160SH**	**L240SX**	**L320SX**
Load capacity * (kg)	**80**	**125**	**160**	**240**	**320**
Speed (m/s)	**0.6**	**0.375**	**0.3**	**0.2**	**0.15**
Vertical stroke E (m)	**3.0**	**2.8**	**2.8**	**1.87**	**1.42**
Dimension R1 (mm)	**2500**	**3000**	**3000**	**3500**	**3500**
Dimension R2 (mm)	**450**	**760**	**760**	**1005**	**1005**
Dimension A (mm)	**820**	**820**	**820**	**650**	**650**
Dimension W (mm)	**375**	**500**	**500**	**450**	**450**
Structure size	**Light**	**Heavy**	**Heavy**	**Extra**	**Extra**
Max. slewing angle (degrees)	**360°**	**360°**	**360°**	**270°**	**270°**
Weight (not tool) (kg)	**165**	**245**	**245**	**345**	**345**

* Max load capacity depends on tool weight and duty cycle



For balancer general characteristics please see CAT100

Table showing alternative standard arms (different to arms explained in the above mentioned table 1)

tab.2			Arm Length R1 (m)				
			2.5	3	3.5	4	4.5
structure	L = Light	kg	80	60	40	-	-
		R2 (mm)	450	550	650	-	-
	H = Heavy	kg	260	190	150	105	78
		R2 (mm)	630	760	880	1020	1140
	X = extra	kg	-	320	320	280	220
		R2 (mm)	-	860	1005	1150	1300

Column dimension tab.

Tab.3	Structure		
	Light	Heavy	Extra
Height column (mm)	200	200	-
Bolts	4 x M16 distance between centers 300x300	4 x M16 distance between centers 425x425	6 x M16 distance between centers 400x400

During the evaluation of the lifting system height, please consider the max. vertical stroke of the balancer

IDENTIFICATIONS OF SUPPORT, CARPENTRY O LIFT-TRUCK

(See also SPC100)

ATTENTION:

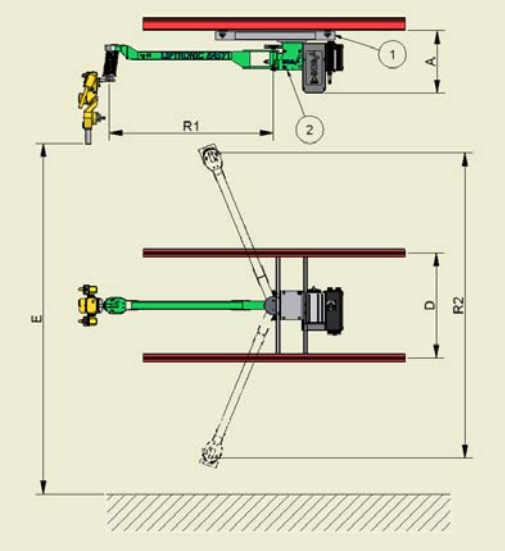
If HS quote is less than 280cm, it's necessary to evaluate the risk of impacts with the operator.
For heights major than 280cm, it's necessary to evaluate the possibility to add a rope mechanical extension. (see HR on SPC100)
HS=HR+H1
For Easy HS max=3900mm+H1. For higher HS, it's necessary to add a column extension. (SCH121)

Special configurations:

- ❑ Special painting (standard: green RAL 6018)
- ❑ Neutral label (not Indeva)
- ❑ Arm Length

LIFTRONIC WITH SINGLE ARM RAIL MOUNTED:

1. Trolley
2. Structure (single arm)



tab.1	MODEL
	L80M
Load capacity * (kg)	80
Speed (m/s)	0.6
Vertical stroke E (m)	3.0
Dimension R1 (mm)	1250
Dimension R2 (mm)	2240
Dimension A (mm)	475
Rail distance D (mm)	800
Structure size	Light
Weight (not tool) (kg)	165

* Max load capacity depends on tool weight and duty cycle

Standard rail profile: Demag KBK I

For balancer general characteristics please see CAT100

Table showing alternative standard arms (different to arms explained in the above mentioned table 1)

		Arm length R1 (m)			
		0.8	1	1.25	1.5
Light size	Capacity (kg)	130	100	80	60
	R2 (mm)	1435	1790	2240	2690

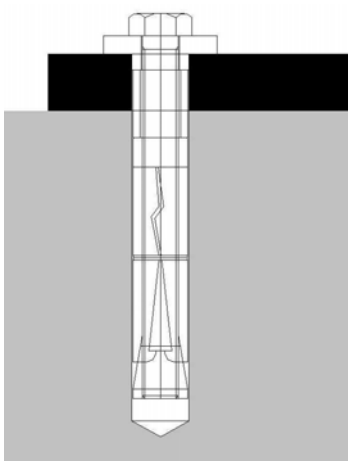
Special configurations:

- ❑ Special painting (standard: green RAL 6018)
- ❑ Neutral label (not Indeva)
- ❑ Arm Length

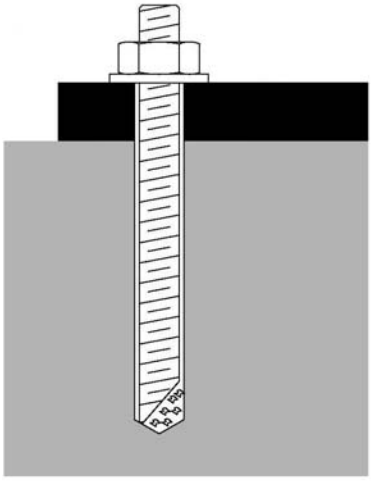
FLOOR PLUGS AND BASE PLATFORMS

FLOOR PLUGS FOR FASTENING THE COLUMN TO THE FLOOR

EXPANSIVE FLOOR PLUG



CHEMICAL FLOOR PLUG



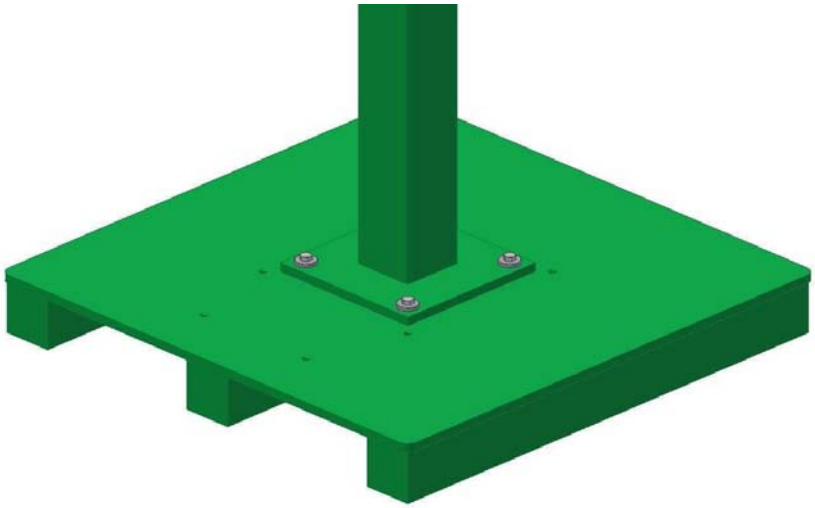
LIFTRONIC VERSION	dimension plate (mm)	Max. pressure on the floor (N/cm^2)	Pull max. (daN)
Light Size *(80daN x 2,5m = 200daN·m)**	375 x 375	91	500
Heavy Size *(160daN x 3,25m = 520daN·m)**	500 x 500	110	830
Extra Size *(310daN x 3,75m = 1162daN·m)**	550 x 550	192	2010

	FLOOR PLUG				
	EXPANSIVE		CHEMICAL		
Size	**Light - Heavy**	**Extra**	**Light**	**Heavy**	**Extra**
Code	D21 0217 01P	D21 0217 04P	5MMTSF07 cartridge 5MMTSB07 threaded bar	5MMTSF07 cartridge 5MMTSB04 threaded bar	5MMTSF07 cartridge 5MMTSB02 threaded bar
Screw type	M16	M24	M12	M16	M24
Length (mm)	160	255	110	125	210
Drilling diameter (mm)	25	40	14	18	28
Max. possible pull (daN) (resistant to 20Mpa*)	1200	2800	1200	1530	3240
Minimum pitch required between holes (mm)	300	430	220	250	420
Max tightening torque (N*m)	120	400	50	100	240
Min. concrete thickness required (mm)	175	280	140	170	270

* Minimum concrete resistant required.

STEEL BASE PLATFORM

- Enables to move the system into different working areas
- Avoids drilling the floor
- Provides a free-standing, mobile workstation
- Transportable by fork lift truck



STRUCTURE SIZE		CODE	WEIGHT (Kg)	DIMENSION (mm)
LIGHT		D21213200	630	1200x1200x140
HEAVY	SINGLE ROPE L ARM max = 3.25mt	D21213200	630	1200x1200x140
	DOUBLE ROPE	D21213203	850	1500x1500x140
	THREE ROPES	D21213202	1030	1500X1500X150
EXTRA		Not available		

Screws and washers for fastening the platform to the column are included in the supply.