

## SECTION 1 - GENERAL DATA

### DESCRIPTION

Aluminium gantry crane (ASB/LSB series) is a complete, lightweight, fully customizable (modular design), portable and flexible device designed to be used in variety of lifting applications such as, drainage wells, reservoirs, wells, silos, rooftop, lift-shaft, waste water and many more. For faster device installation additional tools are not needed (device installation - Section 2).

Beam: from 2 to 7 meters.

ASB Combined Beams: 8 and 9 meters.

Support for ASB: types - A1 / B1 / C1 / C2.

Supports for LSB: types - E1 / F1 / G1 / G2.

ASB Working Load Limit (WLL): from 1500kg up to 3500kg (depends on configuration - please see ASB Technical Data Table).

LSB Working Load Limit (WLL): from 500kg up to 2000kg (depends on configuration - please see LSB Technical Data Table).

Safety factor for lifting loads: 2.1:1.

Safety factor for personal rescue: 10:1.

ASB - Protection for maximum five people at the same time. ASB Combined Beam - max two people at the same time.

LSB - Protection for maximum three people at the same time.

### DEVICE USE SCENARIOS

#### 1. Lifting loads only

ASB/LSB can be used for lifting/lowering loads up to the related Working Load Limit (WLL - which is always indicated on the beam) with chain hoists, RUP50x-CT/DT series devices and other lifting equipment. For lifting loads external trolley must be used.

Lifting loads - Section 3.

#### 2. Personal protection and lifting loads

ASB/LSB device can be used for personal protection (for ASB max. 5 people at the same time and for LSB max. 3 people at the same time) during lifting/lowering loads. When Combined ASB Beams are used - max. 2 people at the same time. During both operations at the same time (personal protection and lifting/lowering loads) WLL of the device indicated on the beam must be reduced - please refer to Section 3. For personal protection internal trolley must be used.

Personal protection - Section 4. Lifting loads and personal protection at the same time - Section 5.

#### 3. Rescue and personal protection only.

ASB/LSB device can be used for rescue purposes and personal protection as component of personal protective equipment against fall from height. During rescue operation lifting/lowering loads IS NOT allowed. For rescue RUP50x-C or RUP50x-D rescue lifting device must be used. For personal protection internal trolley must be used.

Rescue - Section 6.

Personal Protection - Section 4.

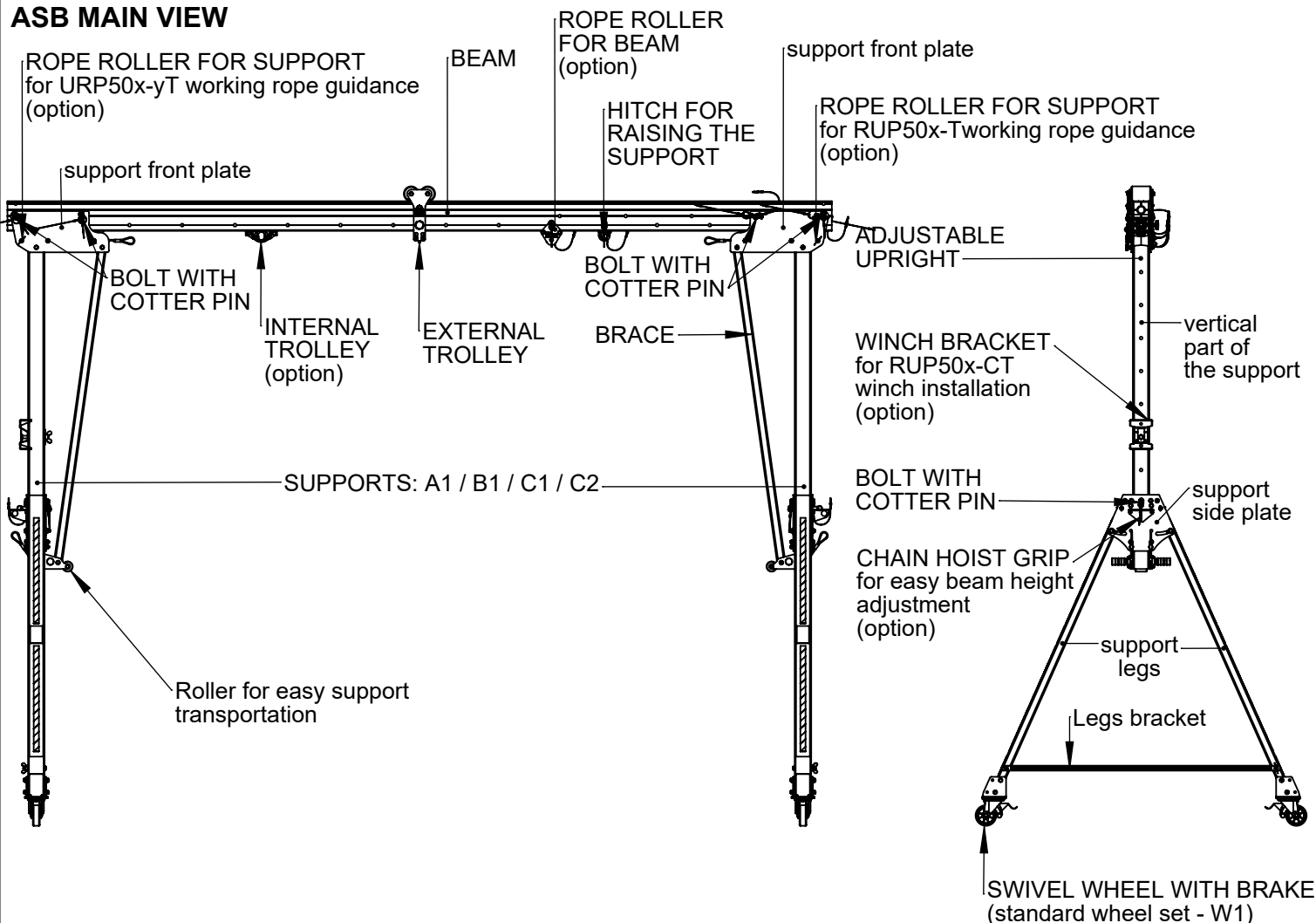
ASB

LSB

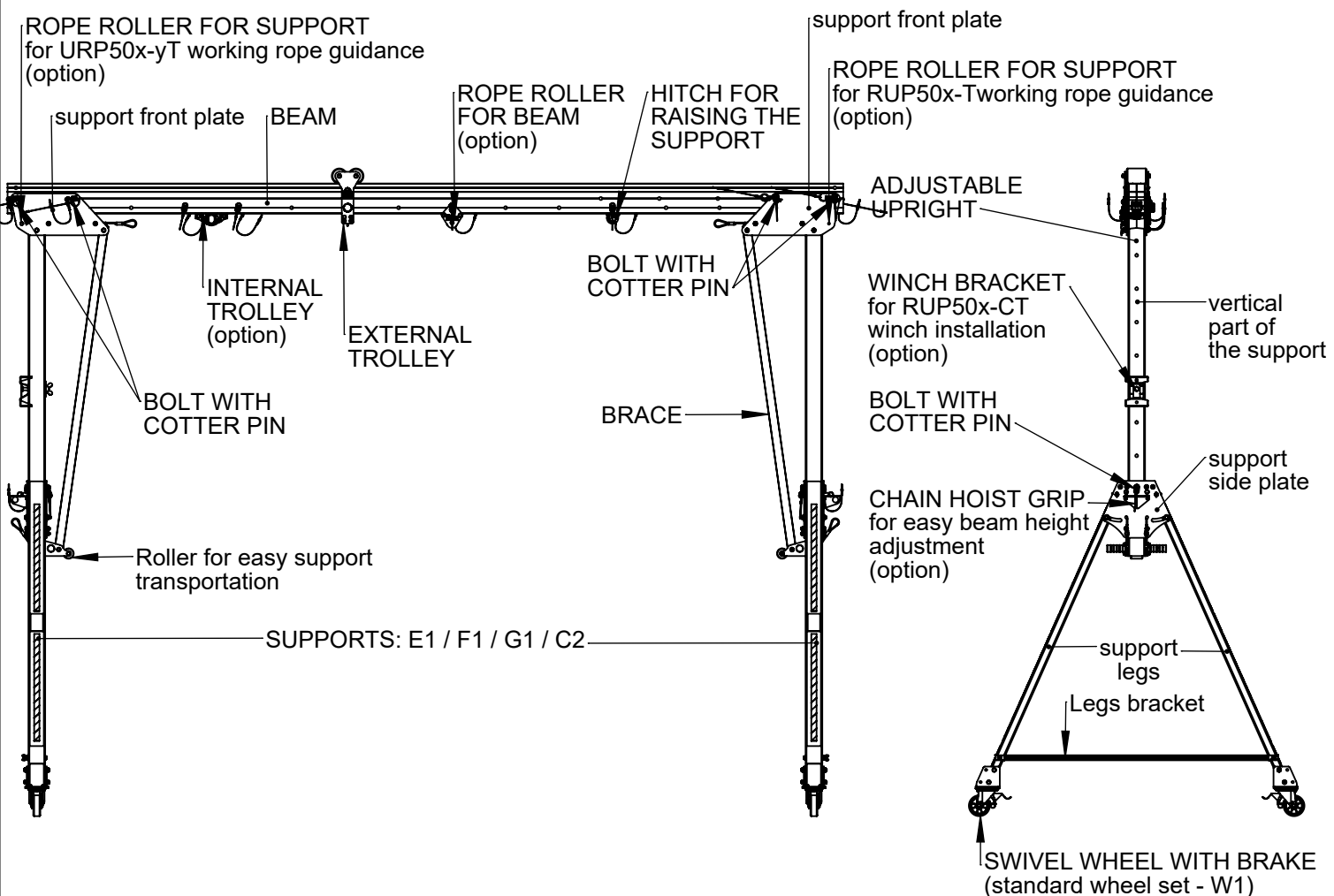


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## ASB MAIN VIEW



## LSB MAIN VIEW



## GENERAL SAFETY INSTRUCTION

### INSPECTION BEFORE FIRST USE

ASB/LSB device must be visually and functionally inspected before first use by a competent person. Inspection must establish that all parts of the device are safe and has not been damaged by incorrect assembly, transport or storage. Inspections are carried out by the user.

### INSPECTION BEFORE WORKING

Before each use it is obligatory to carry out a pre-use check of the equipment, to ensure that it is in a serviceable condition and operates correctly before it is used. During pre-use check it is necessary to inspect all elements of the equipment in respect of any damages, excessive wear, corrosion, abrasion, cutting or incorrect acting. Especially take into consideration:

- components visual defects,
- test the trolleys for free movement along the beam,
- ensure that WLL of the device is sufficient for the application and will not be exceeded.

Inspections are carried out by the user.

### MAXIMUM LIFESPAN / PERIODIC INSPECTION / WARRANTY

Maximum lifespan of the ASB/LSB device is unlimited but its depends on the intensity of usage and the environment of use. Using the device in rough environment, marine, contact with sharp edges, exposure to extreme temperatures or aggressive substances, etc. can lead to the withdrawal from use even after one use.

After every 12 months of utilization, equipment must be withdrawn from use to carry out periodical detailed inspection.

Periodic inspections must only be carried out by:

**FOR PERSONAL PROTECTION EQUIPMENT (PPE):** a competent person who has the knowledge and training required for personal protective equipment periodic inspections OR manufacturer OR manufacturer's authorized representative.

**FOR LIFTING EQUIPMENT (NON PPE):** a competent person responsible in the workplace for the interim inspection of lifting equipment.

Depending upon the type and environment of work, inspections may be needed to be carried out more frequently than once every 12 months.

During periodic inspection will be established admissible time of the device use till next periodic inspection.

The result of the periodic inspection must be recorded in Identity Card.

Regular periodic inspections are the essential for equipment maintenance and the safety of the users which depends upon the continued efficiency and durability of the equipment.

During periodic inspection it is necessary to check the legibility of the equipment marking.

**ASB / LSB standard warranty period counted from purchase date: 3-years. Additional warranty can be purchased.**

### MAINTENANCE / STORAGE / REPAIR

If during the inspection any defects or damages are detected ASB/LSB device should be immediately withdraw from the use. Do not change the device design, repair or replace elements included in the kit.

When using the device, protect it against mechanical, chemical and thermal damage. Do not use a damaged or malfunctioning parts. Clean a dirty device with a damp cloth. Store the device indoors, away from moisture and sources of heat.

### WITHDRAWAL FROM THE USE

Device must be withdrawn from use immediately when any doubt arise about its condition for safe use and not used again until confirmed in writing by equipment manufacturer or his representative after carried out the detailed inspection.

### TRANSPORT

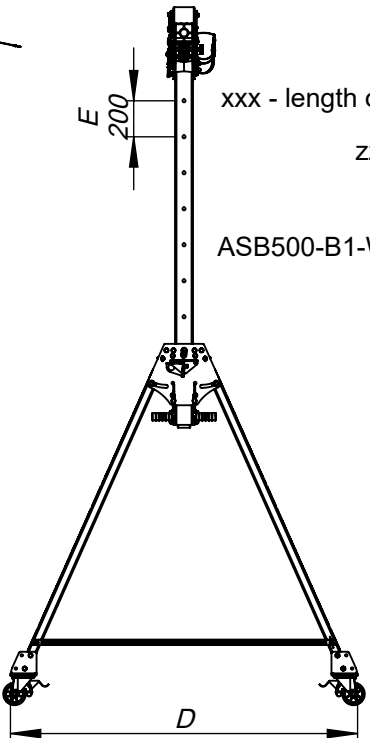
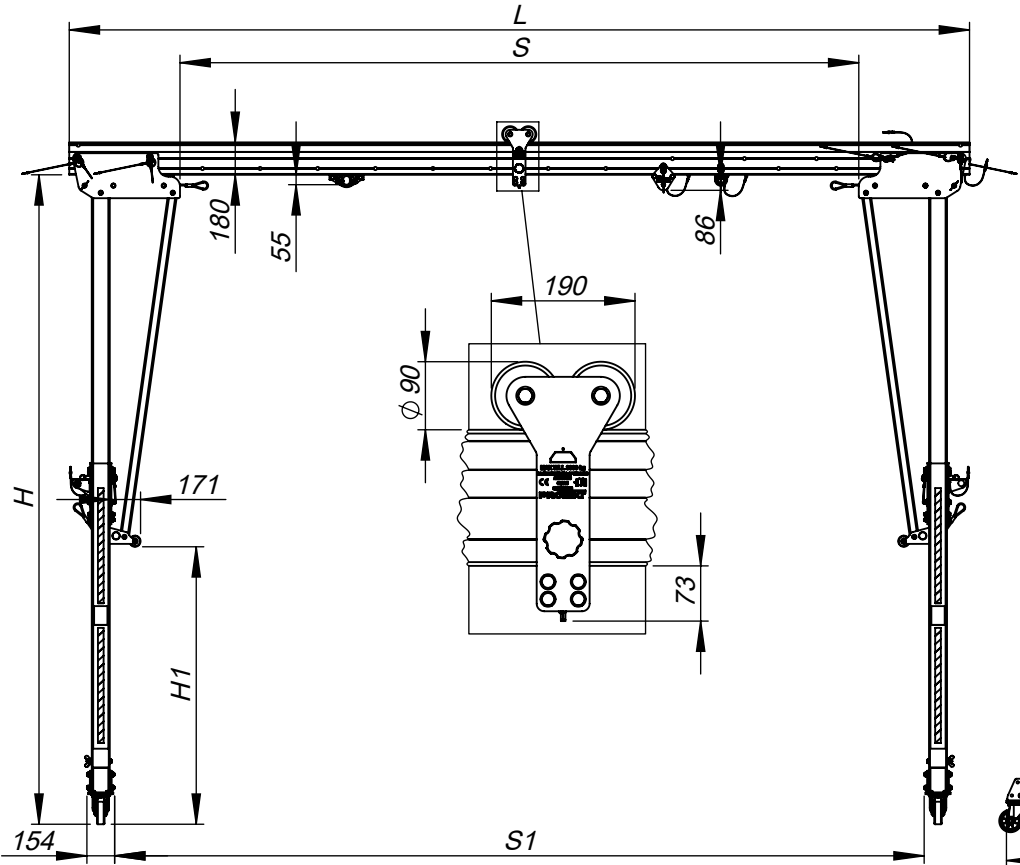
The device should be transported in packaging protecting it from damage or getting wet, e.g. bags made of impregnated fabric or in steel / plastic / waterproof wooden cases or boxes.

### GENERAL PRECAUTIONS

- ASB/LSB device must be installed in accordance with this instruction manual.
- ASB/LSB device can be used in the temperature range from -20°C to +50°C.
- **Working Load Limit (WLL) indicated on the beam MUST NOT be exceeded.**
- **Working Load Limit (WLL) indicated on the beam MUST BE REDUCED to the RWWL value when personnel is protected (attached to the internal trolley) during lifting/lowering loads in accordance with Section 5.**
- During rescue operation lifting/lowering loads IS NOT allowed - please refer to Section 6.
- Each lifting operation must be properly planned and the weight of the load to be lifted must be known by the operator.
- Before any lifting operation all wheel brakes MUST BE locked.
- Equipment for lifting loads (e.g. hoists, chains) MUST BE attached ONLY to the external trolley attachment point.
- DO NOT attach load to the internal trolley. Internal trolley is intended to be used ONLY as personal protective equipment only.
- The operator must ensure that the additional lifting equipment (e.g. hoists, chains) are properly attached and not expose him or other personnel to danger.
- **ASB/LSB device can be moved under load only when a competent person or authority approves a risk assessment and method statement for a particular reason.**
- **Risk assessment and method statement must consider additional loading in "wet lift" situation.**
- Do not allow load to swing.
- Beam must be positioned horizontally during any lifting operation.
- Avoid side loads. Lift loads only when load chain is stretched in the vertical position between load and attachment point of lifting device.
- Do not lift or transport loads while personnel are in the danger zone.
- Personnel SHOULD NOT stand or pass under a suspended load.
- Suspended load MUST NOT be left unattended for a long period of time.
- BEFORE starting lowering the load ALWAYS make sure that personnel are not stand or pass under the load.

ASB TECHNICAL DATA TABLE

'L' TOTAL BEAM LENGTH [mm]	'S' Working span [mm]	'S1' Bottom span [mm]	Beam weight [kg]	A1 SUPPORT		B1 SUPPORT		C1 SUPPORT		C2 SUPPORT	
				WLL [T]	Total device weight [kg]	WLL [T]	Total device weight [kg]	WLL [T]	Total device weight [kg]	WLL [T]	Total device weight [kg]
2000	770	1496	26,7	3*	122	3	148	3	204	1	242
3000	1770	2496	40,1	3*	135	3	161	3	218	1	255
4000	2770	3496	53,4	3	148	3	174	3	231	1	269
5000	3770	4496	66,5	2.5	162	2.5	188	2.5	244	1	282
6000	4770	5496	80,1	2	175	2	201	2	258	1	295
7000	5770	6496	93,5	1.5	188	1.5	214	1.5	271	1	309
8000**	6770	7496	112	0.5	207	0.5	232	0.5	289	0.5	327
9000**	7770	8496	125	0.5	220	0.5	246	0.5	303	0.5	340
Support Weight [kg]				38,2		50,2		72,8		98,4	
'H' - Support height (min...max) [mm]				1594...2194		2207...3607		3230...5430		4230...6430	
'H1' - Under roller height (min...max) [mm]				34...634		141...1541		164...2364		164...2364	
'D' - Legs spacing [mm]				1115		1928		2834		2834	
'E' - Support height increment [mm]				200							



ASB REFERENCE

ASBxxx-yy-zz

where:  
xxx - length of the beam [cm] [200 / 300 / 400 / 500 / 600 / 700 / 800 / 900]  
yy - support height option [A1 / B1 / C1 / C2]  
zz - wheels set type [W1 / W2 / W3 / W4 / W5 / W6]

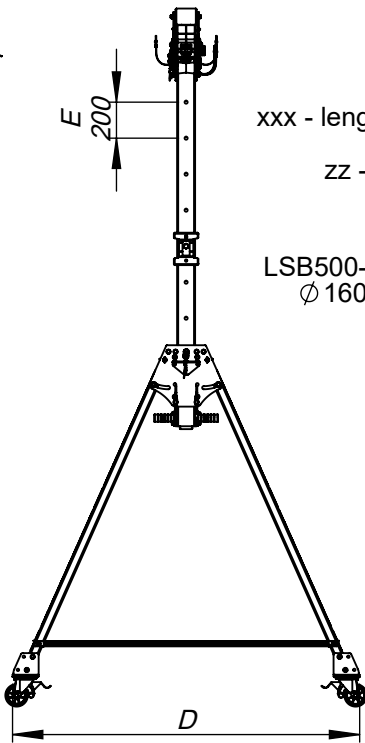
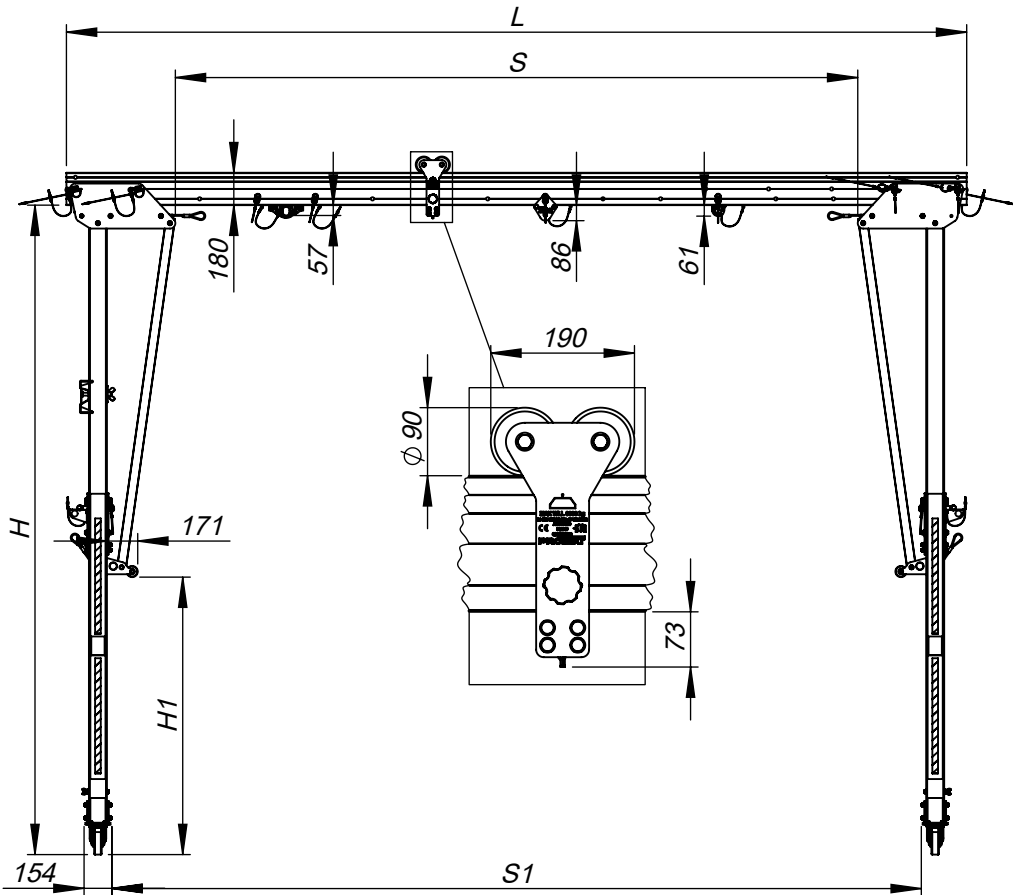
EXAMPLE

ASB500-B1-W2 - 5-meter beam with support B1 with  $\varnothing$  200mm galvanized steel with solid rubber tyre wheels.

\* On special request WLL of 2 and 3 meter beam used with A1 supports can be increased to 3,5T.  
\*\* Combined beams (connected using TRE200-002-000 connector).

LSB TECHNICAL DATA TABLE

'L' Total beam length [mm]	'S' Working span [mm]	'S1' Bottom span [mm]	Beam weight [kg]	E1 SUPPORT		F1 SUPPORT		G1 SUPPORT		G2 SUPPORT	
				WLL [T]	Total device weight [kg]	WLL [T]	Total device weight [kg]	WLL [T]	Total device weight [kg]	WLL [T]	Total device weight [kg]
2000	770	1496	13,2	1.75*	98	1.75	122	1.75	155	0.5	167
3000	1770	2496	19,7	1.5	105	1.5	129	1.5	162	0.5	174
4000	2770	3496	26,3	1.25	111	1.25	135	1.25	169	0.5	180
5000	3770	4496	32,8	1	118	1	142	1	175	0.5	187
6000	4770	5496	39,4	0.75	125	0.75	148	0.75	182	0.5	194
7000	5770	6496	46,0	0.5	131	0.5	155	0.5	188	0.5	200
Support Weight [kg]				34,0		45,0		62,0		68,8	
'H' - Support height (min...max) [mm]				1594...2194		2207...3607		3230...5430		4230...6430	
'H1' - Under roller height (min...max) [mm]				34...634		141...1541		164...2364		164...2364	
'D' - Legs spacing [mm]				1115		1928		2834		2834	
'E' - Support height increment [mm]				200							



LSB REFERENCE

LSBxxx-yy-zz

where:

- xxx - length of the beam [cm] [200 / 300 / 400 / 500 / 600 / 700]
- yy - support height option [E1 / F1 / G1 / G2]
- zz - wheels set type [W1 / W2 / W3 / W4 / W5 / W6]

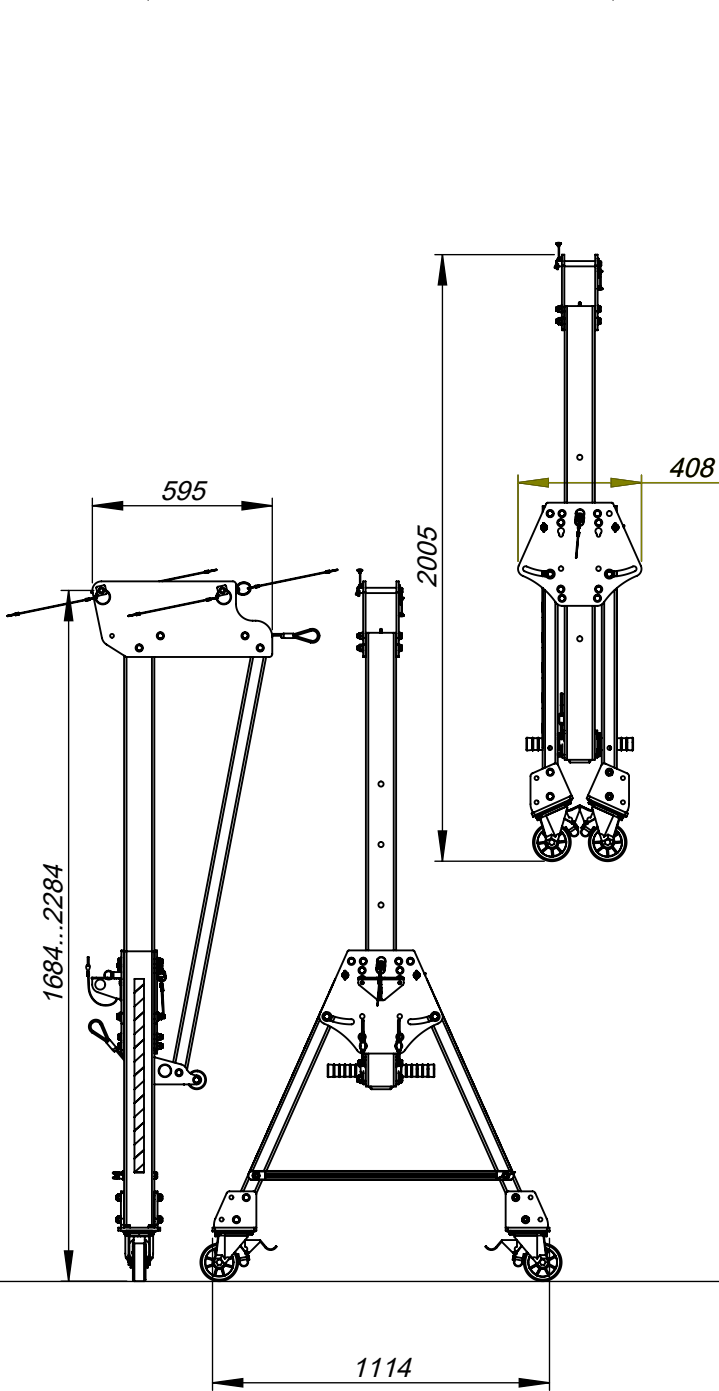
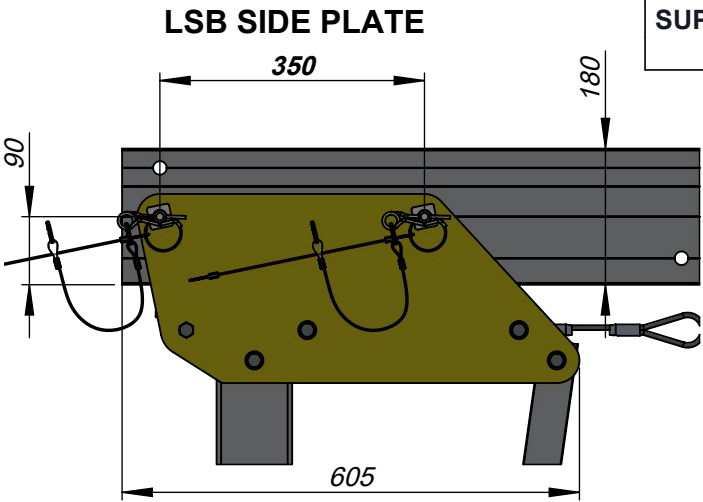
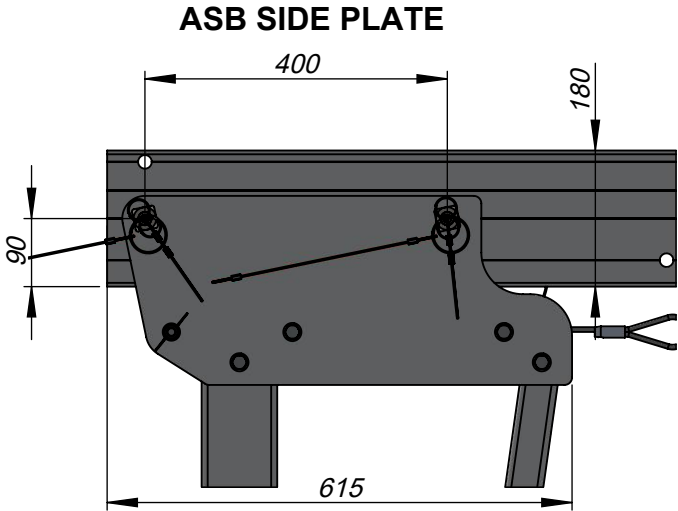
EXAMPLE

LSB500-F1-W1 - 5-meter beam with support F1 with standard Ø 160mm galvanized steel with solid rubber tyre wheels.

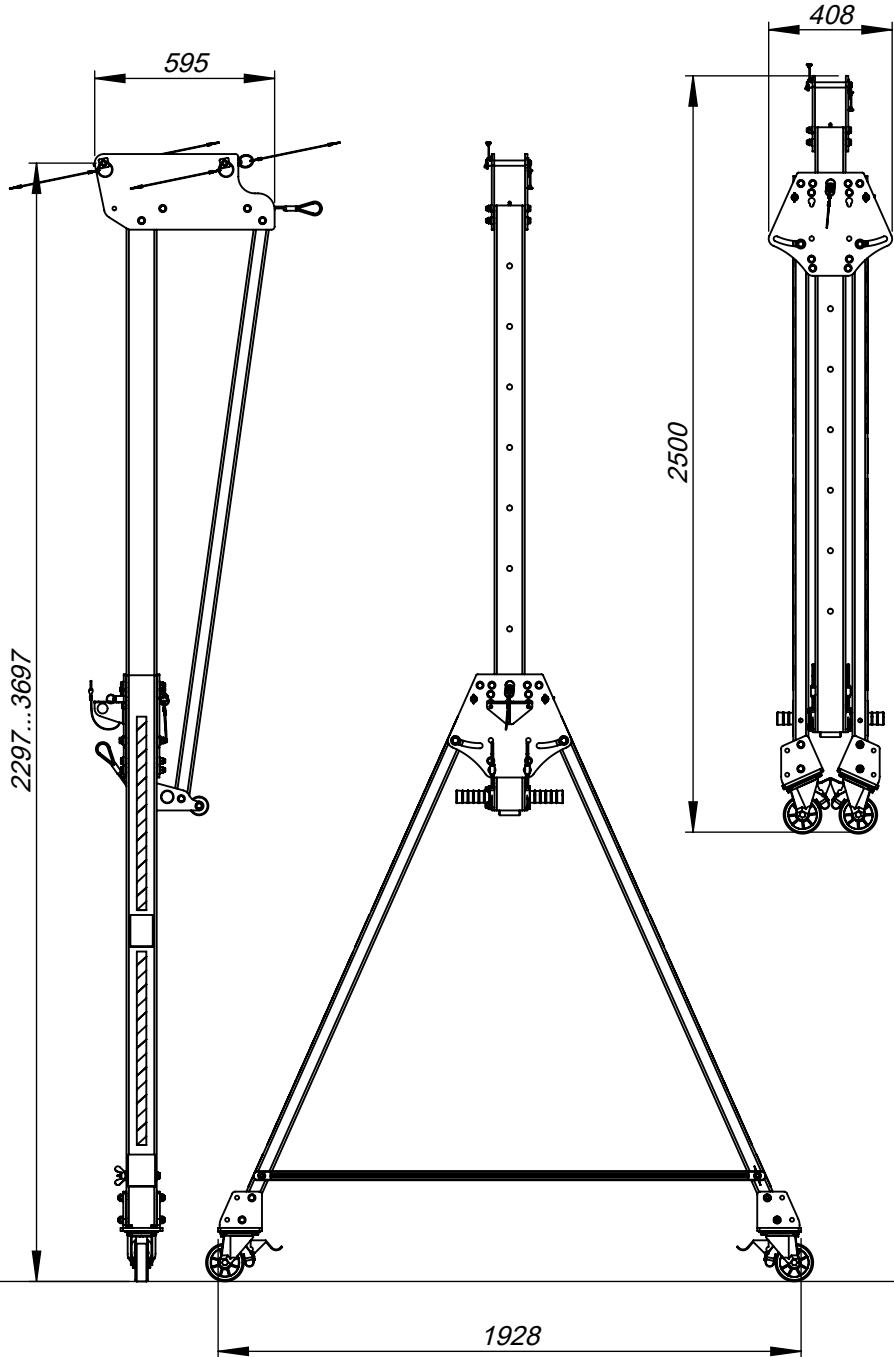
\* On special request WLL of 2 meter beam used with E1 supports can be increased to 2T.

**ASB/LSB BASIC SUPPORT TYPES**  
**NOTICE - HOLE SPACING FOR BEAM-SUPPORT CONNECTION IS DIFFERENT FOR ASB (400mm) AND LSB (350mm).**

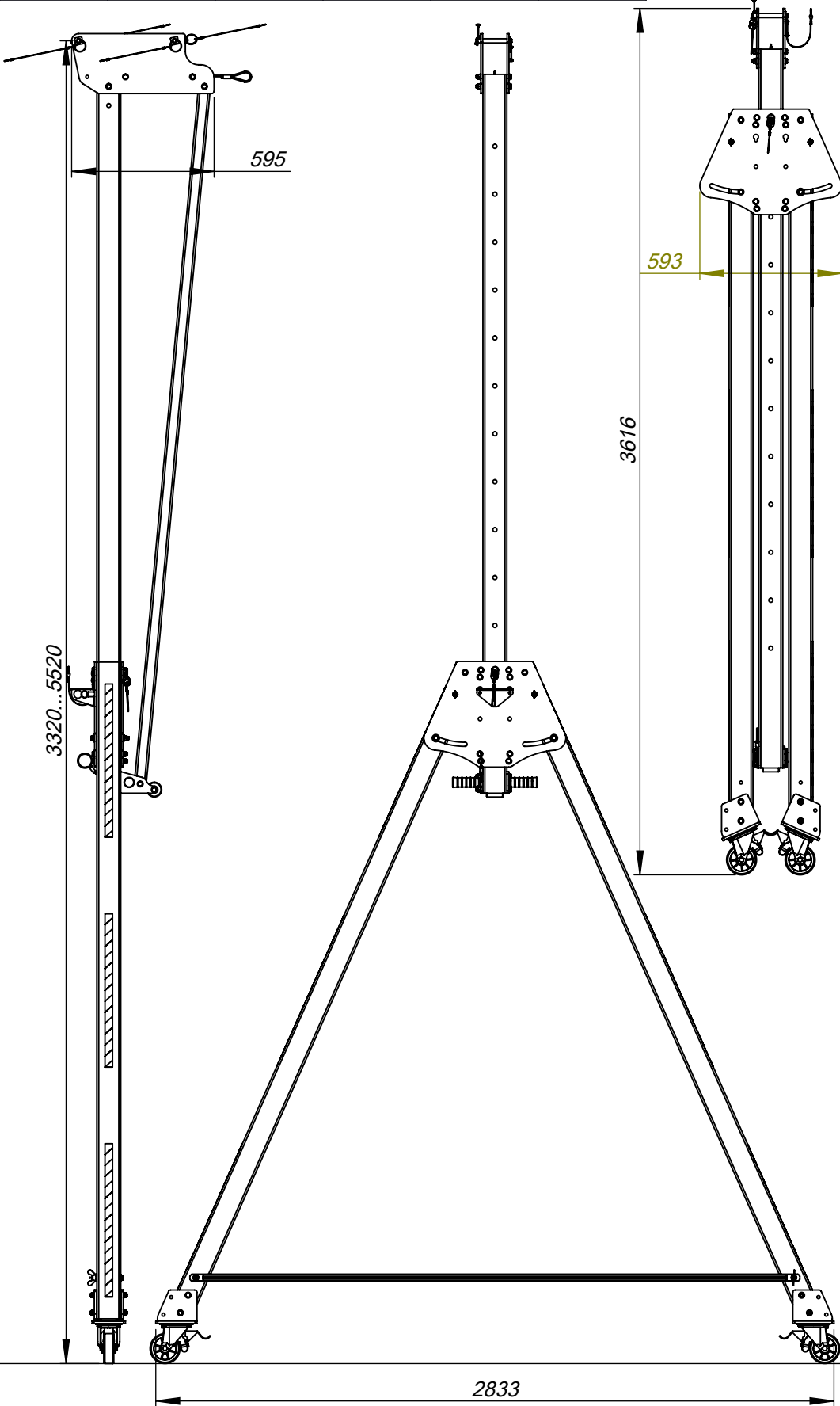
		ASB / LSB - REQUIRED INSTALLATION AREA [m x m]						ONLY ASB COMBINED BEAMS	
		BEAM LENGTH [m]						8m	9m
		2m	3m	4m	5m	6m	7m		
SUPPORT	A1 / E1	1.5 x 6.4	1.5 x 7.4	1.5 x 8.4	1.5 x 9.4	1.5 x 10.4	1.5 x 11.4	1.5 x 12.4	1.5 x 13.4
	B1 / F1	2.5 x 7.5	2.5 x 8.5	2.5 x 9.5	2.5 x 10.5	2.5 x 11.5	2.5 x 12.5	2.5 x 13.5	2.5 x 14.5
	C1 / G1	3.5 x 9.7	3.5 x 10.7	3.5 x 11.7	3.5 x 12.7	3.5 x 13.7	3.5 x 14.7	3.5 x 15.7	3.5 x 16.7



**SMALL**  
ASB SUPPORT "A1" weight: 38,2 kg  
LSB SUPPORT "E1" weight: 34,0 kg



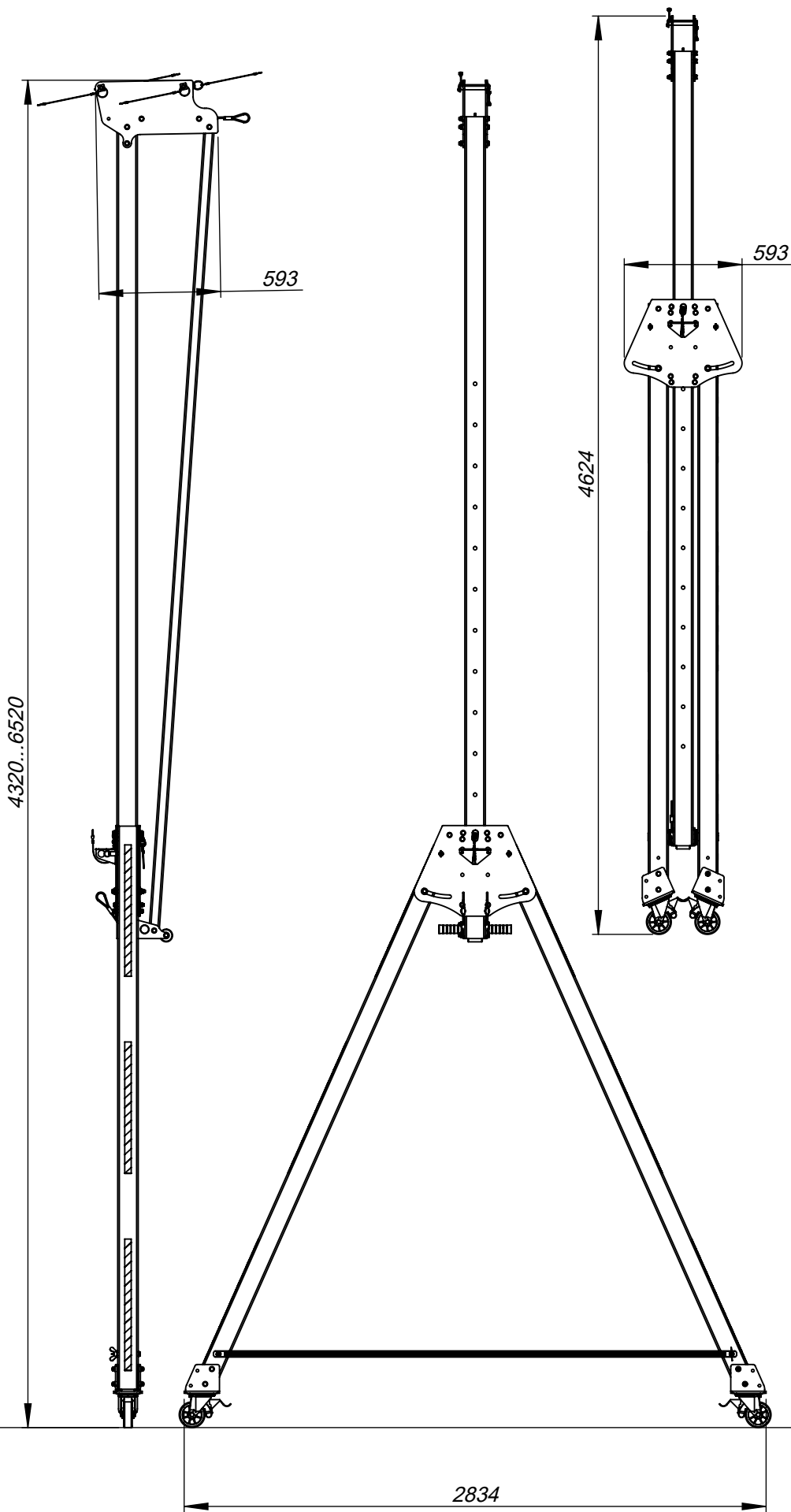
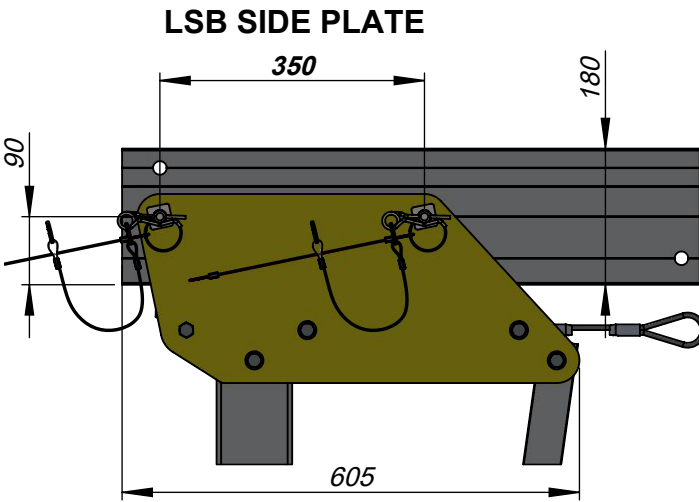
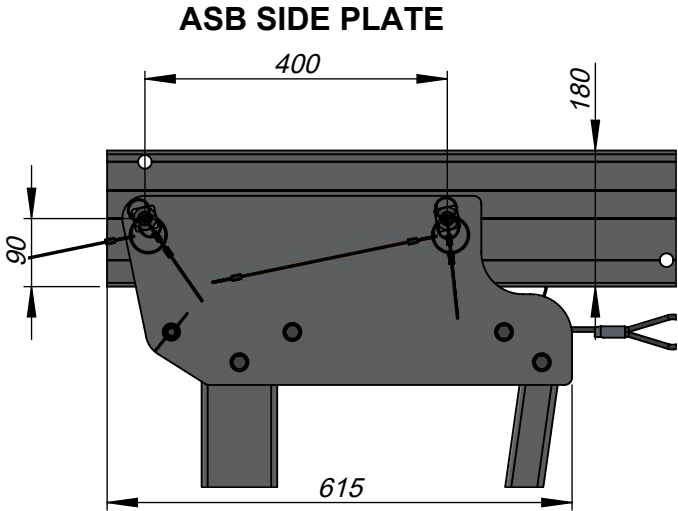
**MEDIUM**  
ASB SUPPORT "B1" weight: 50,2 kg  
LSB SUPPORT "F1" weight: 45,0 kg



**LARGE**  
ASB SUPPORT "C1" weight: 72,8 kg  
LSB SUPPORT "G1" weight: 62,0 kg

**ASB/LSB SPECIAL SUPPORT TYPES**  
**NOTICE - HOLE SPACING FOR BEAM-SUPPORT CONNECTION IS DIFFERENT FOR ASB (400mm) AND LSB (350mm).**

ASB / LSB - REQUIRED INSTALLATION AREA [m x m]								ONLY ASB COMBINED BEAMS	
		BEAM LENGTH [m]							
		2m	3m	4m	5m	6m	7m		
SUPPORT	C2 / G2	3.5 x 11.7	3.5 x 12.7	3.5 x13.7	3.5 x 14.7	3.5 x 15.7	3.5 x 16.7	3.5 x 17.7	3.5 x 18.7

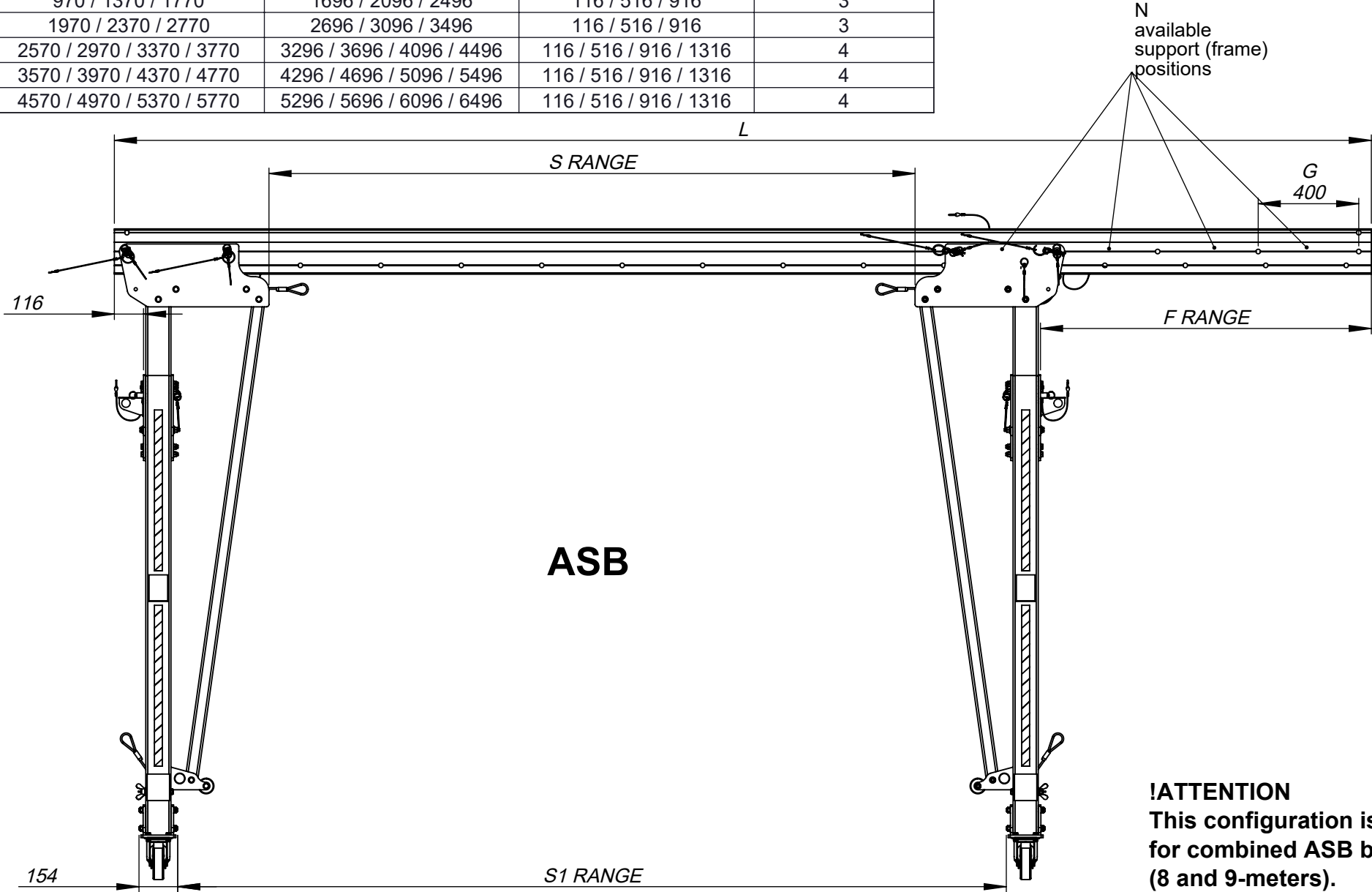


**LARGE - SPECIAL**  
**ASB SUPPORT "C2" weight: 98,4 kg**  
**LSB SUPPORT "G2" weight: 68,8 kg**

ASB FRAME SPAN REGULATION

One support (frame) can be installed to the beam in alternative positions. Regulation step "G" for ASB is always 400mm. Number of steps depends on beam lenth.

'L' Total beam length [mm]	'S RANGE' Working span range [mm]	'S1 RANGE' Working span range [mm]	'F range' Outreach [mm]	'N' Number of available support positions [pcs]
2000	770	1496	116	1
3000	970 / 1370 / 1770	1696 / 2096 / 2496	116 / 516 / 916	3
4000	1970 / 2370 / 2770	2696 / 3096 / 3496	116 / 516 / 916	3
5000	2570 / 2970 / 3370 / 3770	3296 / 3696 / 4096 / 4496	116 / 516 / 916 / 1316	4
6000	3570 / 3970 / 4370 / 4770	4296 / 4696 / 5096 / 5496	116 / 516 / 916 / 1316	4
7000	4570 / 4970 / 5370 / 5770	5296 / 5696 / 6096 / 6496	116 / 516 / 916 / 1316	4



**!ATTENTION**  
This configuration is not  
for combined ASB beams  
(8 and 9-meters).

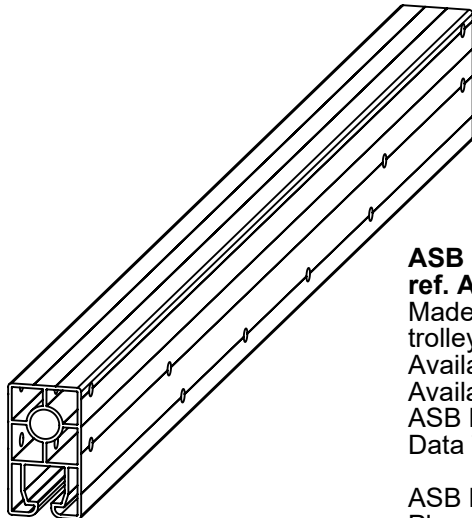


One support (frame) can be installed to the beam in alternative positions. Regulation step "G" for LSB is always 350mm. Number of steps depends on beam length.

Technical drawing of the LSB (Longitudinal Support Beam) showing various dimensions and ranges. The drawing includes the following labels and dimensions:

- LSB**: Longitudinal Support Beam
- S RANGE**: Dimension indicating the range of the S component.
- F RANGE**: Dimension indicating the range of the F component.
- S1 RANGE**: Dimension indicating the range of the S1 component.
- L**: Dimension indicating the total length of the beam.
- G 350**: Dimension indicating a specific length of 350 units for the G component.
- 116**: Dimension indicating a specific length of 116 units.
- 154**: Dimension indicating a specific length of 154 units.

## ASB BASIC EQUIPMENT



### ASB BEAM

ref. ASBxxx-001 (where 'xxx' - beam length in cm]

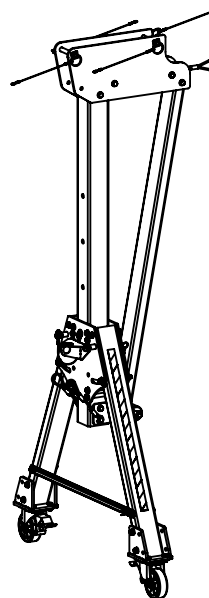
Made of aluminium alloy with inside rail (for internal trolley). Can be used with external and internal trolleys.

Available beam length (solid): 2 / 3 / 4 / 5 / 6 / 7m.

Available beam length (combined): 8 / 9m.

ASB Beam length, weight and WLL - ASB Technical Data Table.

ASB Beam length can be extended up to 9-meters. Please refer to ASB Combined beams Section.



### ASB SUPPORT (FRAME)

A1 - ref. ASB500-450-1

B1 - ref. ASB500-100-1

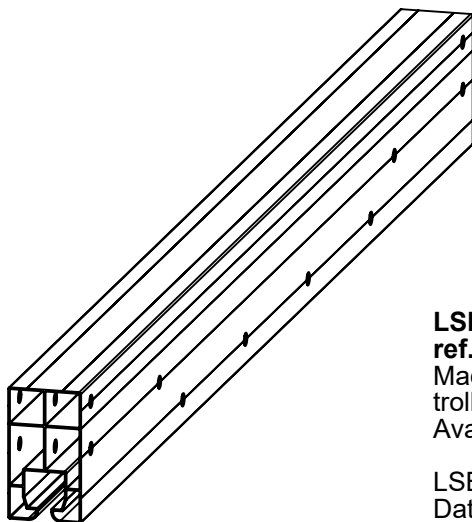
C1 - ref. ASB500-500-1

C2 - ref. ASB500-500-2

Made of aluminium alloy. Various height options. 200mm height adjustment. Foldable construction. Two the same supports are needed for one beam. Equipped with three bolts with cotter pin. Available support types: A1 / B1 / C1 / C2.

Support height and weight - ASB Technical Data Table and Basic support types section.

## LSB BASIC EQUIPMENT



### LSB BEAM

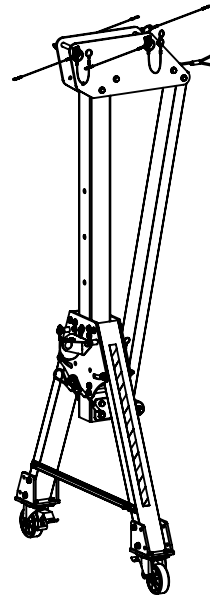
ref. LSBxxx-001 (where 'xxx' - beam length in cm]

Made of aluminium alloy with inside rail (for internal trolley). Can be used with external and internal trolleys.

Available beam length: 2 / 3 / 4 / 5 / 6 / 7 m.

LSB Beam length, weight and WLL - LSB Technical Data Table.

LSB beam cannot be combined.



### LSB SUPPORT (FRAME)

E1 - ref. LSB500-450-1

F1 - ref. LSB500-100-1

G1 - ref. LSB500-500-1

G2 - ref. LSB500-500-2

Made of aluminium alloy. Various height options. 200mm height adjustment. Foldable construction. Two the same supports are needed for one beam. Equipped with three bolts with cotter pin. Available support types: E1 / F1 / G1 / G2.

Support height and weight - LSB Technical Data Table and Basic support types section.