

Specification Summary

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Unloading cutting line

Glass size:	min. 1828 x 1828 mm
	max. 2438 x 3302 mm
Glass thickness:	4-13 mm
Operating height (horizontal):	940 mm
Height of rack:	330 mm

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
1	1	Slewing Pillar Crane with Double Rail Jib
2	1	EASY-LIFT for Pneumatic Tilting
3	1	Service Desk Adjustable in Length for a/m EK 250

November 6, 2006

Description and Specification of Equipment

Item 1. Slewing pillar crane with double-rail jib (with ball bearing), Type SSK-2-6/500

- safe working load: 500 kg
- jib arm radius: 6000 mm
- clearance floor/jib arm: 3800 mm
- overall height: 4590 mm
- radius angle: 210°
- colour: pillar: light grey RAL 7035
jib arm: blue RAL 5015
- incl. 4 running gears
- with basic pneumatic equipment
- incl. trailing cable for compressed-air supply
- incl. intermediate plate and anchors (foundation works by customer)

This offer is only valid for the quoted standard fixing version by intermediate plate, other versions on request.

Using the enclosed data sheet SSK-2 pages 1 to 3, the customer has to check, confirm resp. attach:



- the choice of the suited fixing version
- the implementation of the corresponding, required, technical conditions
- the **structural analysis** and the corresponding **suitability of the fixing version at the customer's site.**

If constructive modifications are necessary on our part after technical clearing up of these specifications, they will cause a surcharge.

Item 2. EASY-LIFT for Pneumatic Tilting, Type EK 250 K 30

- Safe working load: 250 kg
- Hoisting tube: aluminium, 180 mm diam.
- Lifting/lowering: by pneumatic cylinder built into the hoisting tube

- Hoisting speed: can be handled steplessly by the operator 1200 mm

- Stroke: 360° manually

- Horizontal turning of EASY: No. 621 771

- Drawing of suction frame:
 - no
 - 0 - 90° pneumatically stepless
 - no

- Suction pads: 6 x 180 mm diam. of which 4 are extendable

- Suction frame
 - turning:
 - tilting:
 - inclination:

November 6, 2006

General Buyer's Responsibilities

Items listed hereunder are not included in equipment price and shall be furnished by customer, where applicable.

Space Preparation

- " Glass racks
For loading systems, Bystronic/Lenhardt will furnish detailed glass rack drawings to Buyer.
- " Cat walks and platforms
- " Control desk housing and air conditioning Refer to
CN Control Design.
- " Operating safety equipment
Any fencing, safety chains, partitions, etc., which are required by OSHA (Occupational Safety and Health Administration).
- " Concrete work in general
Foundations, pits, breaking through walls and floors, cable channels, etc.

Ambient Conditions

Temperature range of workshop: 59 - 95 degrees Fahrenheit ' (15 - 35) degrees Celsius)
 Maximum humidity: 85% r.h. at 73 degrees Fahrenheit
 (23 degrees Celsius), non-condensing

Proper machine operation and maintenance of process accuracy require stable ambient temperatures within the above range.

Electrical Code

The machine is built in accordance with the National Electric Code. Local codes are the Buyer's responsibilities.

Equipment Transportation

Please refer to Paragraph #3 of "Conditions of Sale".

In the event that delivery of the goods is delayed by the Buyer, any additional shipping/storage costs will be billed to the Buyer.

Equipment Installation .

Please refer to Paragraph #6 of "Conditions of Sale".

During the entire installation, the Buyer shall provide the following services at no charge to Seller.

" Mechanics/helpers

Ideally these people will maintain and/or operate the equipment when in operation. They must be familiar with mechanical and electrical applications and equipped with adequate hand tools.

General Buyer's Responsibilities, continued

- " Plumber
Provides all air/water connections.
- " Special tools
Such as welding, concrete cutting equipment, electric hand tools, leveling device (transit), etc. must be made available to Bystronic/Lenhardt technician, as required.
- " Heavy equipment
Fork lift, crane, etc. with operating personnel, as required.
- " Lockable room at plant site
To keep tools, spare parts and personal effects for Bystronic/Lenhardt technician(s).
- " Telephone access
- " Electricity, air, water, etc.
To be at site before installation starts.
Compressed air to be supplied according to specifications and must be dry and free of contaminants.

Spare parts

Our Service Technician will discuss this subject in detail with the customer during training session.

Operational Safety

Please refer to enclosed "Conditions of Sale", Paragraph #8.

Training

Training will be conducted in English. *Buyer* shall provide a translator in case the to be trained operating and maintenance personnel is not fluent in English.

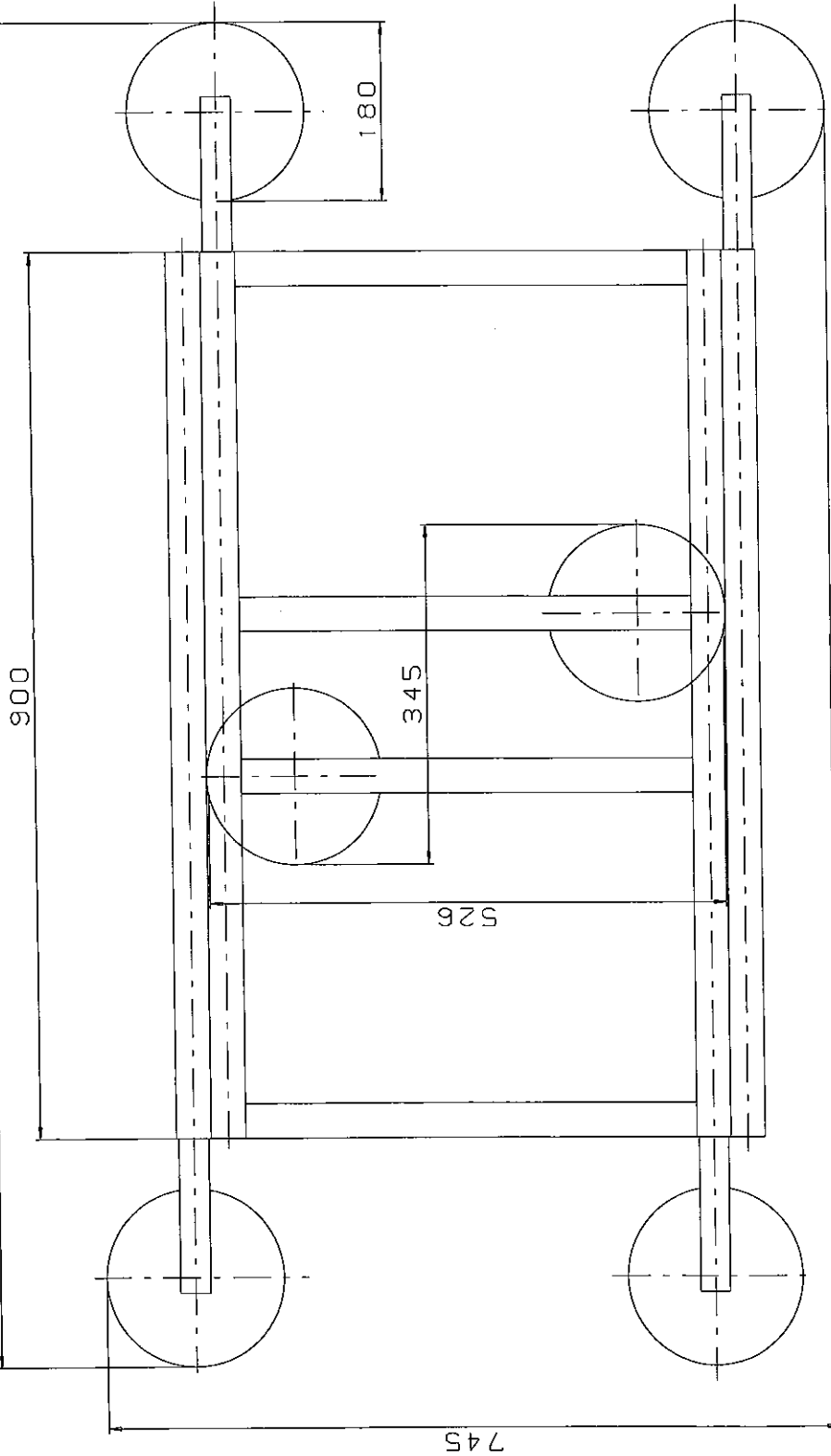
Non-Bystronic Line items

Should this quotation include non-Bystronic line items identified as such in the Listing of Equipment, it will be the buyer's responsibility to ensure observation and compliance with any conditions, special requirements for installation, operations and maintenance, and/or any warning the supplier states concerning those items.

Bystronic will supply these items without engaging in any liability regarding these items.

Should non-Bystronic line items not be operational at the time of machine acceptance, it shall not hold off acceptance of Bystronic equipment and shall not delay the due date of the final payment.

1360 (extendable to 2400)

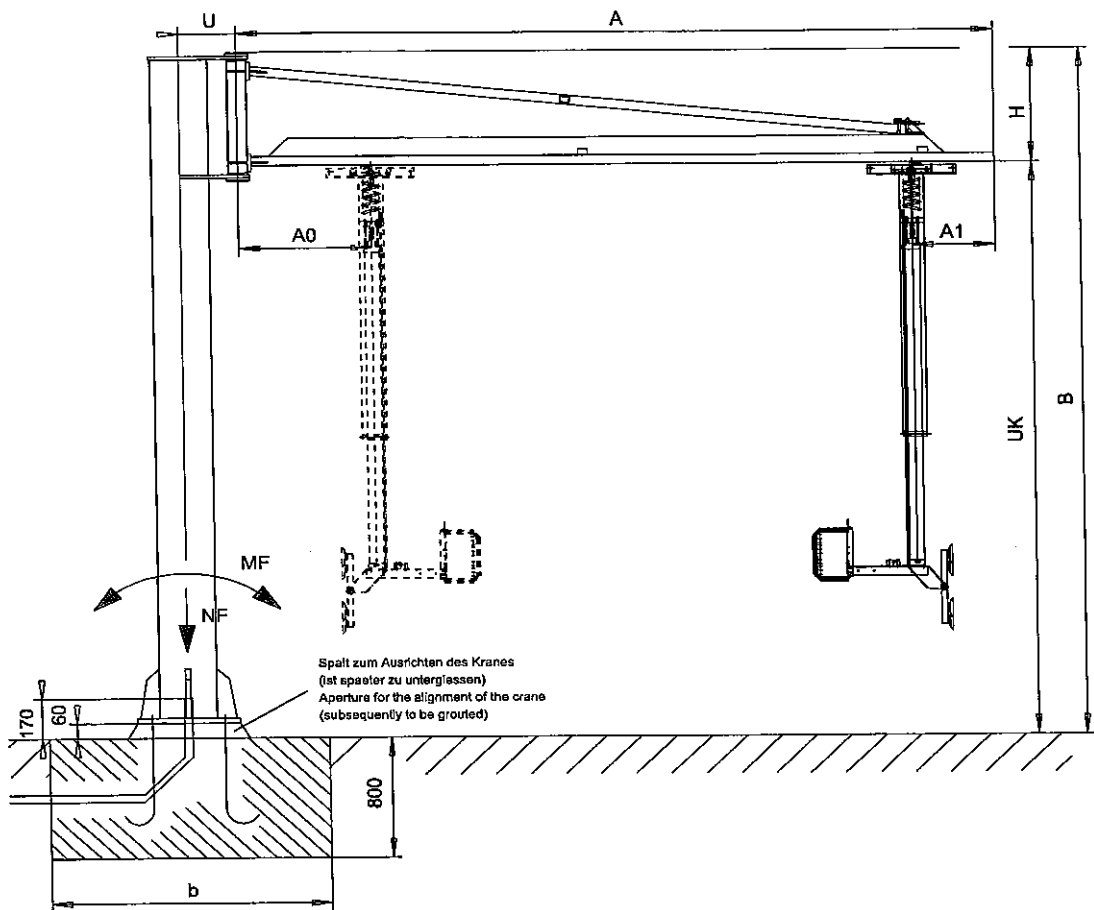


number of suction cups		diameter (mm)	nominal carrying capacity for each cup vertical	nominal carrying capacity for each cup horiz.	suction frame is suitable for	Maßstab - - DIN A 3	
6		Ø180	50	90	EN 250 EK 250	general dimensions	
total nominal carrying capacity			300	540		suction frame	
						EN / EK 250	
						Blatt	
						621 771	
						Bl	
						Ess d.	
						621 771e	
						FC 20	
						ARMATEC	
						CAD	
						Datum Name	
						20.02.02 Franke	
						Zust. Prüfung	
						Datum Name	



Slewing pillar crane SSK-2

with double-rail jib, lower edge of jib arm = 3800 mm,
other heights on request



Tragfähigkeit Load capacity	Ausladung Jib arm radius	Baugröße Structural size	Kranmaße Crane dimensions			Anfahrmaße Moving range		Fundament Foundation	Kräfte & Momente Forces & Torques	
			U mm	H mm	B mm	A0 mm	A1 mm		b mm	MF kNm
150 kg Nutzlast / working load	3500	L36	290	600	UK + H	450	300	1200	12	5,5
	4000	L36	290	600	UK + H	530	300	1300	13	5,6
	4500	L36	290	600	UK + H	530	300	1300	15	5,7
	5000	L36	290	600	UK + H	610	300	1400	17	5,8
	5500	L36	290	600	UK + H	610	300	1400	19	5,9
250 kg / 350 kg Nutzlast / working load	6000	L200	350	790	UK + H	690	300	1500	23	7,6
	3500	L36	290	600	UK + H	460	310	1500	21	8,1
	4000	L200	350	790	UK + H	540	310	1500	25	9,6
	4500	L200	350	790	UK + H	540	310	1600	29	9,8
	5000	L200	350	790	UK + H	620	310	1700	32	9,9
250 kg / 350 kg Nutzlast / working load	5500	L200	350	790	UK + H	620	310	1700	36	10,1
	6000	L200	350	790	UK + H	700	310	1800	39	10,2



Slewing pillar crane SSK-2

with double-rail jib, lower edge of jib arm = 3800 mm,
other heights on request

Befestigung der Säule auf dem Boden mittels einer Zwischenplatte

Bauseitige Voraussetzungen

Die Durchführbarkeit einer solchen Lösung an den vorliegenden baulichen Verhältnissen ist vom Bauherrn statisch zu überprüfen. Dabei muß sichergestellt werden, daß die auftretende Beanspruchung vom Gebäude aufgenommen werden kann.

Verankerung der Zwischenplatte

Die Verankerung der Zwischenplatte erfolgt mit Gewindestangen der Werkstoffgüte 5.6 nach DIN 267. Diese werden, abhängig von den baulichen Verhältnissen, entweder eingegossen oder verschraubt.

Wichtige Anmerkung!

Dübeln ist im Kranbau unzulässig, da die auftretenden Beanspruchungen als "nicht vorwiegend ruhend" einzustufen sind und eine allgemeine Zulassung für diese Beanspruchungsart nicht vorliegt.

Anchoring of the pillar with an intermediate plate

Preconditions at site

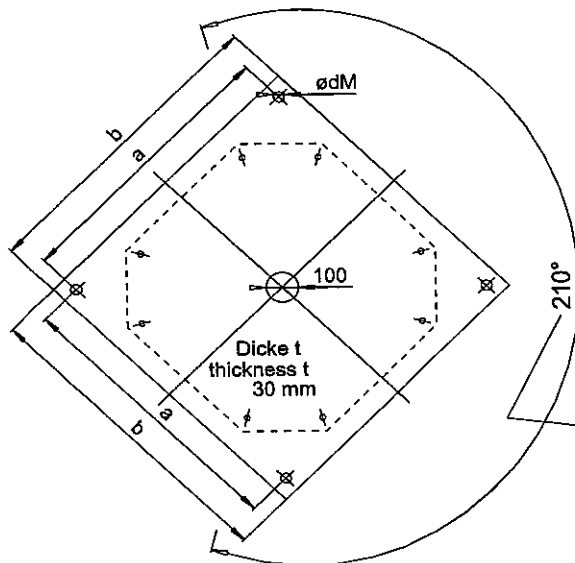
The building owner must study the statics involved in implementing such a solution in his building. He must make certain that the building is capable of absorbing the stresses created.

Anchoring the intermediate plate

The intermediate plate is anchored with threaded rods of material quality 5.6 to DIN 267. Depending on existing structural conditions, these are either cemented in or attached with bolts.

Important information!

Dowelling is not permitted in crane construction because the stresses which develop must be classified as "not primarily static" and no general approval exists for this type of stress.



Baugröße des Kranes	a	b	ødM	Gewicht
Size of crane	mm	mm		weight
L36	460	600	M27	82 kg
L200	900	1000	M30	235 kg

Schwenkbereich
slewing range

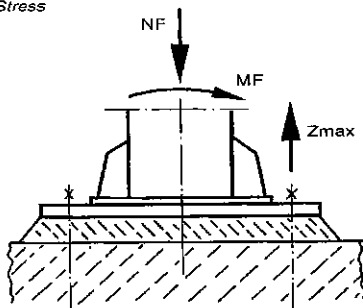


Slewing pillar crane SSK-2

with double-rail jib, lower edge of jib arm = 3800 mm,
other heights on request

Befestigung der Zwischenplatte Fastening the intermediate plate

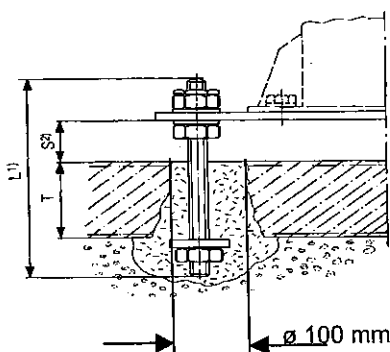
Beanspruchung
Stress



MF..... Auftretendes Moment am Säulenfuß
NF..... Auftretende Normalkraft am Säulenfuß
Zmax... Maximale Ankerzugskraft

MF..... Torque exerted at base of pillar
NF..... Normal force at base of pillar
Zmax... Maximum anchor pull-out force

Befestigung auf einer Stahlbeton-Bodenplatte Fastening to a reinforced concrete floor plate



Gewindestange Threaded rod Ø dM	Lmin ¹⁾	S ²⁾
	mm	mm
M20	T+180	60
M24	T+210	
M27	T+210	
M30	T+220	
M36	T+230	

Erläuterungen:

- 1) Minimale Länge der Gewindestangen. Diese ist abhängig von der Dicke der Bodenplatte.
- 2) Spalt zum Ausrichten des Kranes (ist später mit Mörtel zu untergießen).

Key:

- 1) Minimum length of threaded rods. This depends on the thickness of the floor plate.
- 2) Gap to level the crane (to be underpoured with mortar later).

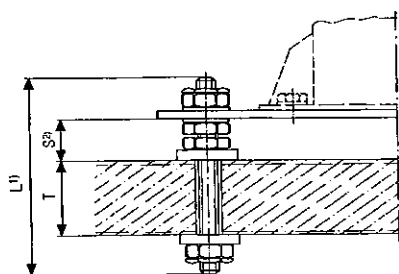
Montagefolge:

- a) Einbringung der Öffnungen mit Unterhöhung gemäß Skizze.
- b) Anker an der Zwischenplatte befestigen und diese Einheit in den Öffnungen positionieren.
- c) Eingießen der Anker mit leicht quellendem Vergußmörtel

Installation sequence:

- a) Make openings with excavation as shown.
- b) Fasten anchor to the intermediate plate and position this unit in the openings.
- c) Cast in the anchor with pourable mortar which swells slightly.

Befestigung auf einer Stahlbeton-Decke Fastening to a reinforced-steel ceiling



Gewindestange Threaded rod Ø dM	Lmin ¹⁾	S ²⁾
	mm	mm
M20	T+230	80
M24	T+270	90
M27	T+290	100
M30	T+310	110
M36	T+340	120

Erläuterungen:

- 1) Minimale Länge der Gewindestangen. Diese ist abhängig von der Dicke der Decke.
- 2) Spalt zum Ausrichten des Kranes (ist später mit Mörtel zu untergießen).

Key:

- 1) Minimum length of threaded rods. This depends on the thickness of the ceiling.
- 2) Gap to level the crane (to be underpoured with mortar later).

Montagefolge:

- a) Einbringung der Bohrungen in die Decke.
- b) Anker an der Decke befestigen.
- c) Zwischenplatte an den Ankern verschrauben.

Installation sequence:

- a) Make openings in the ceiling.
- b) Fasten anchor to the ceiling.
- c) Bolt the intermediate plate to the anchors.