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OWNER'S MANUAL

Pressure Blast Cabinet

BNP series

(BNP 65, 75, 85, 220, 601 & 721)

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1 Abbreviations, definitions, symbols and icons

	<p>Risk of injuri! Connect electric circuit points only by authorized electrician</p>		<p>Electrostatic strokes! Ground!</p>
	<p>Noise > 85dB(A)! Wear ear protection</p>		<p>Explosion hazard caused by dust! Ground!</p>

	<p>Explosion hazard! Connect only max. admitted pressure.</p>
---	--

	<p>Risk of injuri! Dicharge completely pressure during maintenance jobs.</p>
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2 Product description

	Remarks
Cabinet	none
Cyclone	none
Blast machine	Pay attention to the owners manual of the used type
Dust collector	Pay attention to the owners manual of the used type

2.1 Conventional utilization and restrictions

	BNP 65 / 75	BNP 220 / 85	BNP 601	BNP 721
Max. loading rate of the grate /floor	1000 N 100 kp	1000 N 100 kp	2500 N 250 kp	2500 N 250 kp
Max. loading rate of the housing	2000 N 200 kp	2000 N 200 kp	10 000 N 1000 kp	10 000 N 1000 kp
Max. load rating with rack (standard)	2000 N 200 kp	2000 N 200 kp	2500 N 250 kp	2500 N 250 kp
Operating time	Continuous duty			
Basic parameters	See attached yellow cover			

2.2 No conventional utilisation – Warnings for misuse

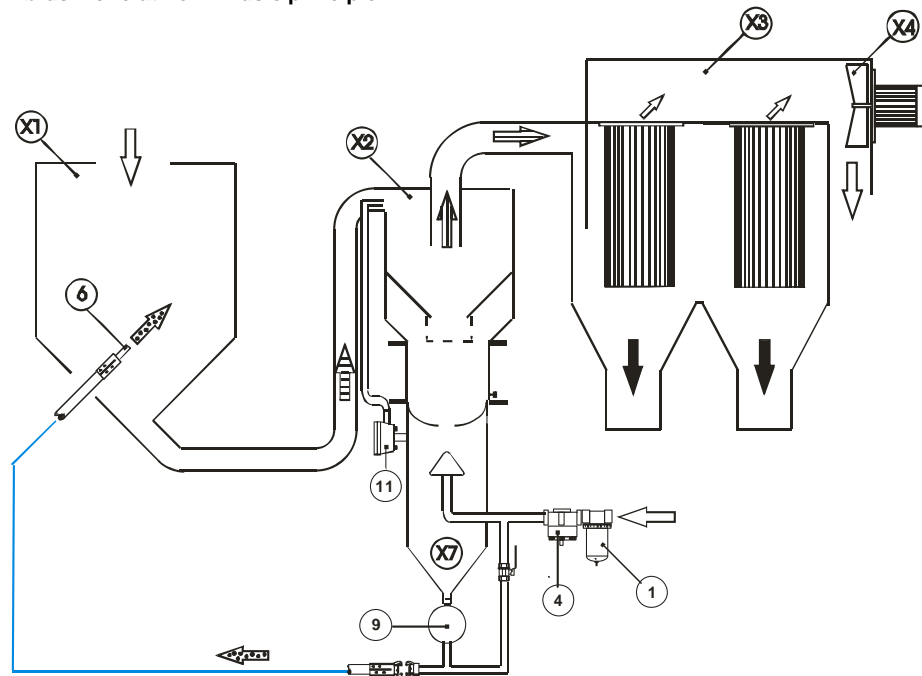
Utilization is interdicted:

As a blow –off cabinet in use of explosive and/or harmful solvents

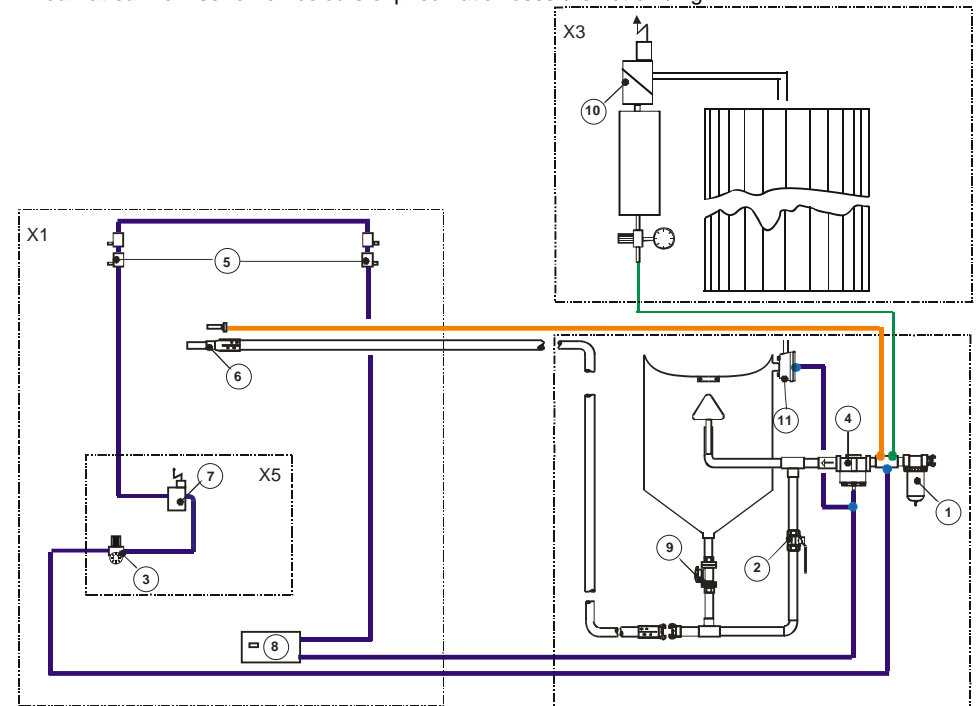
- in explosion hazard zones
- for blasting parts, where hazardous materials were released
 - o by explosion hazards
 - o which where not retained enough by the dust collector
 - o which causes damages caused to somebodys health during a defectuous dust collector

2.3 Operating mode of the complete system

Abrasive circuit flow - Basic principle

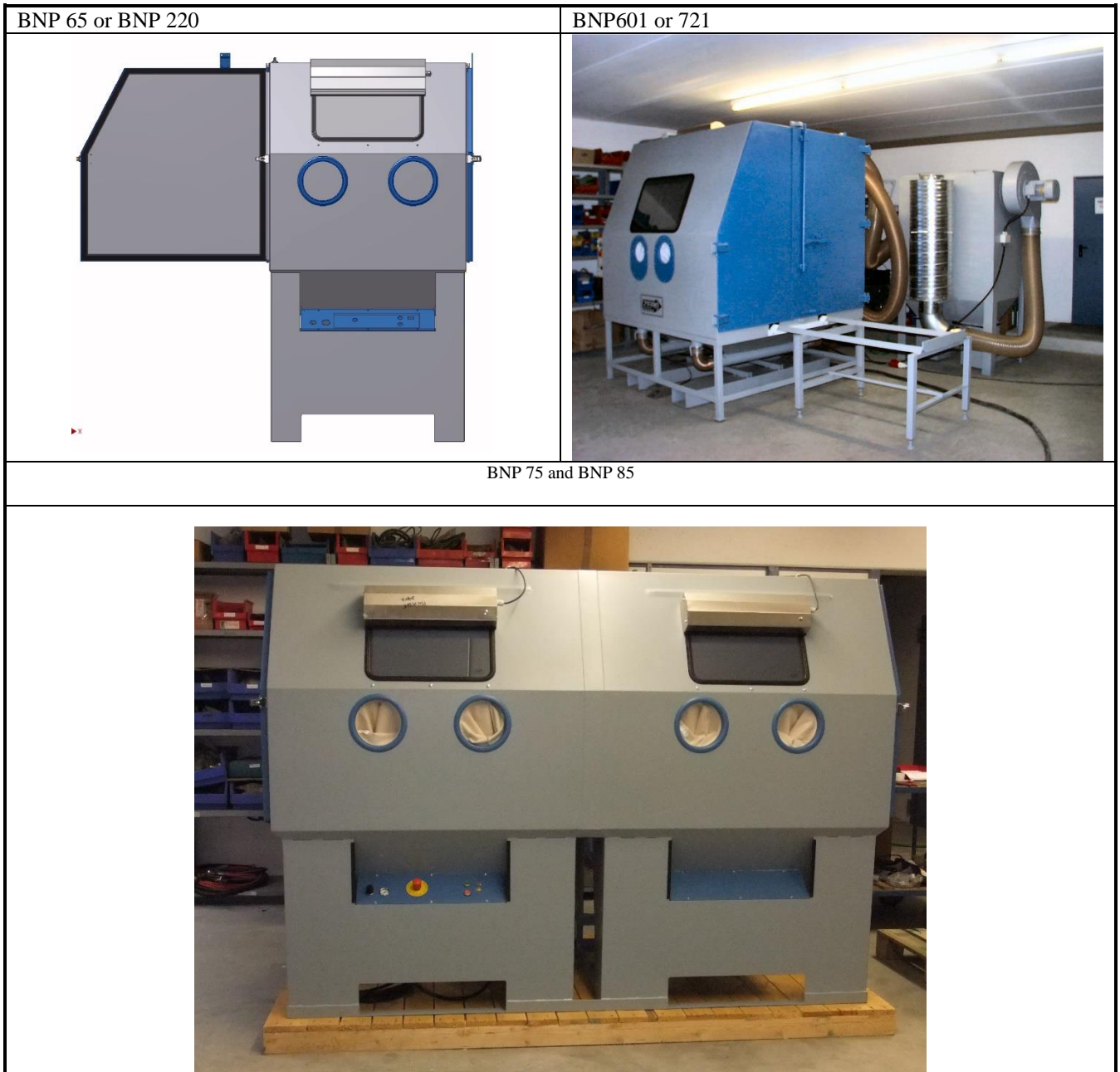


Pneumatical flow scheme - colours of pneumatic hoses are not binding



	Pure air	8	Foot pedal 3/2-way solenoid valve
	Abrasive, dust and air	9	Manual abrasive metering valve
	Abrasive and air	10	Diaphragm valve /cleaning
	Dust and air	11	Outlet valve
	Dust	X1	Blast cabinet
1	Moisture separator, dust collector	X2	Reclaimer
2	Ball valve	X3	Cartridge dust collector
3	Pilot regulator	X4	Exhaust muffer
4	Pressure regulator auch Einlaßventil	X5	E-box
5	Pneumatic door interlock - 3/2-way solenoid valve	X6	Connection channel between fan and blast cabinet *1)
6	Nozzle	X7	Blast machine
7	3/2-way solenoid valve		

2.4 Description



2.4.1 Media-recovery system (Cyclone)

- Cyclone principle
- Deposition of:
 - o Dust in dust collector
 - o Good media in circuit
 - o Coarse impurities in screen

2.4.2 Blast machine

- o Volume: depending of the model
- o Media metering valve: manual or pneumatic
- o Controlled by foot pedal

2.4.3 Dust collector cartridge

- o Standard: cartridge dust collector MBX
- o Automatically cleaning with jet pulse and after running process

- Recommendations for MBX-Filter
- Pulse interval: ca. 40..60 s
- Pulse duration: ca. 500 ms
- Follow up cleaning: ca. 5min
- exchangeable cartridge.
- Dust container

2.4.4 Control elements

	where	notes /functiones
Pressure regulation blasting	Control box	2 to 7 bar
Dedusting filter cartridge	Pressure regulator on air balance vessel – Backside of blast cabinet	Preference pressure: 5 bar
ON/OFF	Control box	Activating: - Control circuit -Fan -Light -Filter cartridge dedusting function (After running process)
Emergency STOP	Control box	Deactivating electrical supply

2.5 Energy consumption

- air consumption: see yellow cover
- electrical connection: see machine shield

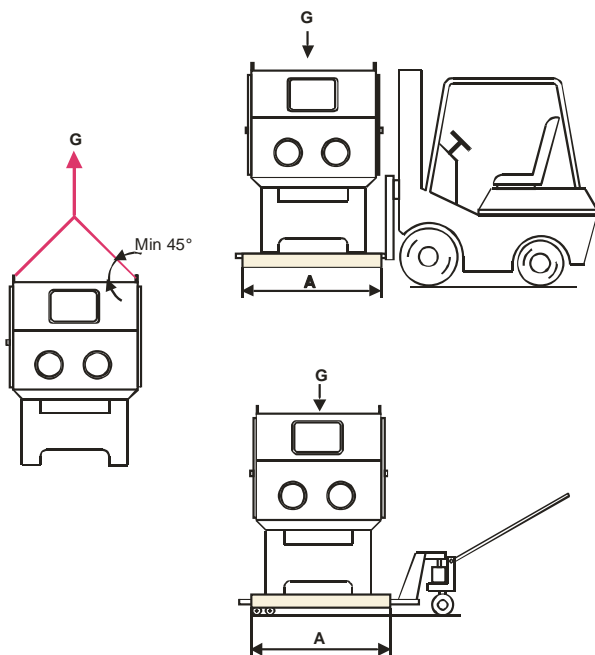
2.6 Emissions

See yellow cover.

3 Set-up for initial installation

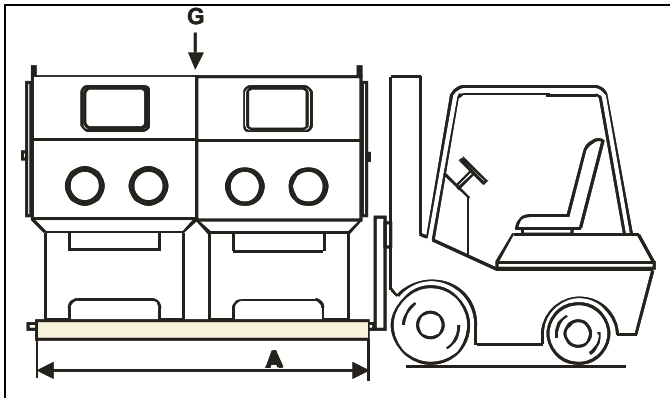
3.1 Carriage / Handling

3.1.1 BNP 65 and BNP 220

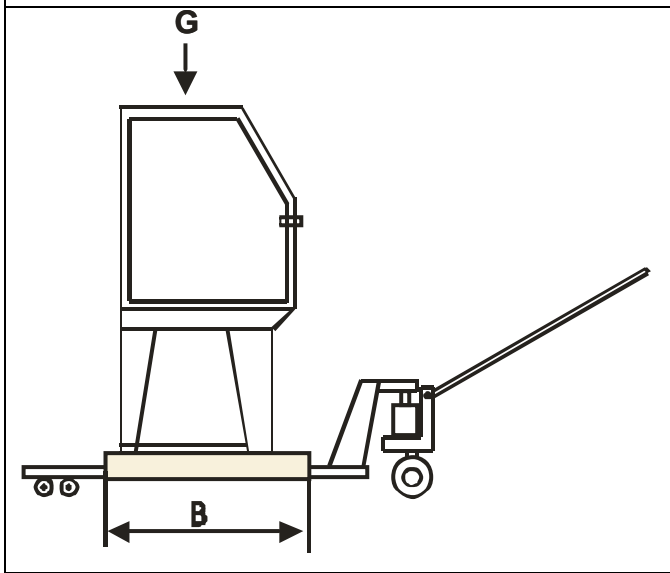
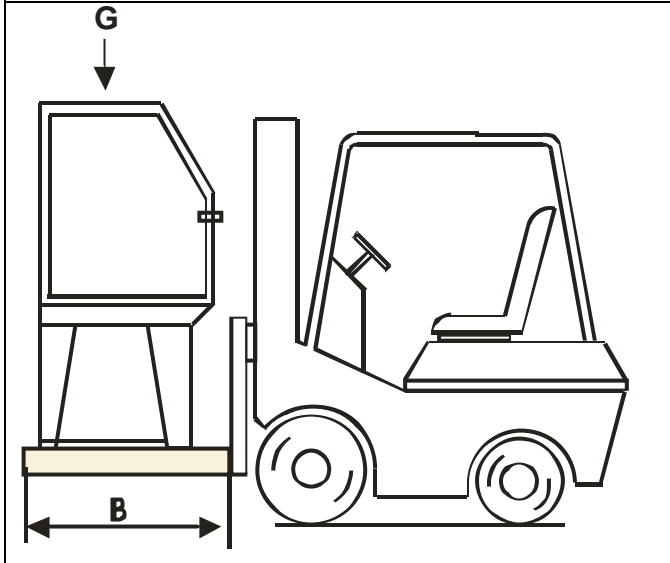


BNP	Weight		A (mm)
65	2500 N	250 kg	1100
220	2800 N	280 kg	1450

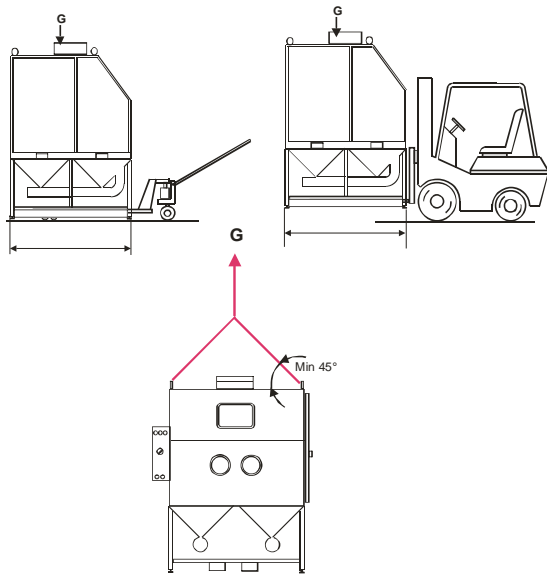
3.1.2 BNP 75 und BNP 85



BNP	Weight		A (mm)	B (mm)
75	5000N	500 kg	2200	1200
85	5600 N	560 kg	2900	1300

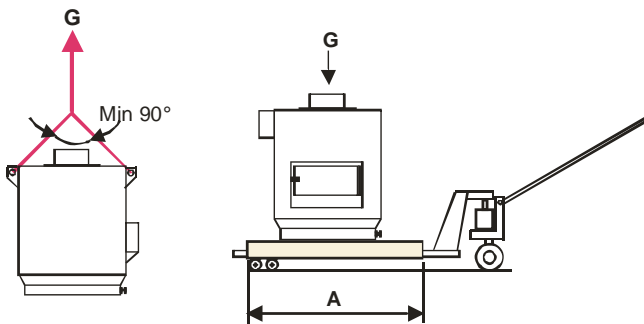


3.1.3 BNP 601 and BNP 721



BNP	Gewicht		A (mm)
601	8000 N	800 kg	1500
721	10 000 N	1000 kg	1850

3.1.4 Cyclone



Type	weight		A (mm)
900	500 N	50 kg	800 mm*)
1200	700 N	70 kg	800 mm*)

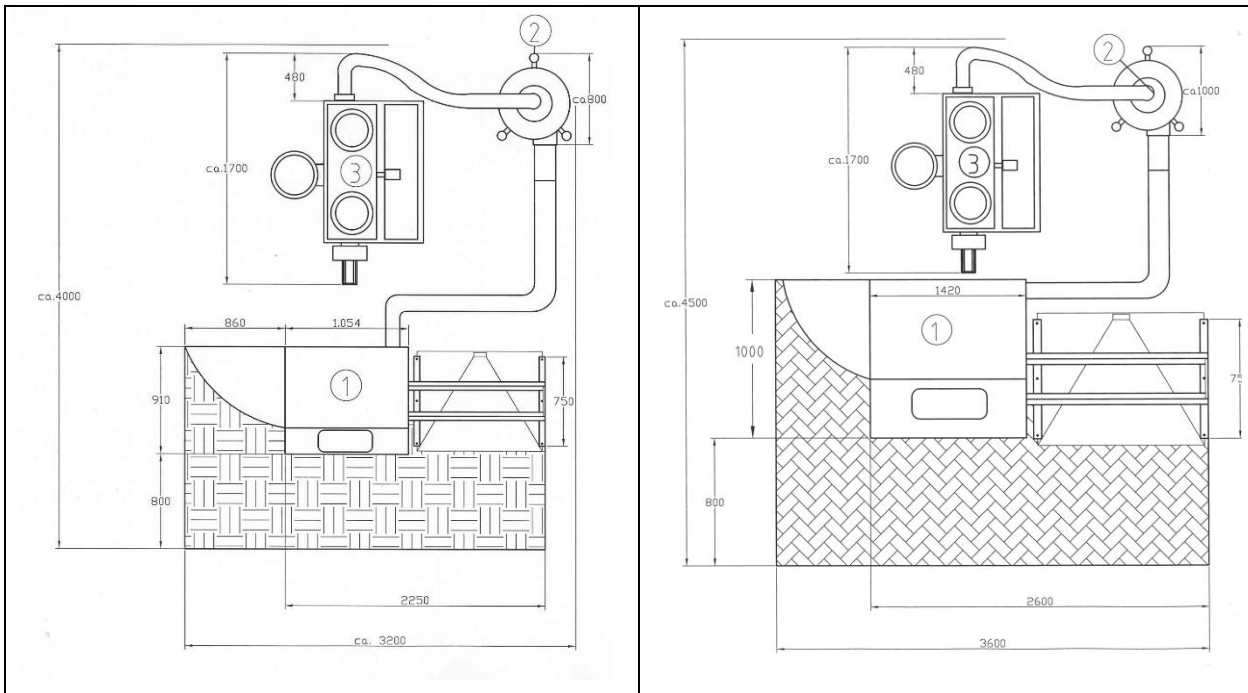
3.2 Unpacking and disposing the packing material

- Pallet: Wooden pallets 800 x1200
- Plastic film

3.3 Requirements

- basic allowance: see yellow cover sheet

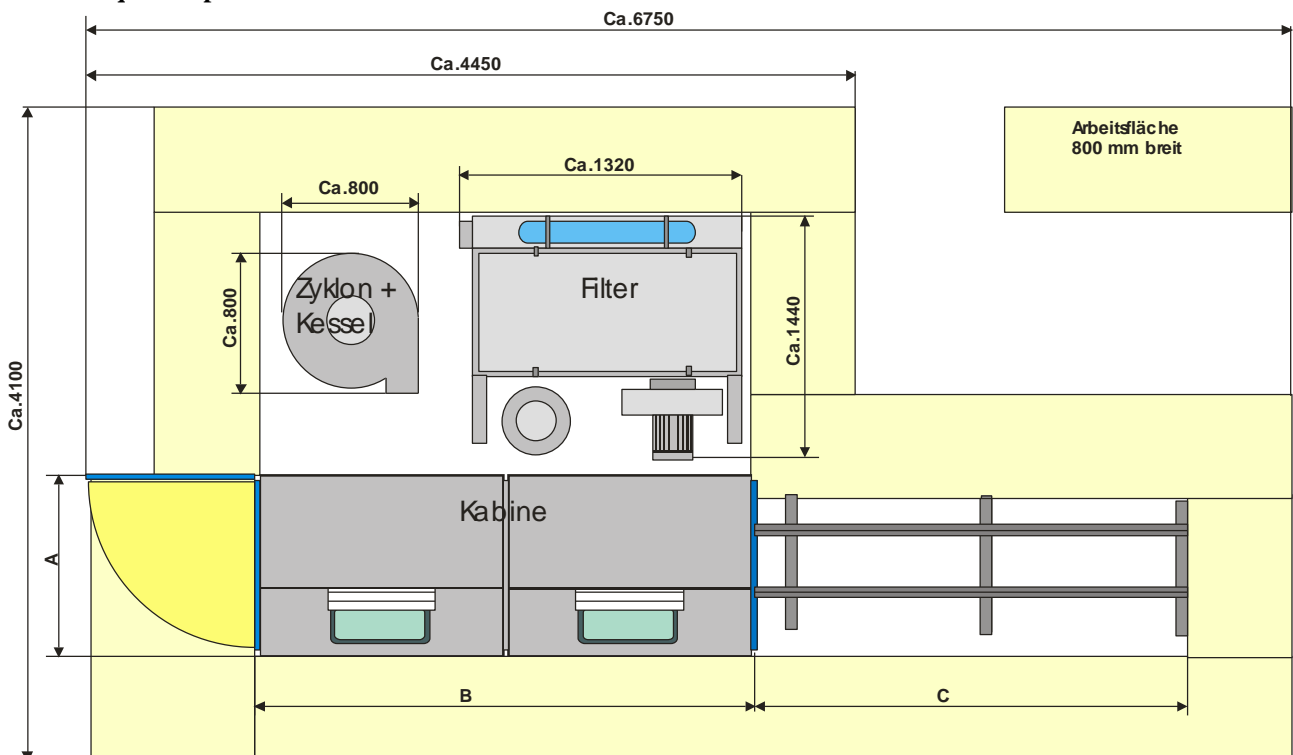
3.3.1 Required space for : BNP 65 and 220



picture 3: Required space for BNP-65 & 220 with stand alone cyclone and MBX-filter

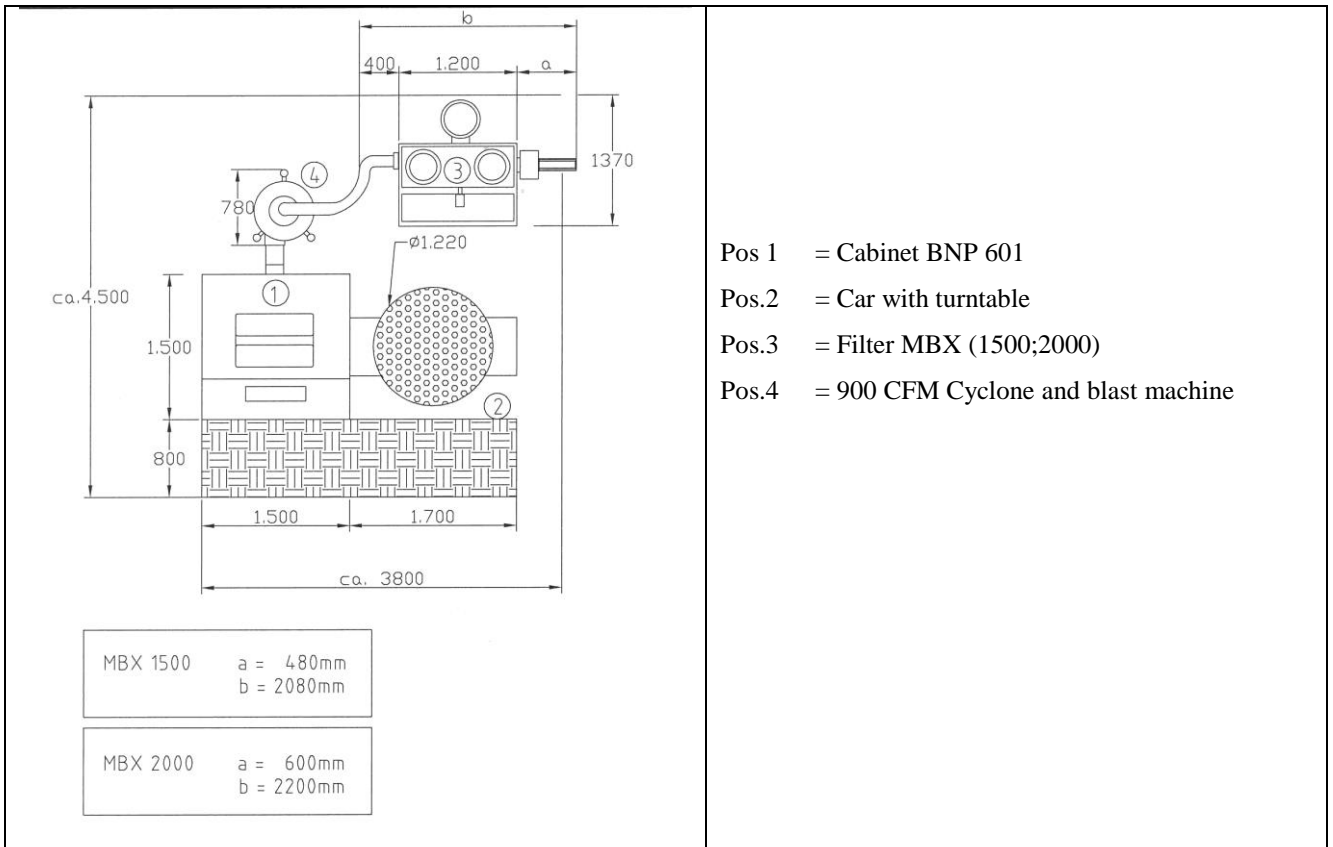
Pos 1	BNP 65(left) und BNP 220 (right)
Pos 2	Cyclon (900 oder 1200 CFM) + blast pot
Pos 3	MBX Filter 1500 CFM

3.3.2 Required space: BNP 75 and BNP 85



	BNP 75	BNP 85
A (mm)	910	1000
B (mm)	2120	2850

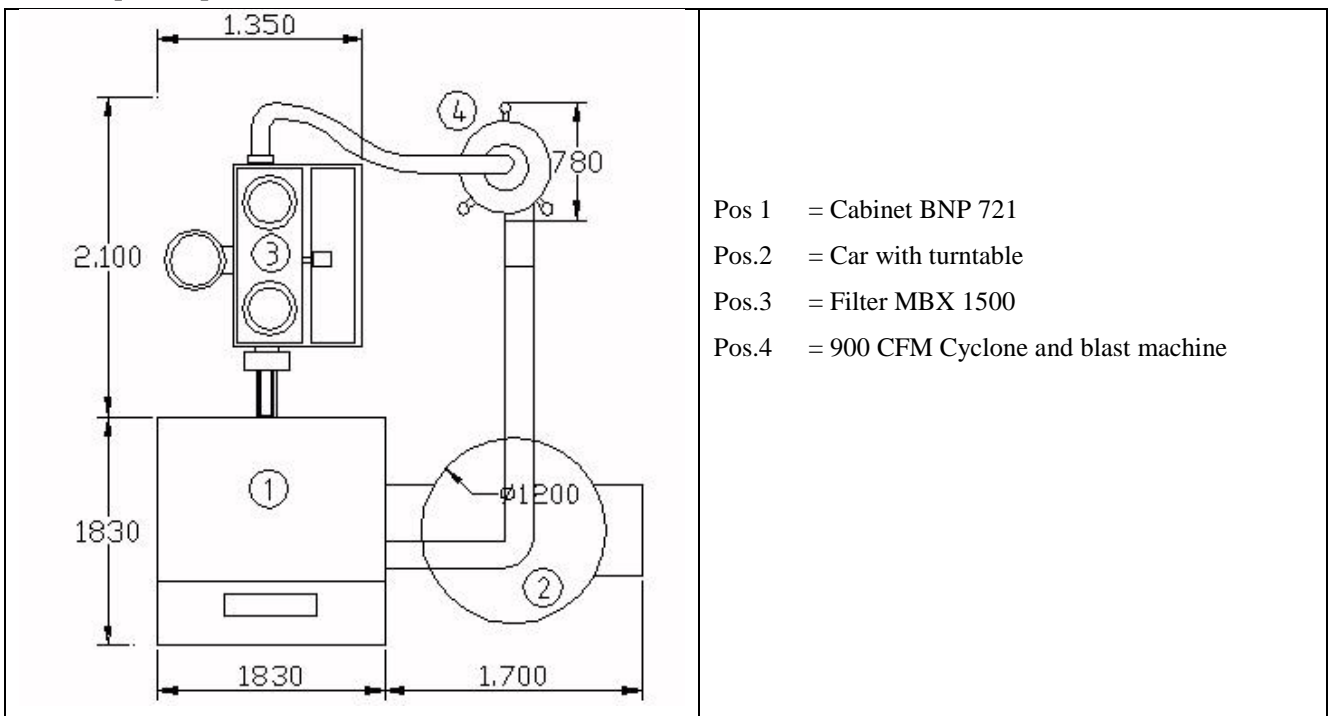
3.3.3 Required space for BNP 601



- Pos 1 = Cabinet BNP 601
- Pos.2 = Car with turntable
- Pos.3 = Filter MBX (1500;2000)
- Pos.4 = 900 CFM Cyclone and blast machine

Picture 4a: Required space for BNP-601











3.3.4 Required space for BNP 721



- Pos 1 = Cabinet BNP 721
- Pos.2 = Car with turntable
- Pos.3 = Filter MBX 1500
- Pos.4 = 900 CFM Cyclone and blast machine

Picture 4b: Required space for BNP-721

3.4 Set-up, assembling and operation checkout

<p><i>Cabinet set-up.</i></p>	<p>-Requirements: see yellow cover -Bracing in the floor not necessary</p>
	 <p>Warning! Explosion hazard! Connect only max. admitted pressure</p>
<p><i>Air supply</i></p>	<p>- max. 7 bar - for higher pressures install pressure regulator and safety valve between cabinet and air supply -air hose between air supply and cabinet: + Inner diameter : min 19 mm + Length: max. 10m</p>
<p><i>Filter cartridge dedusting</i></p>	<p>Adjust pressure regulator for dedusting to 5 bar</p>
	 <p>Warning! Risk of injury! Connect electric circuit points only by authorized electrician.</p>
	 <p>Warning! Explosion hazard caused by dust! Ground!</p>
	 <p>Caution! Risk of injury! Ground!</p>
<p><i>Electrical connection and grounding</i></p>	<p>-16A Euro plug connector -Ground cabinet, cyclone and dust collector - min 10 mm² - earth screw in stock, ground wire etc. no shipment</p>
	 <p>Caution! Noise > 80dB(A) Wear ear protection!</p>
<p><i>Operation checkout without media</i></p>	<p>Close the doors. Switch-on electricity (green push button). Control the following:.</p> <ul style="list-style-type: none"> -Is lighting on? -Is the fan motor starting?.Turns the motor in direction of the arrow? Otherwise reverse the polarity. -Is dedusting pulse for cartridge filter activ ? (Interval. ca 40 s) -Take the nozzle in your hand and press the foot pedal.. Is the blast process starting?

	-Step on the foot pedal und open left resp. right door (2. person. Is the blast process stopping? Test cabinet with media, if no irregularities can be detected. Otherwise remedy errors. Therefor see section 6.
<i>Media loading</i>	<ul style="list-style-type: none"> - Exhauster off. - add media slowly into reclaiming hopper through the reclaiming door (blast pot). - Media capacity (initial fill) <ul style="list-style-type: none"> +Blast machine: 20l: 12l abrasive +Blast Machine : 40l: 25l abrasive +Blast machine: 100l: 60l abrasive +Blast machine: 200l: 120l abrasive
<i>Operation checkout with media</i>	<ul style="list-style-type: none"> -Close doors. - adjust blast pressure. -Hold nozzle in direction grate. Step on the foot pedal → Blast process starts Check, if dust passes of (second person). Critical zones: <ul style="list-style-type: none"> -Doors -suction hose connections -Connections between dust collector and dust container. Leak tightness can be remarked only during dedusting.

4 Instruction handbook

4.1 Set up and operation, Shut down

<i>Turn on air supply</i>	
<i>Adjust blast pressure</i>	
<i>Switch on electricity</i>	Main switch and green push button
<i>Load parts to be blasted into the cabinet</i>	Close doors
<i>Blasting</i>	Hold blast gun/nozzle and step on the foot pedal
<i>Blow off media</i>	Clean parts with blow off gun
<i>Disconnect electricity</i>	<ul style="list-style-type: none"> -Main switch - Red push button - Dedusting process works still for ca. 5 min
<i>Disconnect air supply</i>	

4.2 Emergency stop

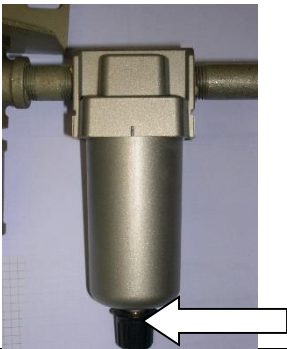
<i>Push emergency stop button</i>	Electrical supply is disconnected, dedusting too
<i>-depressurizing the installation</i>	see 4.4.1
<i>Clarification of causation</i>	see 6.

4.3 Shut down by longer interruption of work or moving the cabinet


Remove media	see 4.4.4.
Disconnect electricity	Authorized electrician
Depressurize installation	see 4.4.1.

4.4 Special procedures

4.4.1 Depressurizing

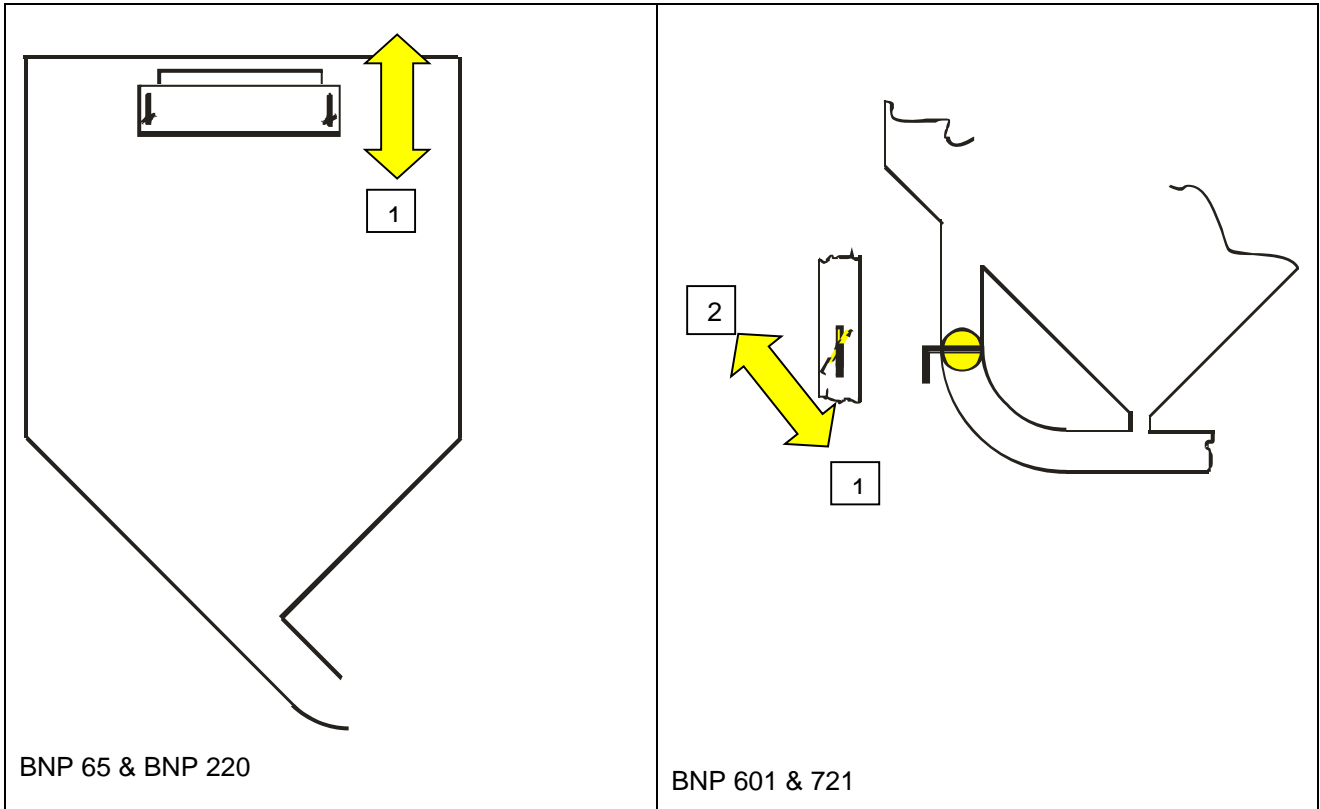
<p>Close external air supply</p>		<p>Depressurize moisture separator over drain screw</p>
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4.4.2 Adjust media / air mixture

	<ul style="list-style-type: none"> - Close media metering valve on the blast machine (direction 1) - open step by step; jet is ok when the blast media comes out the nozzle as a light mist
<p>Pneumatic PT-valve</p>	
	<ul style="list-style-type: none"> - Close metering valve - open step by step. Blast jet is ok when the blast media comes out the nozzle as a light mist

4.4.3 Negative pressure, view, media consumption and flow

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Damper	Negative pressure	View	Media exhausting / Consumption	Media suction
1	lower	better	higher	better
2	higher	worse	lower	worse

4.4.4 Media unloading

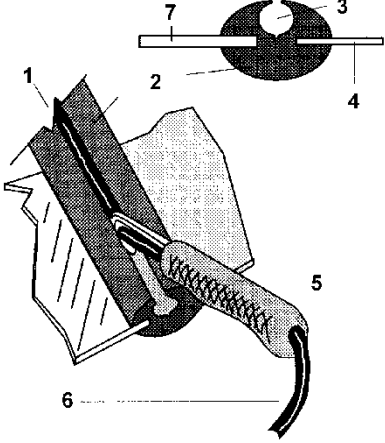
Turn on exhauster	Green push button
Unloading the blast pot	<ul style="list-style-type: none"> - Close choke valve on the blast pot - fully open media metering valve - Blasting pressure: low as possible - unscrew nozzle and nozzle holder - put a container such as a bucket on the cabinet grating - hold hose into the container - press foot pedal → direct media flow into the container
Cleaning cabinet	<ul style="list-style-type: none"> -closed doors -exhauster is working -with blow off nozzle
Unloading the reclaimers / cyclone	-open door and remove media into the blast pot
Unloading blast pot again	-only residues

4.4.5 Pulsing (cleaning) dust collector cartridge / replace cartridge / disposal of residues

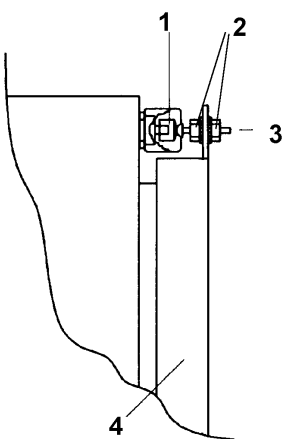
Replace cartridge	<ul style="list-style-type: none"> - pulse filter cartridge two times -start again cabinet and turn off after more than 2min → + ca. 5 minutes dedusting pulse - push emergency stop
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	<ul style="list-style-type: none"> - close air supply - depressurize installation (see 4.4.1) - unscrew filter cover - pull a (≥ 120 l) plastic bag over the filter cartridge - unscrew the nuts on the flange and pull out the filtercartridge with the plastic bag. - screw the new filter cartridge and take care of the position of the seal kit. - Close dust collector cover
Empty dust container	<ul style="list-style-type: none"> -release the dust container from the cover <p>WARNING! If toxic residues, dispose dust as hazardous waste!</p>

4.4.6 Window replacement

	No.:	Description
	1	Filler strip
	2	molding
	3	Place for filler strip
	4	Cabinet wall (fits into narrow slot)
	5	Window tool
	6	Filler strip
7	window (fits into expanded slot)	
<i>Pull filler strip from the window molding</i>		
<i>Remove window</i>		Push the window from the cabinet inside
<i>Install a new window molding</i>		Strip channel facing the front of the cabinetg
<i>Install window</i>		Push into the slot
<i>Thread filler strip</i>		With installation tool

4.4.7 Adjust door safety interlock

	Nr.:	Description
	1	Door safety interlock
	2	Nut for screw adjusting
	3	Actuating screw for safety interlock
4	Cabinet door	

5 Maintenance and cleanse

5.1 Preface

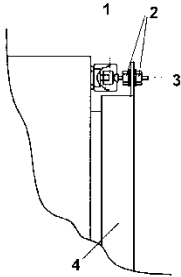
During operation the cabinets are exposed to wear. In order to ensure safe operation and high efficiency the blast machines must be maintained regularly.

		<p>Warning! Risk of injuri!</p> <p>Discharge completely pressure during maintenance jobs. (see 4.4.1)</p>
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5.2 If required

	Check and if necessary. replace /cleanse
View window	-cover lenses -if necessary window glass – see 4.4.6
gloves	

5.3 After max. 8 h of blasting

	Check and if necessary. replace /cleanse
Door interlock 	-Open doors - press pin (1). It has to return from alone.
Empty dust container.	- could be necessary already after one hour
Media recovery system (Reclaimer).	-empty screen → Turn off exhauster. This may be necessary more often - screen magnet .
Nozzle and nozzle holder	Check gasket for wear and replace if it's necessary

5.4 After max. 50 h of blasting

	Check and if necessary. replace /cleanse
(1) Blast gun and nozzle	Nozzle gasket.
(2) Moisture separator.	Clean filter and sight glass with soap and warm water
(3) Air hoses and blast hoses.	- gaskets of couplings for wear -blast hose by hand for soft spots
(4) Blast pot	- pop up valve for wear by hand -Verschleiß Verschußkegel durch Abtasten mit Fingern überprüfen

5.5 After max. 150 h of blasting

(1) Gasket on cabinet doors.	
(2) Filter cartridge.	- see 4.4.5



5.6 After other periods of time

	replace (even without wear) after maximal
Blast hoses	6 years
Remote control hoses	6 years
Air hoses – external air supply	6 years
O-rings	5 years
Pop up valve (blast pot)	5 years
Gaskets	5 years

6 Troubleshooting

<i>Problem</i>	<i>Probable cause</i>	<i>Remedy</i>
(1) Poor visibility.	Exhaust motor does not rotate.	
	Slide damper in false position	See 4.4.3
	Dirty filter cartridge.	Blow off filter cartridge. replace (see 4.4.5).
	Exhaust motor rotates in the wrong direction.	Reverse polarity (only through licensed electrician).
	Blast media breaks down rapidly and creates dust	- lower blast pressure - other media.
	Blocked hose between blast cabinet and reclaimer / cyclone	Check and if necessary disassemble hose and remove dust and media. Blockage is not the real cause.
	Negative pressure.	Check the following components: - Reclaimer door open or leaky. - Test the connections of hose for leaks - Suction hoses for wear. - Dust leaking from dust container
(2) Abnormally high media consumption.	Cyclone door open or leaky.	Replace gasket.
	Too fine or too lightweight media.	Install and adjust supplementary a Vortex cylinder.
	Negative pressure too high	See 4.4.3
(3) Poor cleaning rate.	Not enough blast media in circuit.	Check and if necessary refill.
	Media metering valve is adjusted incorrect	A new adjustment is necessary (see 4.4.2).
	Reduced air-pressure	- Check air supply - If the static pressure decreases during blasting, the following components should be checked :

		<ul style="list-style-type: none"> + moisture separator + pressure regulator + nozzle
	Blocked blast hose or gun / nozzle.	<ul style="list-style-type: none"> - Push nozzle against an elastical object (for example rubber plate) and step on the foot pedal. - Disassembly hose or gun and cleanse. - Search after the cause of blockage: <ul style="list-style-type: none"> ⇒ Missing or overfilled screen in the reclaimer. ⇒ Incorrectly adjusted metering valve. ⇒ Too heavy blast media.
	Worn nozzle	-remove / change nozzle
	Moist blast media.	<ul style="list-style-type: none"> - Frequent bridging or blockage in the media metering valve can be caused by moist blast media. Following reasons could be possible: <ul style="list-style-type: none"> ⇒ Media was filled moistly → remove ⇒ Humidity from air supply → interconnect humidifier ⇒ Perspiration water caused by sharp drop in room temperature → Make sure, that there is not too much temperature fluctuation
(4) <i>Dust comes out the blower</i>	Dust filter gasket defective.	-replace gasket -see 4.4.5
	Defective cartridge.	- replace cartridge -see 4.4.5
(5) <i>Static shocks</i>		<ul style="list-style-type: none"> - improve grounding of the cabinet. - in exceptional cases use supplementary ground wire between blast gun and cabinet wall
(6) <i>No air and no media comes out the nozzle</i>	Door interlocks are not actuated	Adjust pin resp. door fixing bzw. see 4.4.7
	Wrong connection of pneumatic hoses on foot pedal → permanent air blow off	<ul style="list-style-type: none"> - only when foot pedal was new installed - connect properly
	Polluted (blocked) moisture separator.	Cleanse moisture separator
	Hose of control lines leaky	<ul style="list-style-type: none"> - need of second person - first person „is blasting“ - second person checks leakages on controles lines
(7) <i>Air only (no media) comes out the nozzle</i>	No blast media in the blast circuit	refill
	Moist media	<ul style="list-style-type: none"> -Remove moist media. -Remove cause for humid air supply.

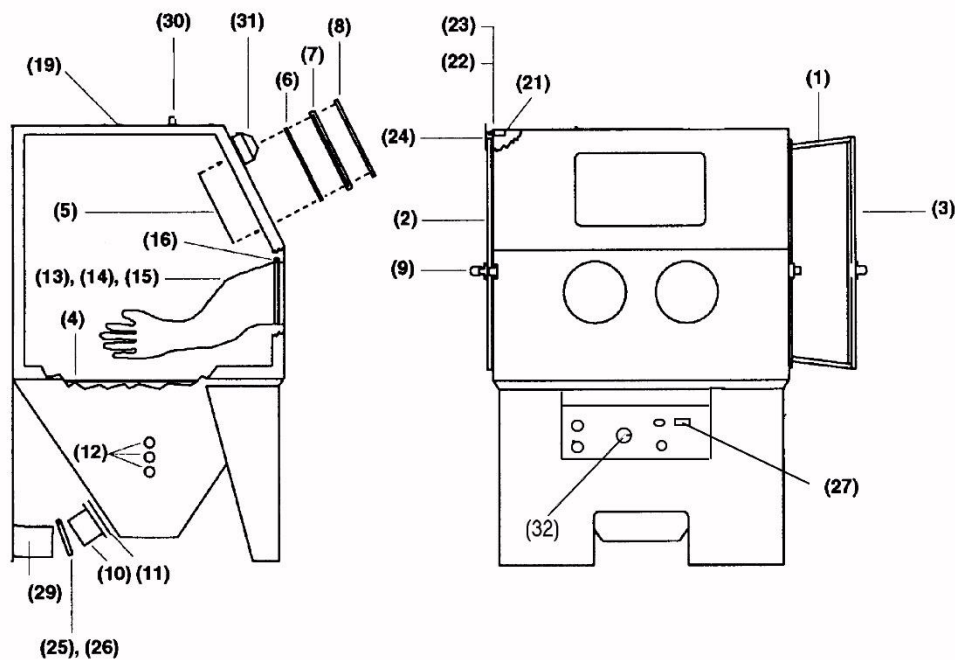
		Caution! Risk of injury! Discharge completely pressure during maintenance jobs.
(8) No interruption of blast process when foot pedal is released	Foot pedal valve blocked.	- depressurize the installation (see 4.4.1) - replace foot pedal valve
(9) Irregular flow or too much blast media comes out the nozzle	Incorrect adjusted media flow.	Adjust new (see 4.4.2).
(10) Media remains in the suction hose	Incorrect adjusted negative pressure	See 4.4.3
	Media too heavy	Use other media

7 Admitted modifications for users

Only with the approval of the producer! Otherwise the installation will lose guarantee and CE-certification.

8 Replacement parts

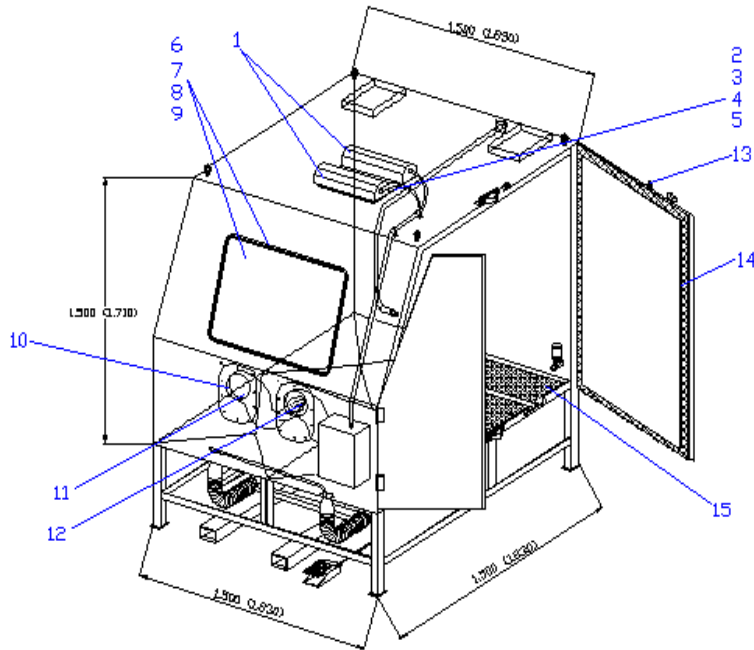
8.1 Replacement parts BNP 65, BNP 75, BNP 85 and BNP 220



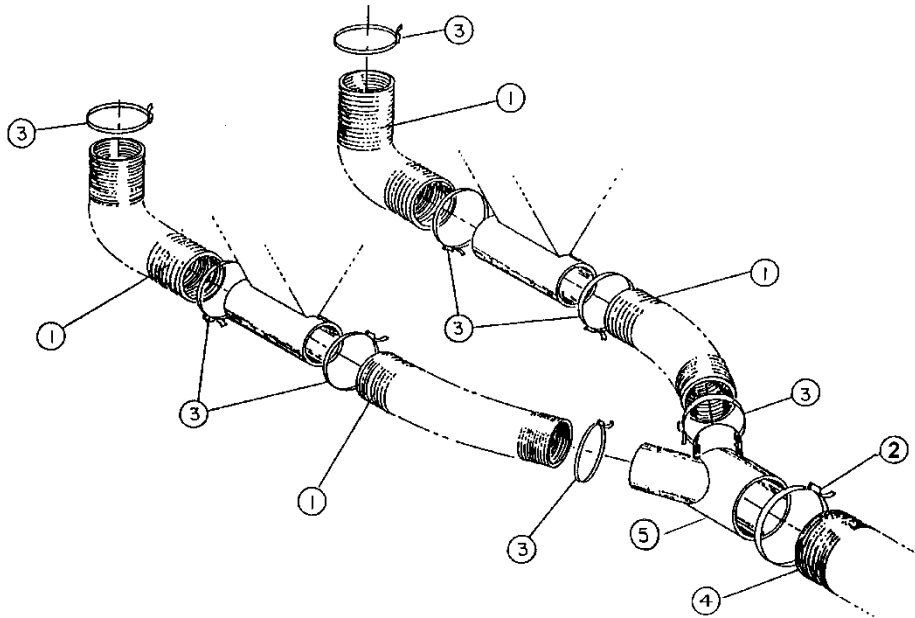
Pos.	description	BNP 65 / BNP 75	BNP 85 / BNP 220
(1)	Door gasket per m	12434Z	12434Z
(2)	Left door complete (blue)	100326	100328
(3)	Right door complete (blue)	100327	100329
(4)	Gate	11811Z	11810Z
(5)	Change frame mylar - small	100960	100960

-	Glass change frame-small	100991	100991
-	Chain /m (necessary 0,5m)	24273Z	24273Z
-	Door gasket (2m)	12434Z	12434Z
-	Star handle IG M8	100551	100551
(6)	Window glass - small (security glass)	12212Z	12212Z
(7)	Gasket	12435Z	12435Z
(8)	Filler strip	12436Z	12436Z
(9)	Door opener special for cabinet	99585Z	99585Z
(10)	Adaptor Ø 100 mm / 4"	12376Z	-
	Adaptor Ø 125 mm / 5"	-	12377Z
(11)	Gasket Ø 100 mm / 4" for adaptor	11776Z	-
	Gasket Ø 125 mm / 5" for adaptor	-	11777Z
(12)	Grommet for air hose	11798Z	11798Z
(13)	Rubber gloves pair	99159Z	99159Z
(14)	Rubber glove, left	12710Z	12710Z
(15)	Rubber glove, right	12711Z	12711Z
(16)	Clamp (for gloves)	11576Z	11576Z
(19)	Grommet (for blast hose 6 mm)	12762Z	12762Z
(21)	Pneumatic valve safety door	12202Z	12202Z
(23)	Bushing safety door valve	15042Z	15042Z
(26)	Clamp f. Ø 100 mm / 4" (wire)	90241Z	-
	Clamp f. Ø 125 mm / 5" (wire)		90260Z
(29)	Suction hose PU Ø 100 mm / 4" per m	12447Z	-
	Suction hose PU Ø 125 mm / 5" per m	-	12449Z
(31)	Lamp complete (less regulator)	19574Z	19574Z
(-)	Lamp holder	11843Z	11843Z
(-)	Lamp	11872Z	11872Z
	Y-150x100x100 – for MBX 1500	11379Z *only BNP 75	11379Z * only BNP 85
	Y-180x125x125 – for MBX 2000	No part number.	No part number.

8.2 Replacement parts BNP 601 and 721



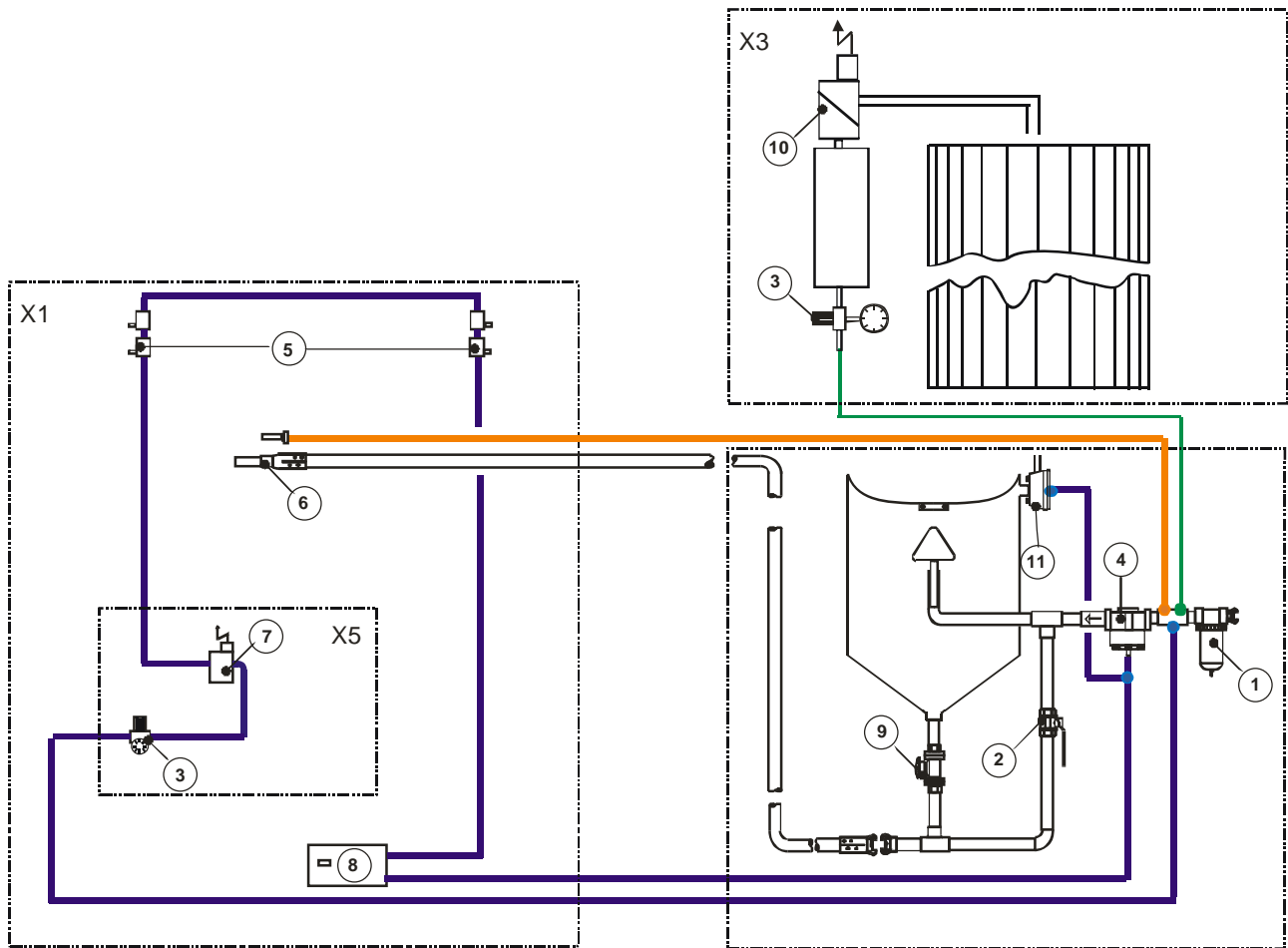
Pos.	Description	BNP 601	BNP 721
(1)	Lamp complete	100695	100695
(2)	Mylar lens (small window glass)	06190Z	06190Z
(6)	Mylar lens (large window glass) – 5 pcs.	100661	100661
(3)	Filler strip for: - window glass-small (1,85 m)	12436Z	12436Z
(7)	- window glass-large (2,80 m)	100963	100963
(4)	Gasket window glass for: - window glass-small (1,85 m)	12435Z	12435Z
(8)	- window glass-large (2,80m)	100962	100962
(5)	Window glass - small	12212Z	12212Z
(9)	Window glass - large	12213Z	12213Z
	Change frame complete	100959	100959
	Gasket 3 m	12434Z	12434Z
	Star handle	100551	100551
	Glass change frame small	100991	100991
(10)	Clamp for glove	11576Z	11576Z
(11)	Rubber glove, left	12710Z	12710Z
(12)	Rubber glove, right	12711Z	12711Z
	Rubber gloves-pair	99159Z	99159Z
(13)	Door opener special for cabinet	11879Z	11879Z
(14)	Door gasket	90233Z	90233Z
(15)	Grating (4 pcs. / cabinet)	100367	100394
	Control box - complete	100402	100402



Picture12: Replacement parts BNP-601 and 721

Pos.	Description	601	721
(1)	Suction hose Ø 100 mm / 4" PUR	12447Z	12447Z
(2)	Clamp Ø 150 mm / 6" Draht	90261Z	90261Z
(3)	Clamp Ø 100 mm / 4" Draht	90241Z	90241Z
(4)	Suction hose Ø 150 mm / 6"	12452Z	12452Z
(5)	Y-piece 150-100-100	12379Z	12379Z

8.3 Pneumatic circuit



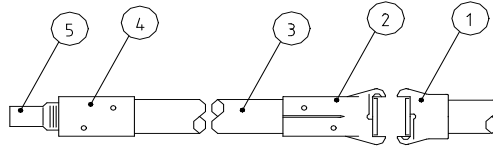
Pos.	Description	For blast machine with piping 1/2"	For blast machine with piping 1 1/4"
1	Water separator	90256D	90545D
3	Pressure regulator 1/4" (Pilot regulator) Gauge (front mounting)	100061 11831Z	100061 11831Z
4	Pressure regulator	10709Z	10711Z
5	Pneumatic valve safety door	12202Z	12202Z
ohne	Bushing safety door valve	15042Z	15042Z
6	Nozzle holder , nozzle	See 8.5	See 8.5
7	E-valve 1/8"	100741	100741
8	Foot pedal Pulsar	06266Z	06266Z
9	Media metering valve	see 8.4	see 8.4
10	Diaphragm valve	See additional owner's manual „dust collector „	See additional owner's manual „dust collector „
11	Outlet valve	see 8.4	see 8.4
ohne	Air hose 1/8" (per m) - brown	12475Z	12475Z

* Other blast machines possible. See in additional owner's manual „ Blast machine“

8.4 Blast machine

See additional owner's manual

8.5 Nozzles, Blast hose, Couplings, etc



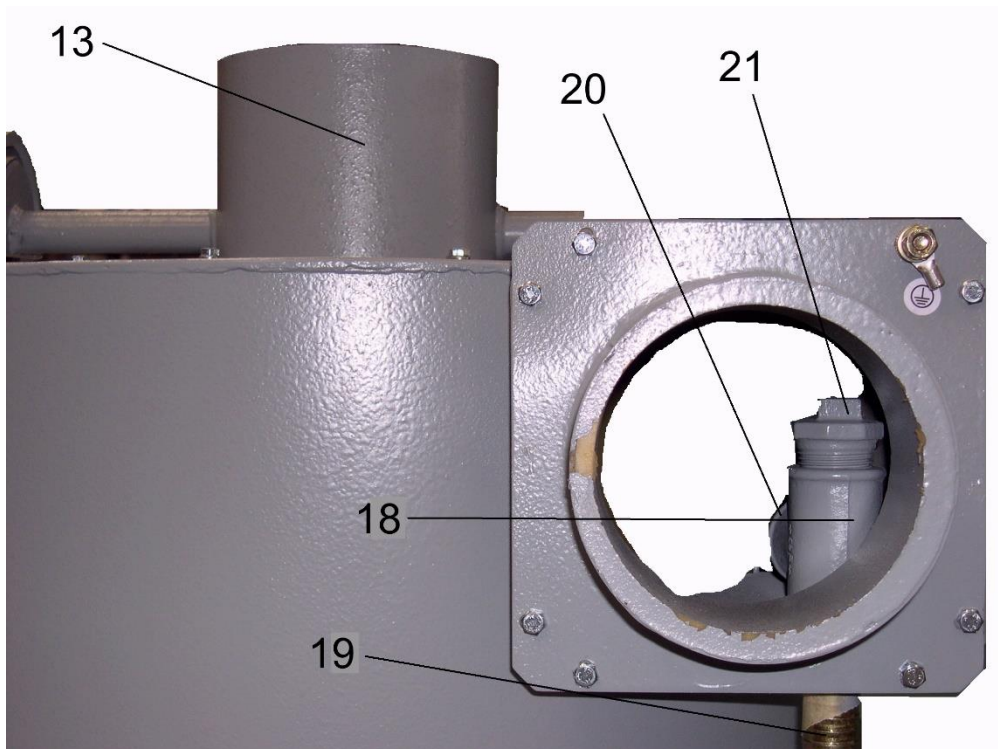
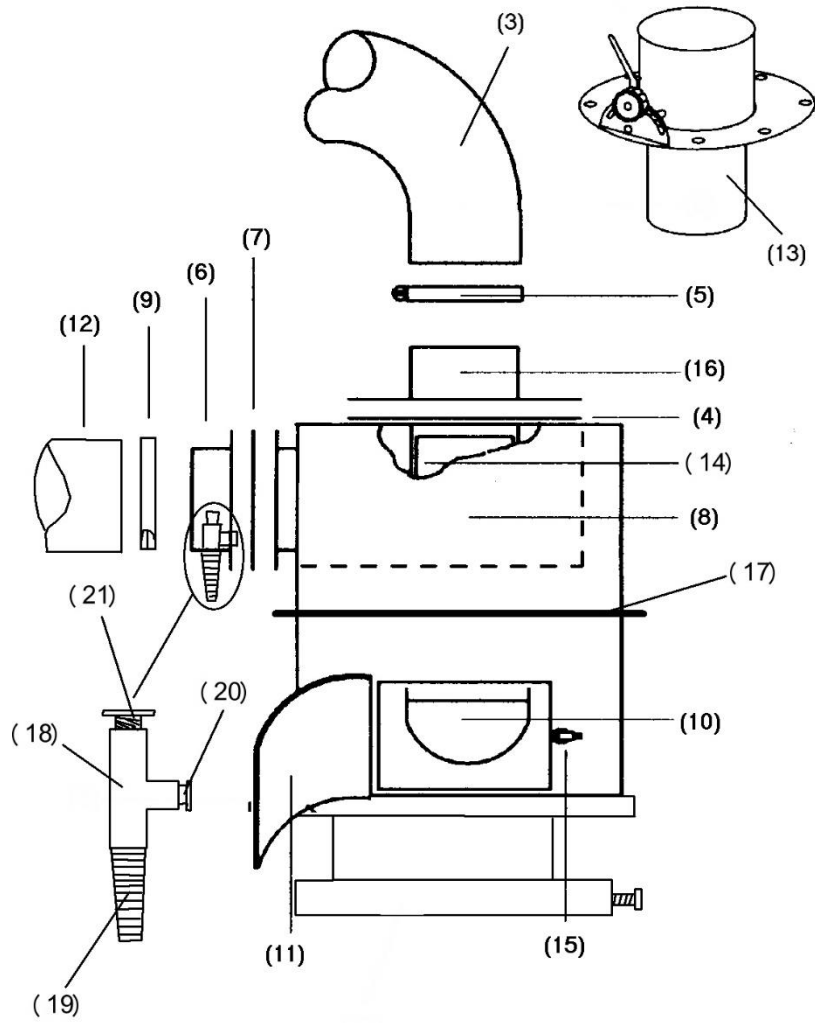
Pos.	Description	For blast machine with ½" piping	For blast machine with 1 ¼" piping
(1)	CFB-0 –Brass coupling ½" (pot)	90257D	
	CFT –Iron cast coupling 1 ¼" (pot)	-	91011D
(2)	CQB-0 –Brass coupling for 13 x 7,5	90258D	
	CQP ¾" Plastic coupling for 19x7	-	94350D
(3)	Blast hose 13 x 7,5 pro m	04257D	-
	Blast hose 19 x 7 pro m	-	04301D
(4)	NHP-0 nozzle holder f. blast hose 13x7,5	90269D	-
	NHP-¾" nozzle holder f. blast hose 19x7		99204D
(5)	Nozzles with coarse thread 25 mm		
	CB-2/25 Boron carbide nozzle (3 mm)	94210D	-
	CB-3/25 Boron carbide nozzle (4,5 mm)	94211D	-
	CB-4/25 Boron carbide nozzle(6 mm)Standard	94212D	-
	CB-5/25 Boron carbide nozzle (8 mm)	94212D	-
	Nozzles with coarse thread 50 mm		
	CTJG-3 Clemlast TC 4,8mm	-	05288D
	CTJG-4 Clemlast TC 6,5mm	-	05289D
	CTJG-5 Clemlast TC 8mm Standard	-	05290D
(-)	Nozzle holder	100559	100559
(-)	Clamp ZERO 12mm	99868Z	99868Z
	Nozzle holder NHP-0	100567	
	Nozzle holder NHP-1	100568	

8.6 Foot pedal



<i>Pos.</i>	<i>Description</i>	Part no.
(-)	3-way foot valve complete	06266Z
(-)	Silencer 1/4"	90941D
(-)	Pipe plug 1/4"	01950D

8.7 Cyclon pression



Pos.	Part no.	Type	Description
(-)	99959Z	16,8 m ³ /min.	Cyclon, pression, with flange for 1628, 1440 complete
	99533Z	25,4 m ³ /min.	Cyclon, pression, with flange for 2040 complete
	99750Z	25,4 m ³ /min.	Cyclon, pression, with flange for 2452 complete
	99532Z	34 m ³ /min.	Cycklon, pression, with flange for 2452 complete
(3)	12447Z	16,8 m ³ /min.	Suction hose 100mm / 4" per m
	12449Z	25,4 m ³ /min.	Suction hose 125mm / 5" per m
	12452Z	25,4 m ³ /min.	Suction hose 150mm / 6" per m
	12448Z	34 m ³ /min.	Suction hose 180mm / 7" per m
	12470Z	50 m ³ /min	Suction hose 200mm / 8" per m
(4)	99751Z		Gasket per m
(5)	90241Z		Clamp Ø 100mm / 4"
	902610Z		Clamp Ø 225mm / 5"
	90261Z		Clamp Ø 150mm / 6"
	90265Z		Clamp Ø 180mm / 7"
	90277Z		Clamp Ø 200mm / 8"
	90279Z		Clamp Ø 225mm / 9"
(6)	12361Z	16,8 m ³ /min.	Adaptor 125 mm Ø / 5"
	12363Z	25,4 m ³ /min.	Adaptor 150 mm Ø / 6"
	17277Z	34 m ³ /min.	Adaptor 180 mm Ø / 7"
(7)	11746Z		Gasket for adaptor 100 mm Ø / 4"
	11779Z		Gasket for adaptor 125 mm Ø / 5"
	11759Z		Gasket for adaptor 150 mm Ø / 6"
(8)	11985Z	16,8 m ³ /min.	Rubber wear plate
	11982Z	25,4 m ³ /min.	Rubber wear plate
	11980Z	34 m ³ /min.	Rubber wear plate
(9)	90260Z		Clamp 125 mm Ø / 5"
	90261Z		Clamp 150 mm Ø / 6"
	90265Z		Clamp 180 mm Ø / 7"
(10)	13131Z		Screen fine 2-3 mm (old design)
	17028Z		Screen coarse 5mm (old design)
	21265Z		Screen fine (new design) 2-3 mm
	21280Z		Set for screen fixing
	21275Z		Screen coarse (new design) 5 mm
(11)	14271Z		Door
	11745Z		Door gasket cyclon
(12)	12449Z	16,8 m ³ /min.	Suction hose 125 mm Ø / 5" per m
	12452Z	25,4 m ³ /min.	Suction hose 150 mm Ø / 6" per m
	12448Z	34 m ³ /min.	Suction hose 180 mm Ø / 7" per m

(13)	19080Z	16,8 m ³ /min.	Vortex cylinder for cyclon Ø 150 mm
	19084Z	25,4 m ³ /min.	Vortex cylinder for cyclon Ø 180 mm
	19087Z	34 m ³ /min.	Vortex cylinder for cyclon Ø 225 mm
(14)	ohne		Vortex pipe
(15)	12263Z		Door latch
(16)	99970Z	16,8 m ³ /min.	Pipe for cyclon Ø 150 mm (outlet adaptor)
	16832Z	25,4 m ³ /min.	Pipe for cyclon Ø 180 mm (outlet adaptor)
	99610Z	34 m ³ /min.	Pipe for cyclon Ø 200 mm (outlet adaptor)
(17)	100166		Flange ring cyclon devided (Possibility to attach a connection flange)
(18)*	94201D		T-piece 1" No. 130
(19)*	94301D	1"	Hose fitting 1"x25
(20)*	12011D		Plug 1" NPT
(21)*	01701D	1"	Plug 1"
(-)	15580Z		Magnet for screen
(-)	99958Z	1628	Silo with door
	99166Z	2040	Silo 300 mm with door
	99167Z	2452	Silo with door

8.8 Dust collector and blower

See additional owner's manual.

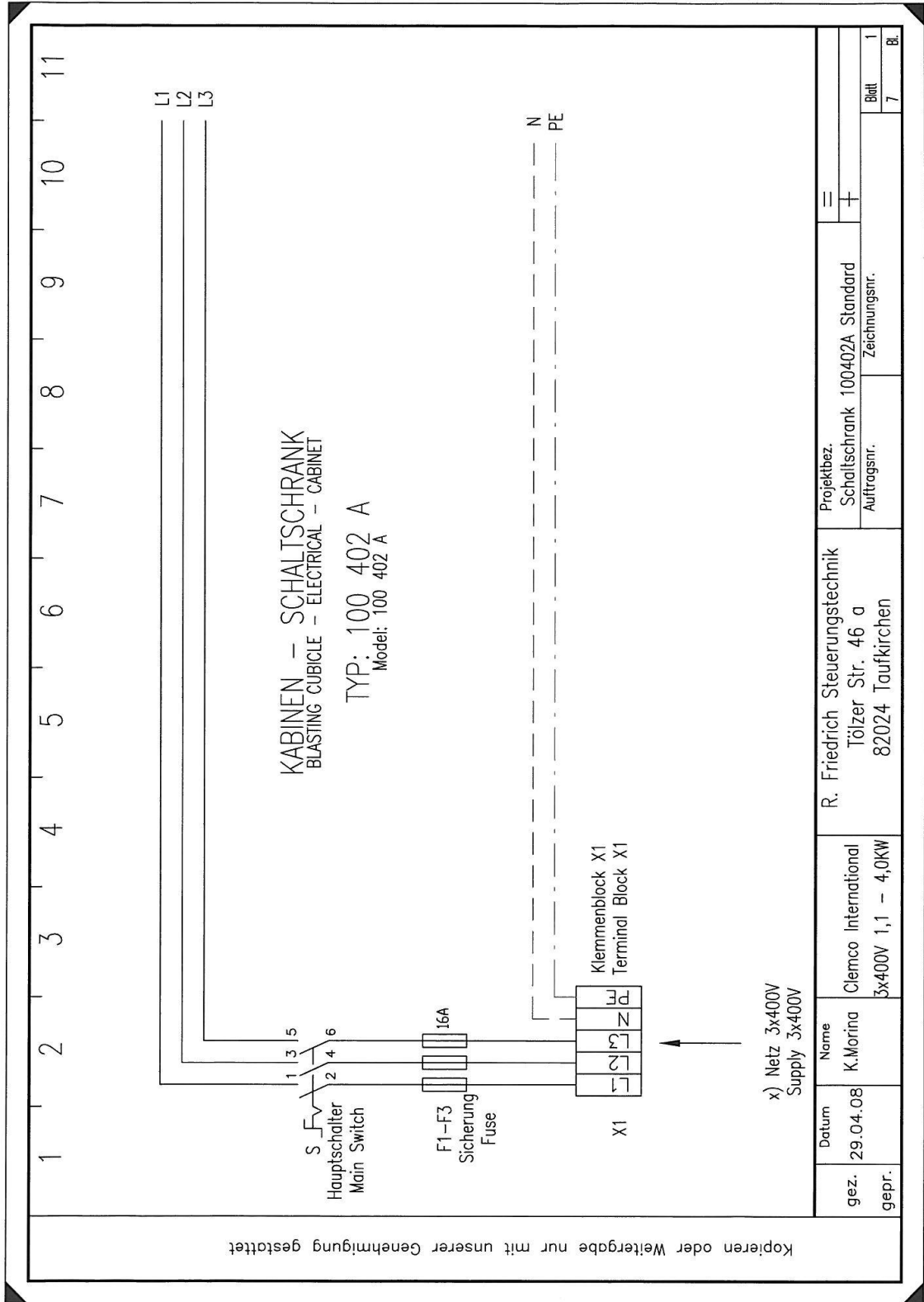
8.9 Control box

Pos.	Description	Part no.:
without	Emergency STOP button	100742
without	Solenoid valve 1/8"	100741
without	Module- Pulsar – see table 8.10 for different voltage and power	
without	Push button (green)	100736
without	Push button (red)	100737
without	Gauge	11831Z
without	Pressure regulator	100061
without	Fuses F1 to F5 per piece – see separate table	
without	Earth screw	100732

8.10 Options - different voltage and power

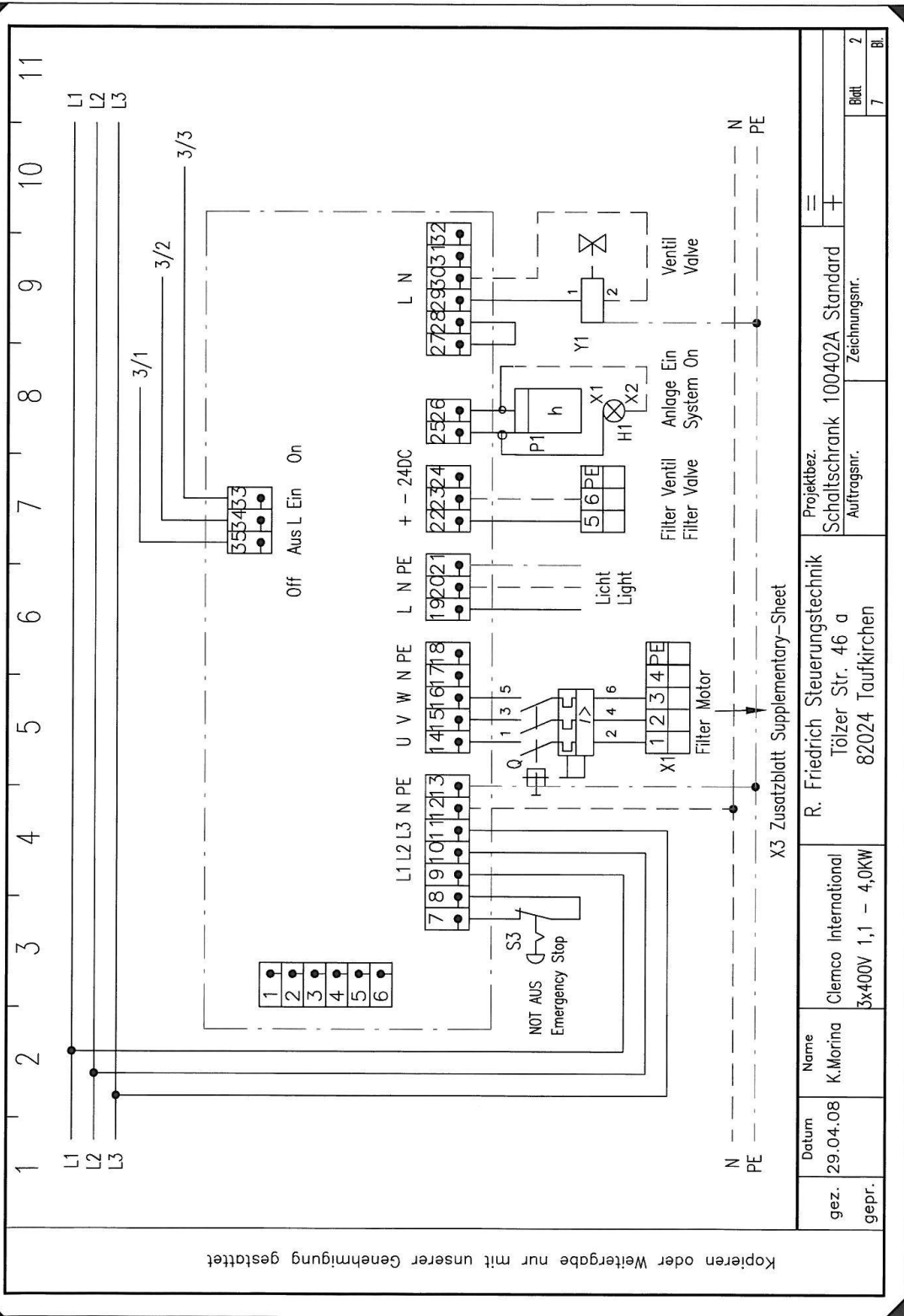
	1,5 kW	2,2kW	4,0 kW
1 x 230 V	X	X	X
3 x 230 V	X	X	X
3 x 400 V	X	X	X
Standard			

8.11 Wiring diagram



gez.	Datum	Name	Projektbez.	
gepr.	29.04.08	K.Morina	Schaltschrank 100402A Standard	+
		Clemco International	Auftragsnr.	7
		3x400V 1,1 – 4,0KW	Zeichnungsnr.	Bl.
				1
				Bl.

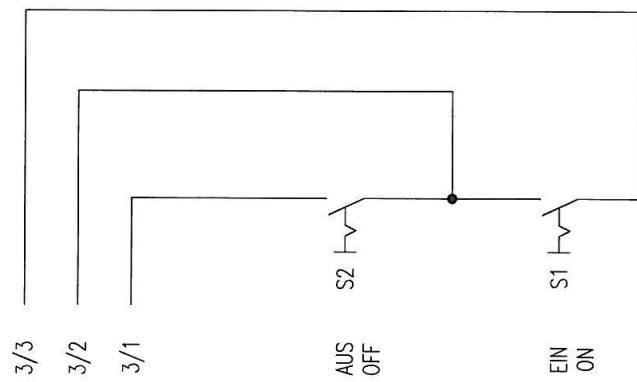
7 3x400V



X3 Zusatzblatt Supplementary-Sheet

gez.	Datum	Name	Projektbez.
gepr.	29.04.08	K.Morina	Schaltschrank 100402A Standard
		Clemco International	Auftragsnr.
		3x400V 1,1 – 4,0KW	Zeichnungsnr.
		R. Friedrich Steuerungstechnik	
		Tölzer Str. 46 a	
		82024 Taufkirchen	
			Blatt 2
			7 Bl.

1 2 3 4 5 6 7 8 9 10 11



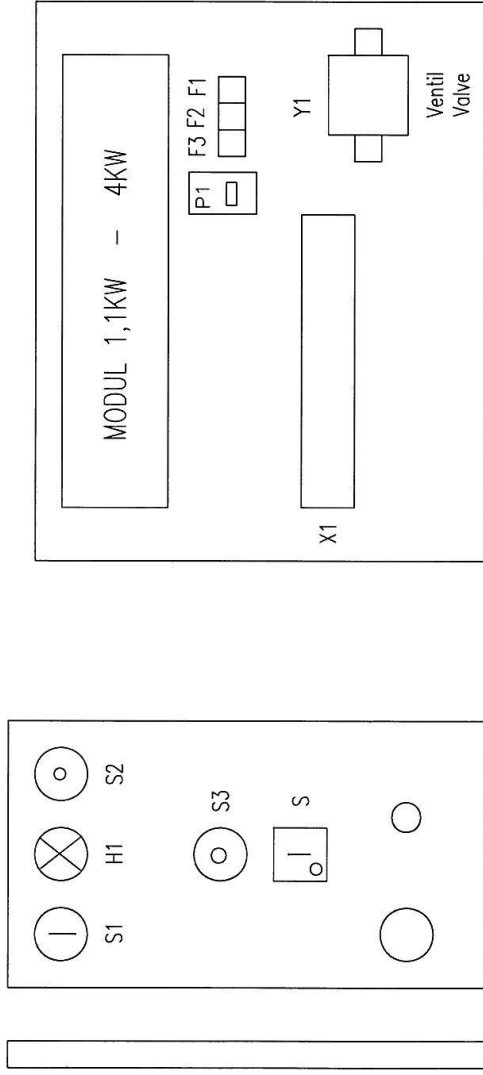
Kopieren oder Weitergabe nur mit unserer Genehmigung gestattet

gez.	Datum	Name	Clemco International	R. Friedrich Steuerungstechnik	Projektbez.	=	
gepr.	29.04.08	K.Morina	3x400V 1,1 – 4KW	Tölzer Str. 46 a 82024 Taufkirchen	Schaltschrank 100 402 A Standard		+
					Auftragsnr.	Zeichnungsnr.	
							Blatt 3
							7 Bl.

Kopieren oder Weitergabe nur mit unserer Genehmigung gestattet

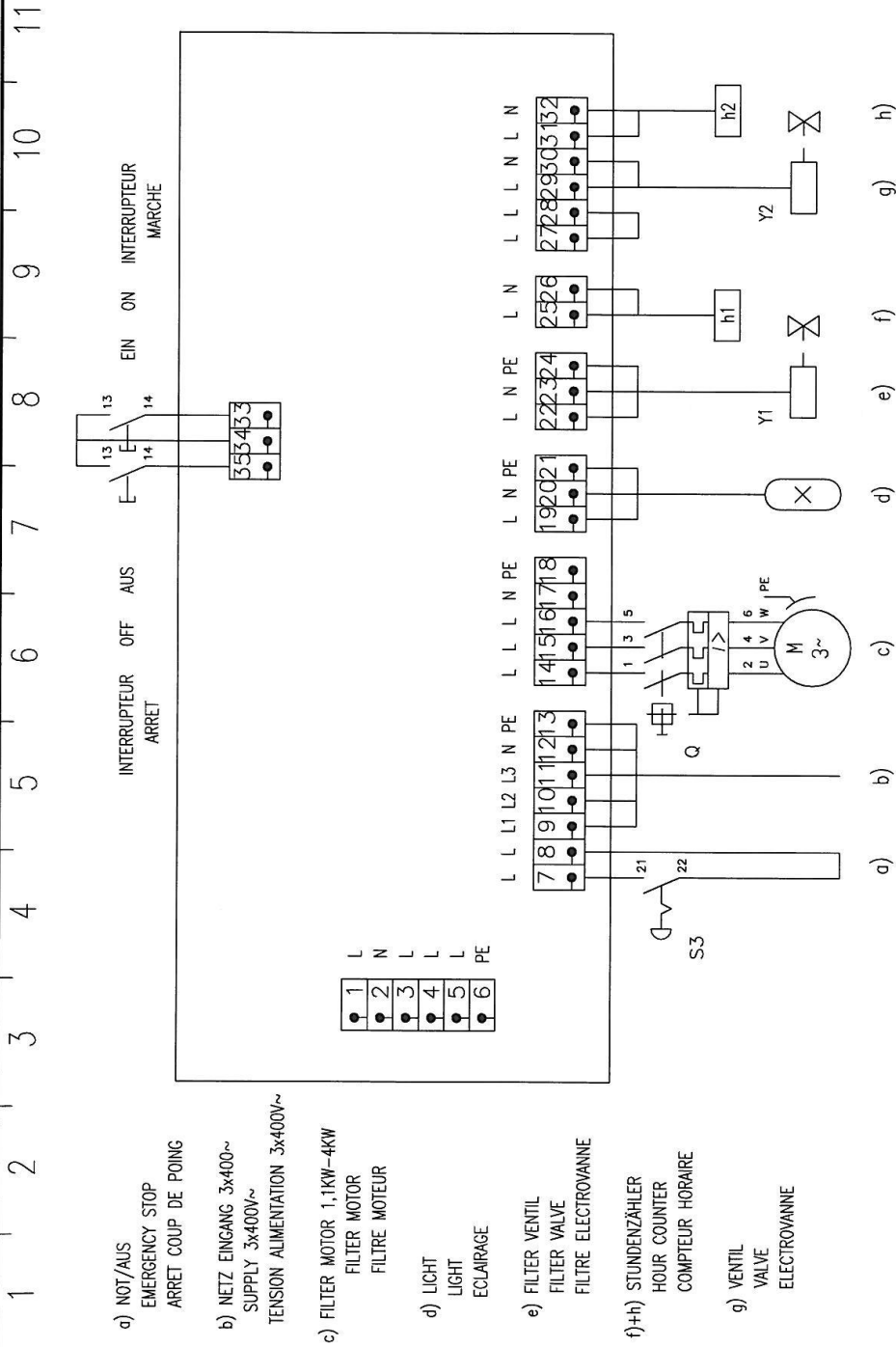
1 2 3 4 5 6 7 8 9 10 11

LAGEPLAN
Mounting-Plan

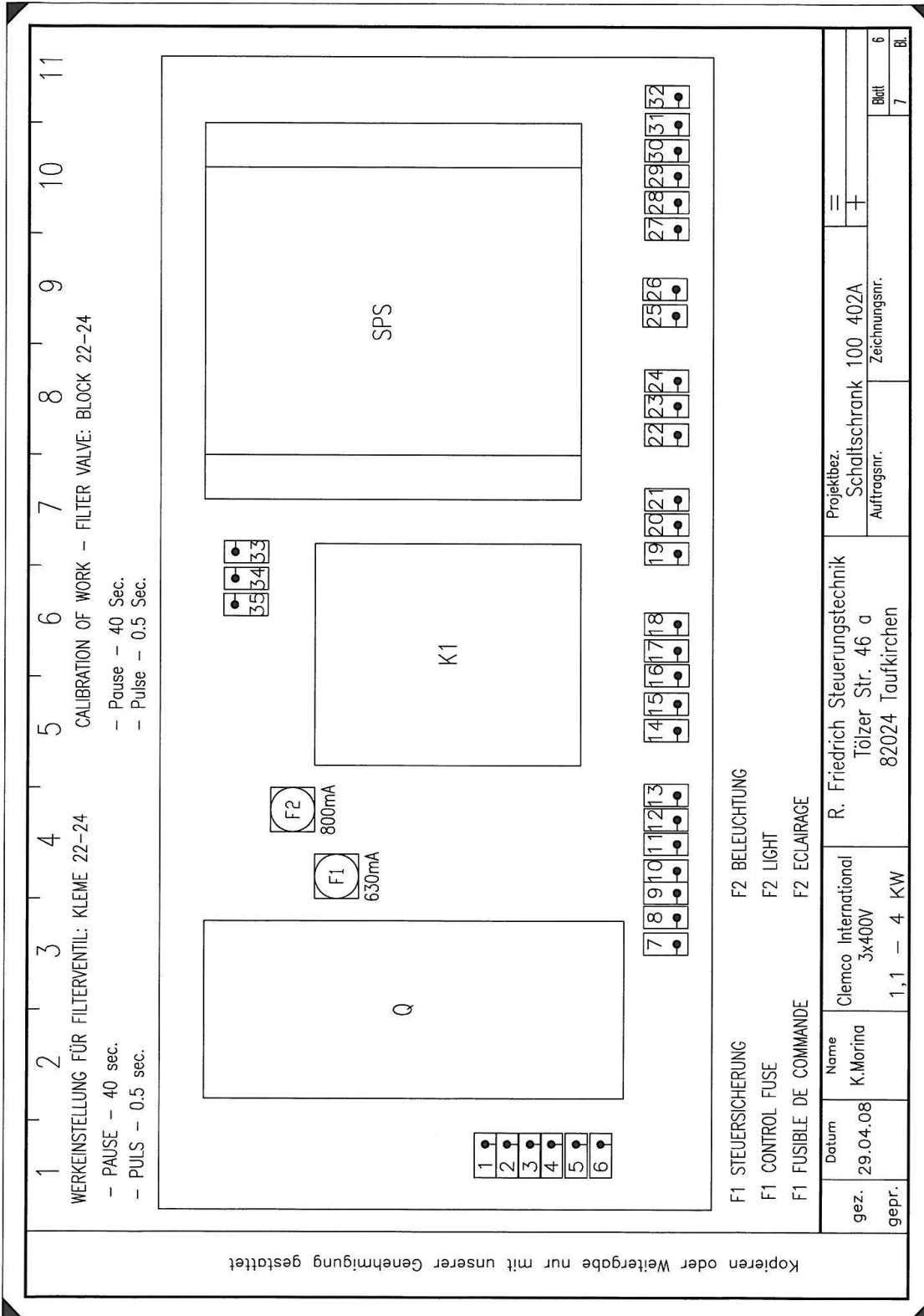


gez.	Datum	Name	Clemco International	R. Friedrich Steuerungstechnik	Projektbez.		
gepr.	29.04.08	K.Morina	3x400V 1,1-4KW	Tölzer Str. 46 a 82024 Taufkirchen	Schaltschrank 100 402 A Standard		
				Auftragsnr.	Zeichnungsnr.		
						Blatt	4
						7	Bl.

Kopieren oder Weitergabe nur mit unserer Genehmigung gestattet



gez.	Datum	Name	Projektbez.
gepr.	29.04.08	K.Morina	Schalttschrank 100402A
		1,1 - 4KW	Auftragsnr.
			Zzeichnungsnr.
			Blatt 5
			7 Bl.



Kopieren oder Weitergabe nur mit unserer Genehmigung gestattet

F1 STEUERSICHERUNG

F1 CONTROL FUSE

F1 FUSIBLE DE COMMANDE

F2 BELEUCHTUNG

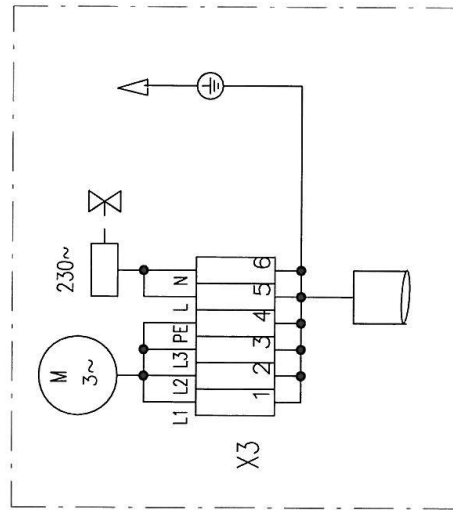
F2 LIGHT

F2 ECLAIRAGE

gez.	Datum	Name	Projektbez.
gepr.	29.04.08	K. Morina	Schaltschrank 100 402A
		Clemco International 3x400V	Auftragsnr.
		1,1 - 4 KW	Zeichnungsnr.
			Blatt
			7
			Bl.

1 2 3 4 5 6 7 8 9 10 11

FILTER-VERTEILER MBX
 FILTER-TERMINAL-BLOCK-MBX



ZUSATZBLATT ZU 100 402A
 SUPPLEMENTARY-SHEET

X1
 7x1,5qmm

Kopieren oder Weitergabe nur mit unserer Genehmigung gestattet

gez.	Datum	Name	Clemco International	Fa. Friedrich Steuerungstechnik Tölzer Str. 46 a 82024 Taufkirchen	Projektbez. FILTER-VERTEILER MBX	=
gepr.	29.04.08	K.Morina				
			Auftragsnr.	Zeichnungsnr.	7	Bl.

8.12 Grounding

<i>Pos.</i>	<i>Description</i>	<i>Part no.</i>
(-)	Earth screw M8 complete with nut, lug and earth washer	100732
(-)	Ground wire 10 mm ² per m	100769

8.13 Options, Accessories

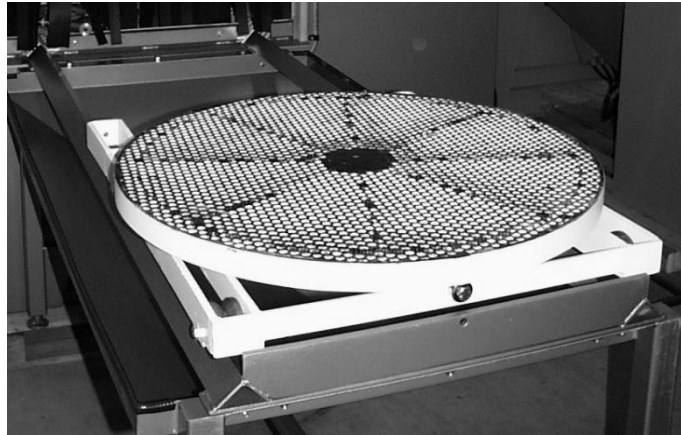


Figure 9: Track assembly: truck, hopper, work car with turntable

<i>Pos.</i>	<i>Description</i>	BNP 65 / 75	BNP 220 / 85	BNP 601	BNP 721	Re-fitting requirements
(-)	Turntable, truck, hopper + work car	13530Z	12835Z	12524Z	12523Z	Opening for rails
(-)	turntable Ø 760 mm only	90881Z	90881Z			
(-)	wheel for work car without bearing			21400Z	21400Z	
(-)	Stationary turntable Ø 760 mm complete	90987Z	90987Z			none
(-)	Gate 300 x 300 mm (per pcs.)	99840Z	99840Z			Openings in door
(-)	Gate 400 x 400 mm (per pcs.)	100282	100282	100282	100282	Openings in door
(-)	Port 300 x 300 mm including mounting	*1)	100283	100283	100283	Openings in door
(-)	Port 400 x 400 mm including mounting	90681Z	90681Z	90681Z	90681Z	Openings in door
(-)	Tumble 4,5 l complete with E-motor 230V (door mounting possible))	*1)	100302	100302	100302	Openings in door Setting electrical connections
	Tumble 30 l complete with E-Motor 230V (door mounting possible)	100549	100549	100549	100549	Openings in door Setting electrical connections
(-)	Tool for window installation	Not recommended	100548	100548	100548	

*1) not possible

8.13.1 Further options

	Re-fittings possibles by customer
Reinforcements for loadings till 5000 N	conditional
Reinforcements for loadings till 20000 N	no
Oscillator horizontal , vertical)	no
Rubber coating	yes
PU coating	no
Grounding the nozzle	yes