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OWNER'S MANUAL

Suction Blast Cabinet

BNP series

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1 Abbreviations, definitions, symbols and icons

	Risk of injuri! Connect electric circuit points only by authorized electrician		Electrostatic strokes! Ground!
	Noise > 85dB(A)! Wear ear protection		Explosion hazard caused by dust! Ground!
	Explosion hazard! Connect only max. admitted pressure.		Risk of injuri! Dicharge completely pressure during maintenance jobs.

2 Product description

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

2.1 Conventional utilization and restrictions

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

2.2 No conventional utilisation – Warnings for misuse

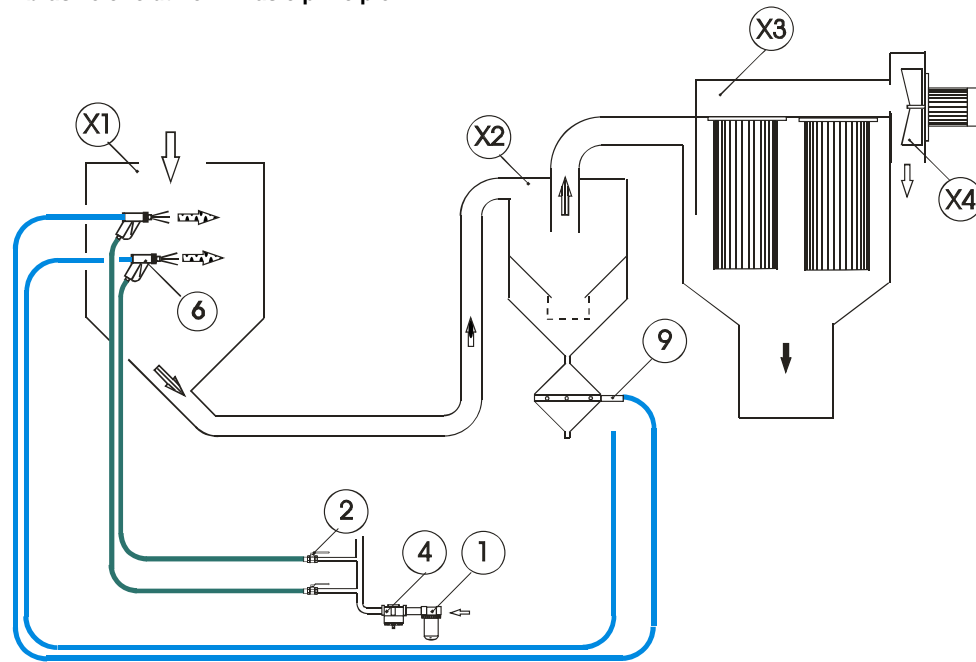
Utilization is interdicted:

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

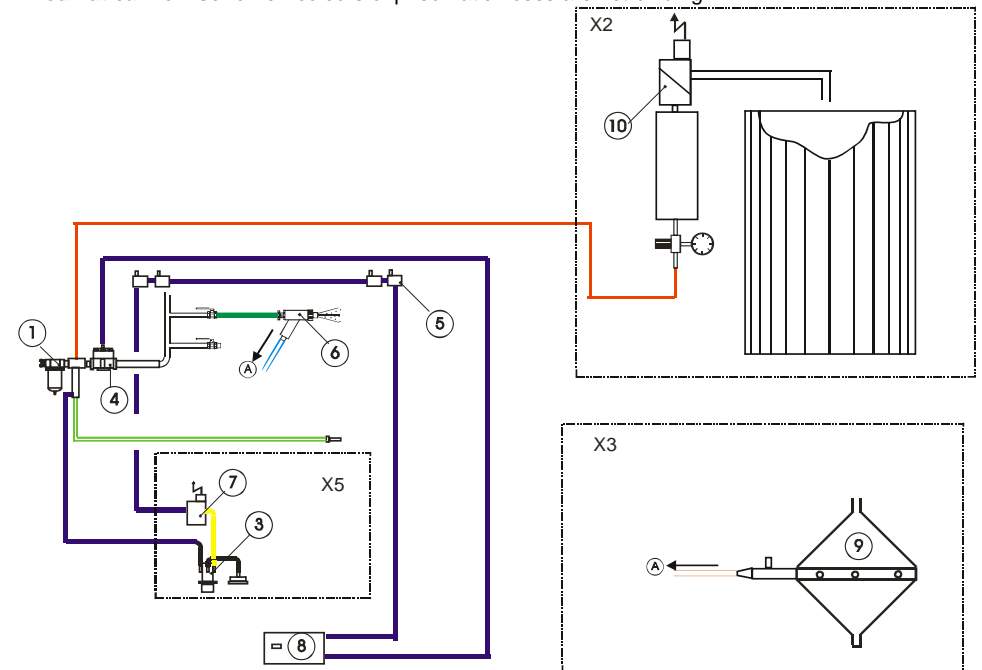
- in explosion hazard zones
- for blasting parts, where hazardous materials were released
 - o by explosion hazards
 - o which where not retained enough by the dust collector
 - o which causes damages caused to somebodys health during a defectuous dust collector

2.3 Operating mode of the complete system

Abrasive circuit flow - Basic principle

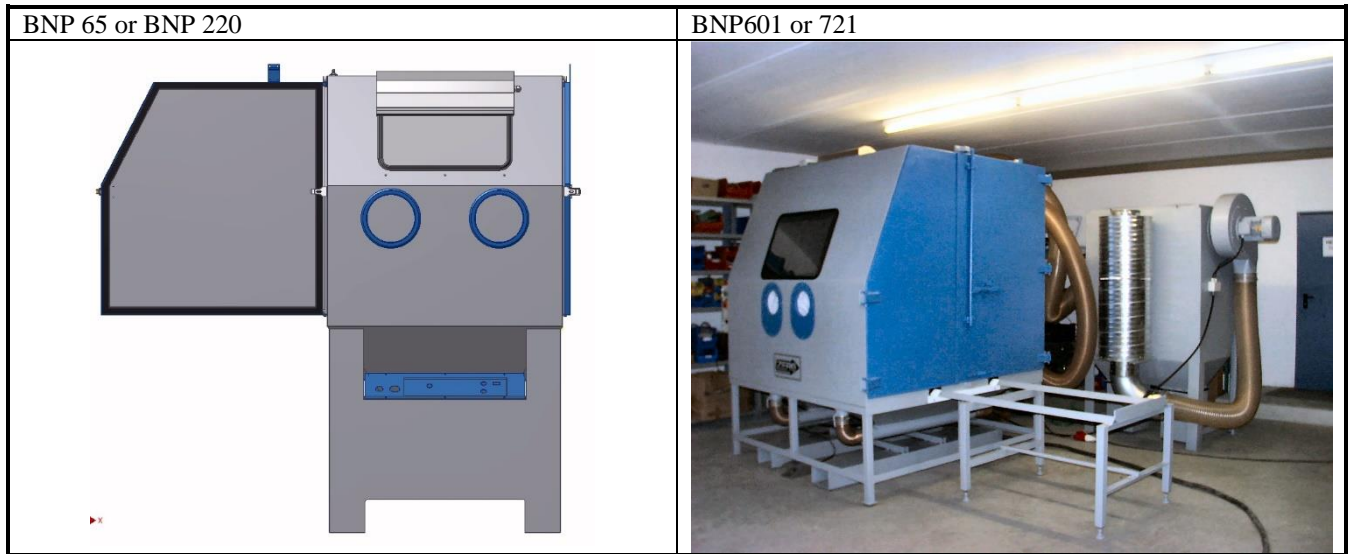


Pneumtical flow scheme - colours of pneumatic hoses are not binding



	Pure air	6	Blast gun
	Abrasive, dust and air	7	3/2-way solenoid valve
	Abrasive and air	8	Foot pedal; 3/2-way valve
	Dust and air	9	Sputnik + Metering valve
	Dust	10	Diaphragm valve /cleaning
1	Moisture separator, dust collector	X1	Blast cabinet
2	Ball valve	X2	Cyclon /Reclaimer
3	1/4 " regulator (pilot)	X3	Cartridge dust collector
4	Pressure regulator (main)	X4	Exhaust muffler
5	Pneumatic door interlock - 3/2-way valve	X5	E-box

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 Dust collector cartridge

- o Standard: cartridge dust collector MBX
- o Automatically cleaning with jet pulse and after running process
- o Recommendations for MBX-Filter
 - o Pulse interval: ca. 40..60 s
 - o Pulse duration: ca. 500 ms
 - o Follow up cleaning: ca. 5min
- o exchangeable cartridge.
- o Dust container

2.4.3 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

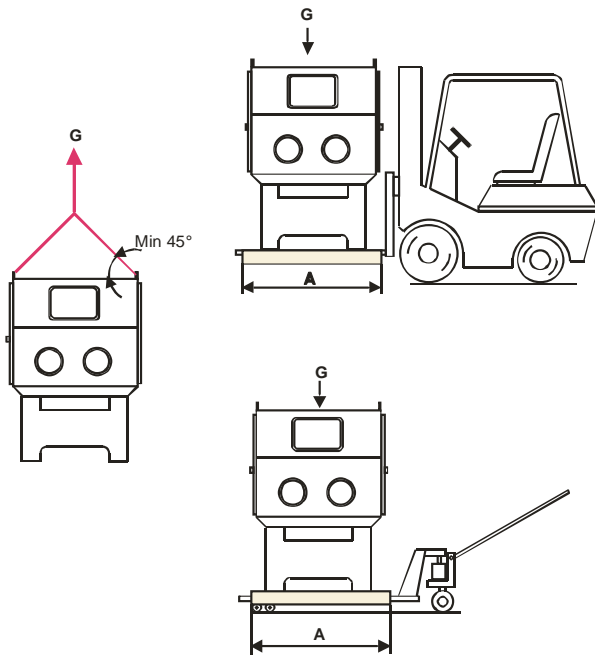
2.6 Emissions

See yellow cover.

3 Set-up for initial installation

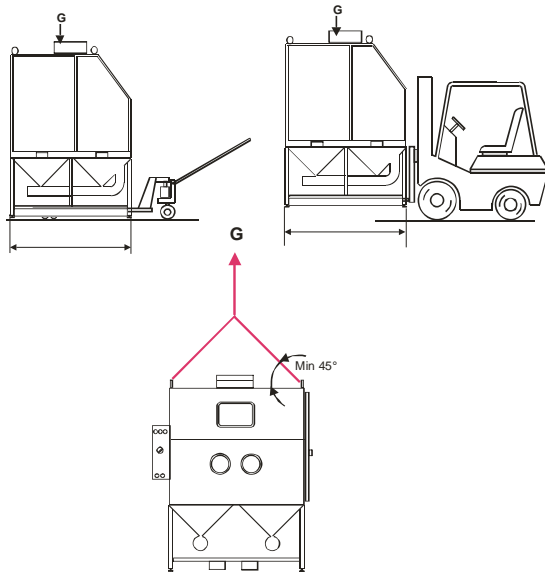
3.1 Carriage / Handling

3.1.1 BNP 65 and BNP 220



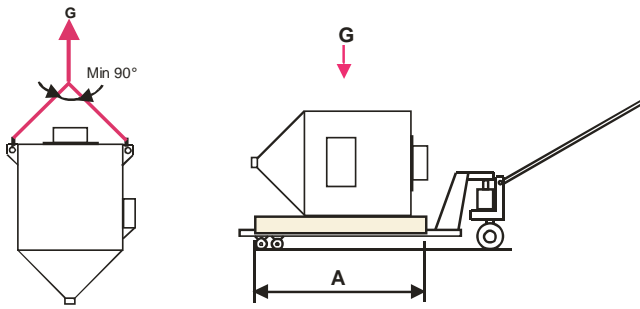
BNP	G (weight)		A (mm)
65	2500 N	250 kg	1100
220	2800 N	280 kg	1450

3.1.2 BNP 601 and BNP 721



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

3.1.3 Cyclone



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

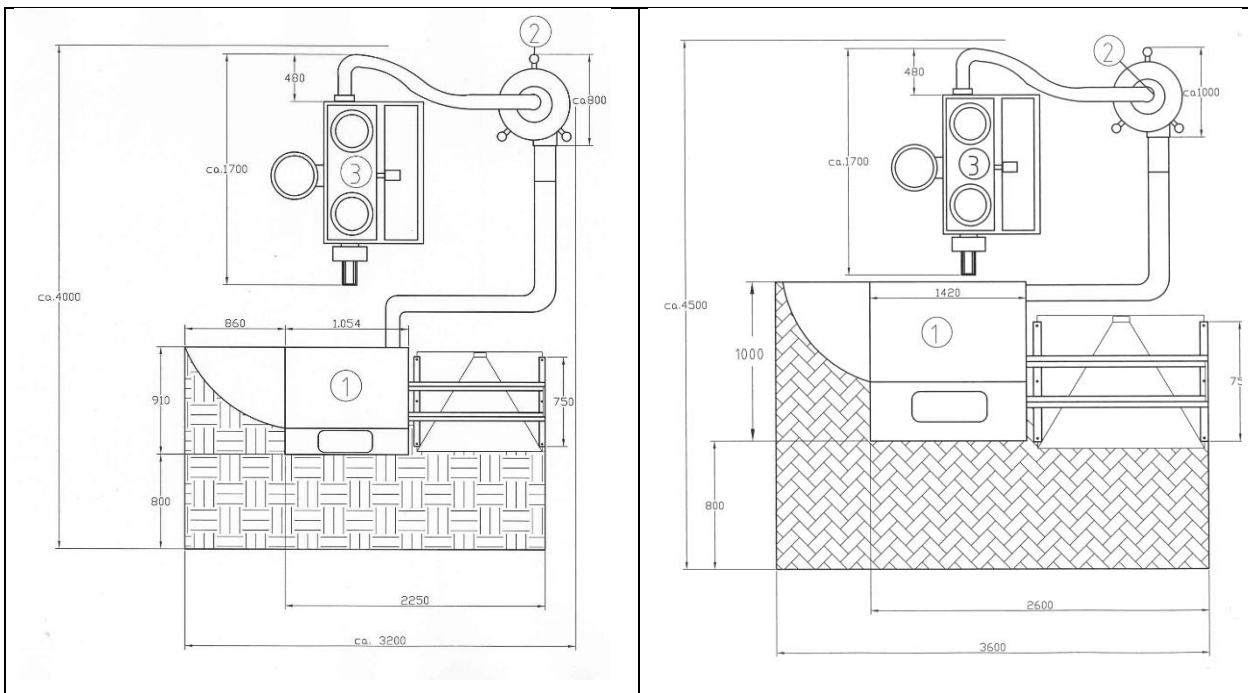
3.2 Unpacking and disposing the packing material

- Pallet: Wooden pallets 800 x1200
- Plastic film

3.3 Requirements

- basic allowance: see yellow cover sheet

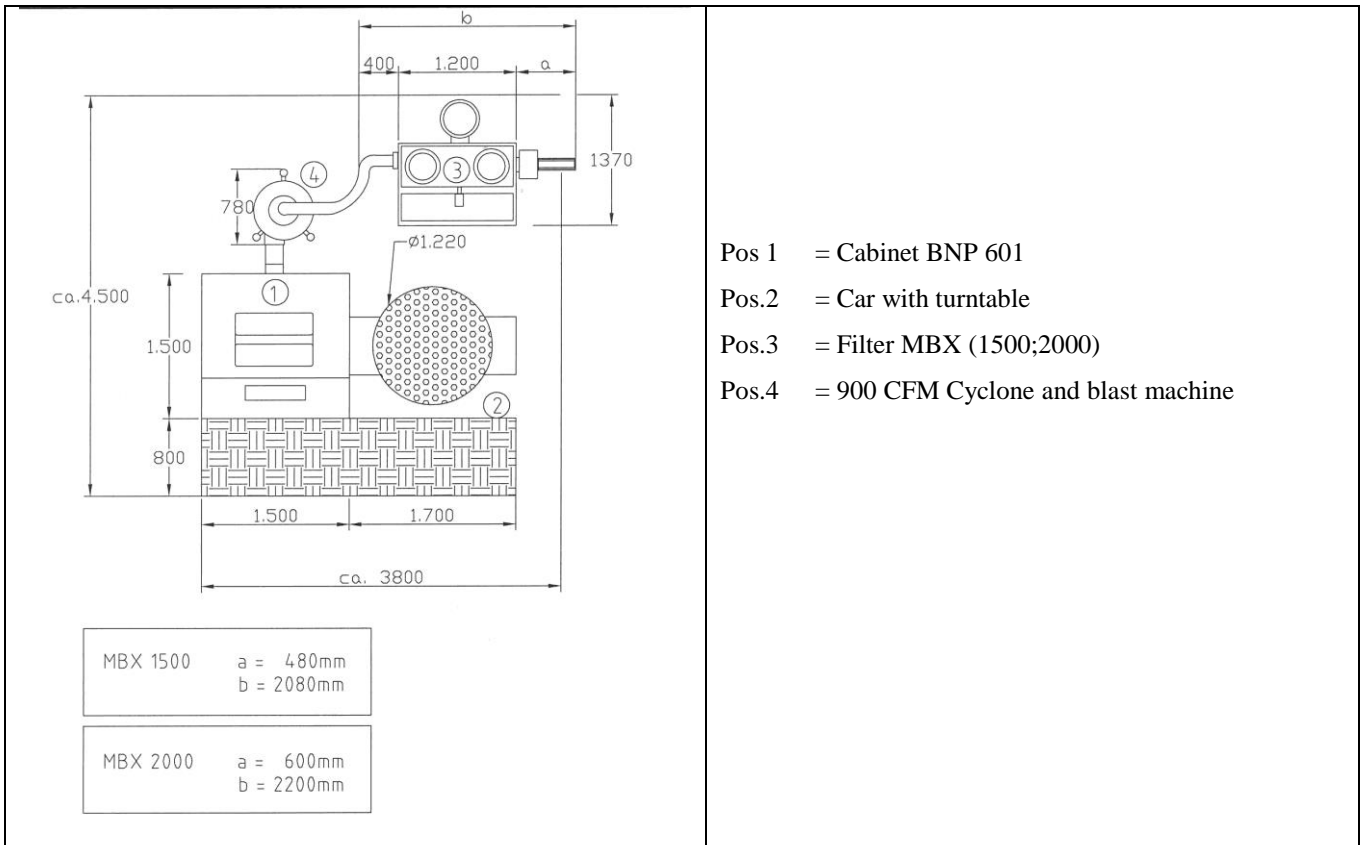
3.3.1 Required space for : BNP 65 and 220



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

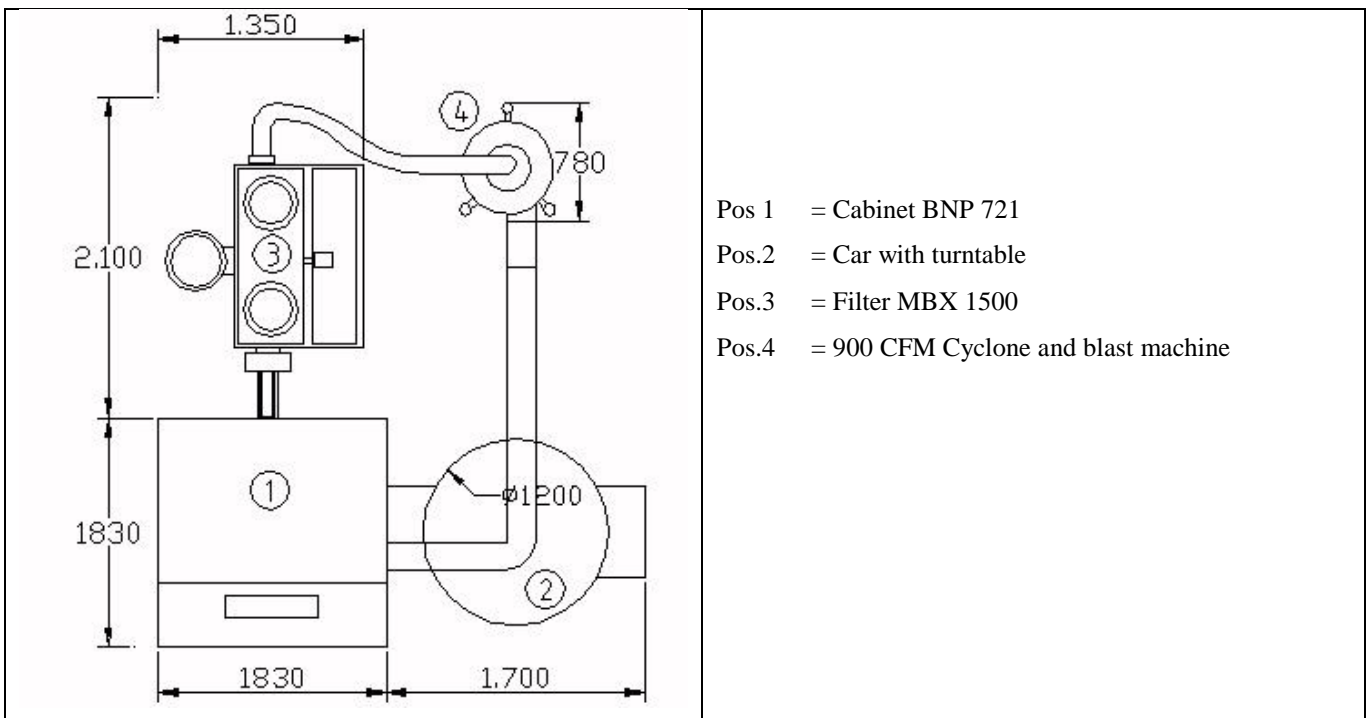
Pos 1	BNP 65(left) und BNP 220 (right)
Pos 2	Cyclon (900 oder 1200 CFM) + blast pot
Pos 3	MBX Filter 1500 CFM

3.3.2 Required space for BNP 601













Picture 4a: Required space for BNP-601



3.3.3 Required space for BNP 721



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 . - Media capacity (initial fill) : <ul style="list-style-type: none"> +min.: 10 l media +max.: edge door 	
		Caution! Noise > 80dB(A) Wear ear protection!
<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. 	

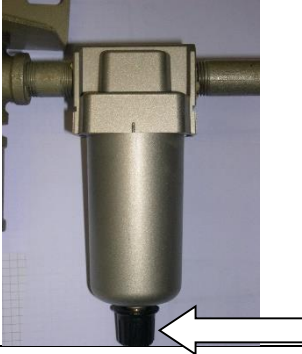
4 Instruction handbook

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 the 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
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-close external air supply		Depressurize moisture separator over drain screw
Clarification of causation	see 6.	

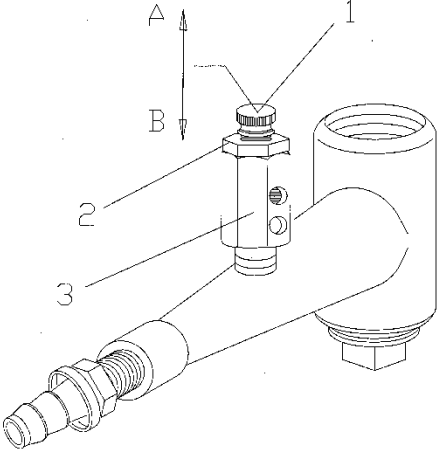
4.3 Shut down by longer interruption of work or moving the cabinet

Remove media	see 4.4.4.	
Disconnect electricity	Authorized electrician	
close external air supply		Depressurize moisture separator over drain screw

4.4 Special procedures

4.4.1 Adjust media / air mixture

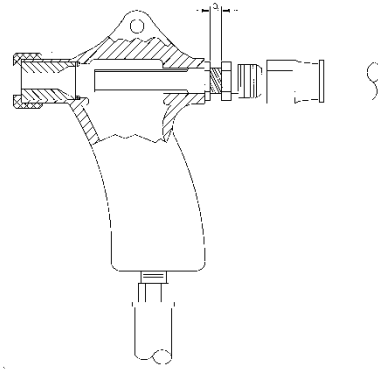
Figure 5: Media metering valve

	Pos.No.: 1 2 3	Description Adjust screw Locking nut Housing Direction A → less media Direction B → more media
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4.4.2 Adjusting BNP gun

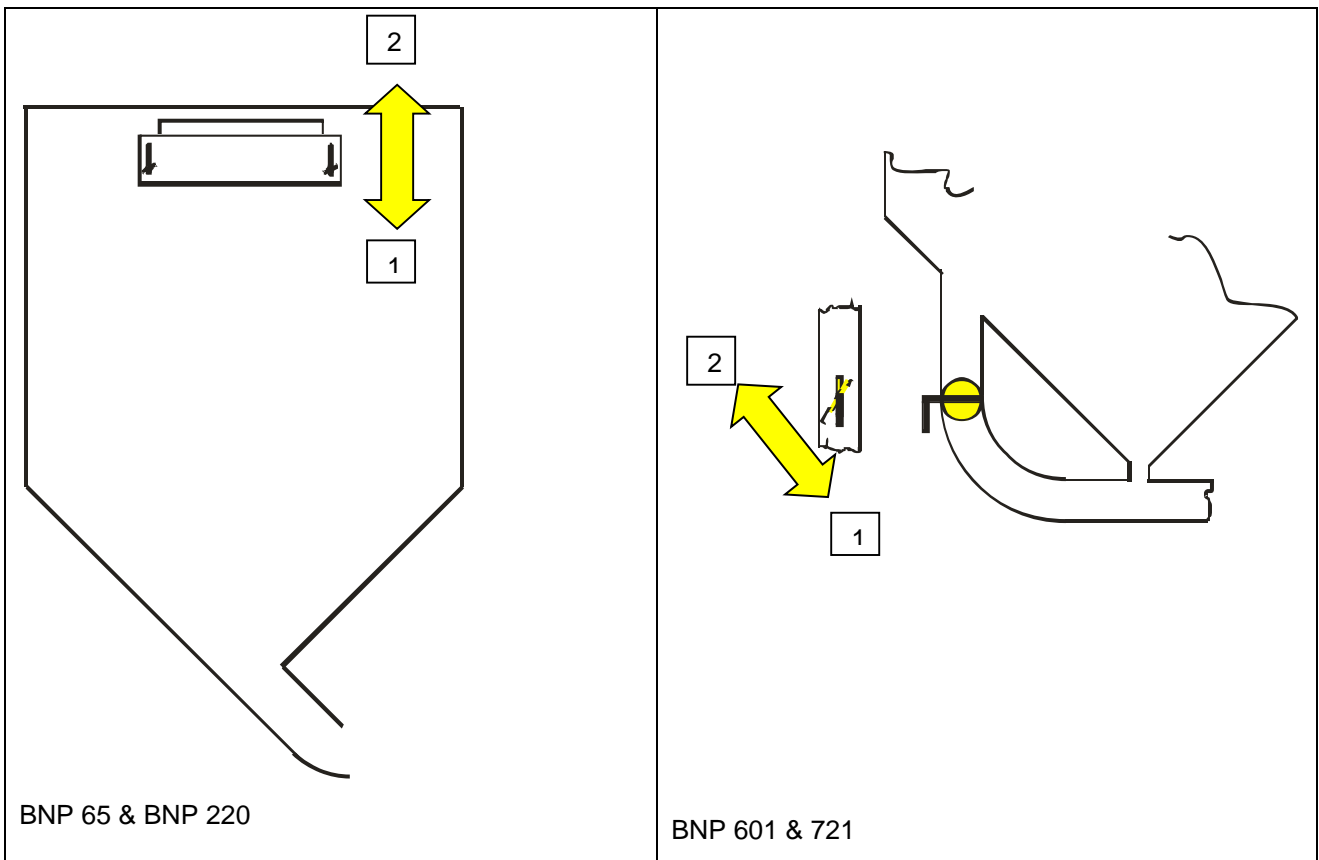
Please note the combination of air- and blast nozzle	-see schedule „air consumption“ yellow cover sheet -worn nozzles influence the right rate
--	--

Turn the orifice into the BNP blast gun.



- behind the locking nut should be seen 3,5 to 4 fully pitches of screw thread. (distance „a“)

4.4.3 View and media consumption



BNP 65 & BNP 220

BNP 601 & 721

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 cabinet	Green button
Blow-off cabinet	-Doors closed -exhauster working

	-with blow-off nozzle
Remove media from cyclon	<ul style="list-style-type: none"> - turn off fan - place an empty container under cyclon - unscrew the plastic plug (wrench no.: 22) - permit media to flow into container, lastly strike easily with your hand against the cyclon to let the rest flow out

4.4.5 Cleaning dust collector / replace cartridge / disposal of residues

See owner manual " filter"

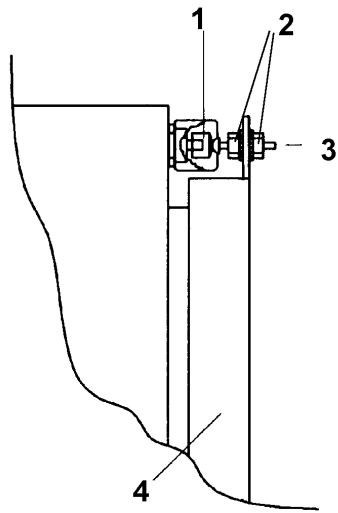
4.4.6 Window replacement

Figure 8: Thread filler strip

	No.:	Description
	1	filler strip
	2	gasket
	3	groove 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 out of window molding</i>	
<i>Remove window</i>	Push the window from the cabinet inside
<i>Install a new gasket</i>	Groove facing the front of the cabinet
<i>Install window</i>	Push into the groove
<i>Pull in filler strip</i>	With installation tool

4.4.7 Adjust door safety interlock



No.:	Description
1	Door safety interlock
2	Nut for screw adjusting
3	Actuating screw for safety interlock
4	Cabinet door

Figure 4: Door safety interlock connection

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.

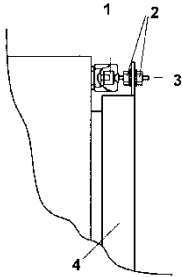
	Warning	<p>Warning! Risk of injuri!</p> <p>Dicharge completely pressure during maintenance jobs. (see 4.4.1)</p>
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5.2 If required

	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.

	
<i>Empty dust container (filter).</i>	- could be necessary already after one hour
<i>Media recovery system (Reclaimer).</i>	-empty screen → Turn off exhauster. This may be necessary more often - screen magnet .
<i>Nozzle and nozzle holder</i>	Check gasket for wear and replace if it's necessary

5.4 After max. 50 h of blasting

	Check and if necessary. replace /cleanse
<i>(1) Blast gun and nozzle</i>	Nozzle gasket.
<i>(2) Moisture separator.</i>	Clean filter and sight glass with soap and warm water
<i>(3) Air hoses and blast hoses.</i>	- gaskets of couplings for wear -blast hose by hand for soft spots

5.5 After max. 150 h of blasting

<i>(1) Gasket on cabinet doors.</i>	
<i>(2) Filter cartridge.</i>	- see owner manual „ Filter“

5.6 After other periodes 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
Gaskets	5 years

6 Troubleshooting

Problem	Probable cause	Remedy
<i>(1) Poor visibility.</i>	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.
	Air leakage in the suction cycle.	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
<i>(2) Abnormally high media consumption.</i>	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
<i>(3) Poor cleaning rate.</i>	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 : + moisture separator + pressure regulator + nozzle
	Blocked blast hose or gun / nozzle.	- Push nozzle against an elastic object (for example rubber plate) and step on the foot pedal. - Disassembly hose or gun and cleanse. - Search after the cause of blockage: ⇒ Missing or overfilled screen in the reclaimer. ⇒ Incorrectly adjusted metering valve. ⇒ Too heavy blast media.
	Worn nozzle	-remove / change nozzle
	Moist blast media.	- Frequent bridging or blockage in the media metering valve can be caused by moist blast media. Following reasons could be possible: ⇒ 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
	BNP gun adjusted incorrectly	- Adjust gun new –See 4.4.2.
<i>(4) Dust comes out the blower</i>	Dust filter gasket defective.	See owner manual „filter „
	Defective cartridge.	See owner manual „filter „

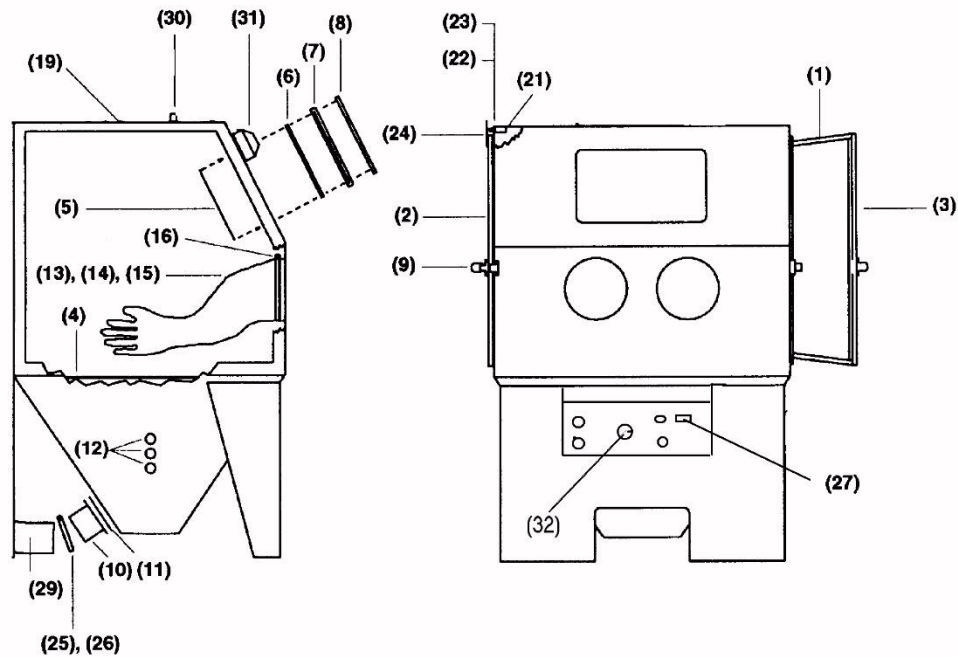
(5) <i>Static shocks</i>		- improve grounding of the cabinet. - in exceptional cases use supplementary ground wire between blast gun and cabinet wall
(6) <i>No air and no media comes out the nozzle</i>	Door interlocks are not actuated	Adjust pin resp. door fixing bzw. see 4.4.7
	Wrong connection of pneumatic hoses on foot pedal → permanent air blow off	- only when foot pedal was new installed - connect properly
	Polluted (blocked) moisture separator.	Cleanse moisture separator
(7) <i>Air only (no media) comes out the nozzle</i>	No blast media in the blast circuit	refill
	Moist media	-Remove moist media. -Remove cause for humid air supply.
(8) <i>No interruption of blast process when foot pedal is released</i>	Foot pedal valve blocked.	- depressurize the installation (see 4.4.1) - replace foot pedal valve
(9) <i>Irregular flow or too much blast media comes out the nozzle</i>	Incorrect adjusted media flow.	Adjust new (see 4.4.2).
(10) <i>Media remains in the suction hose</i>	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

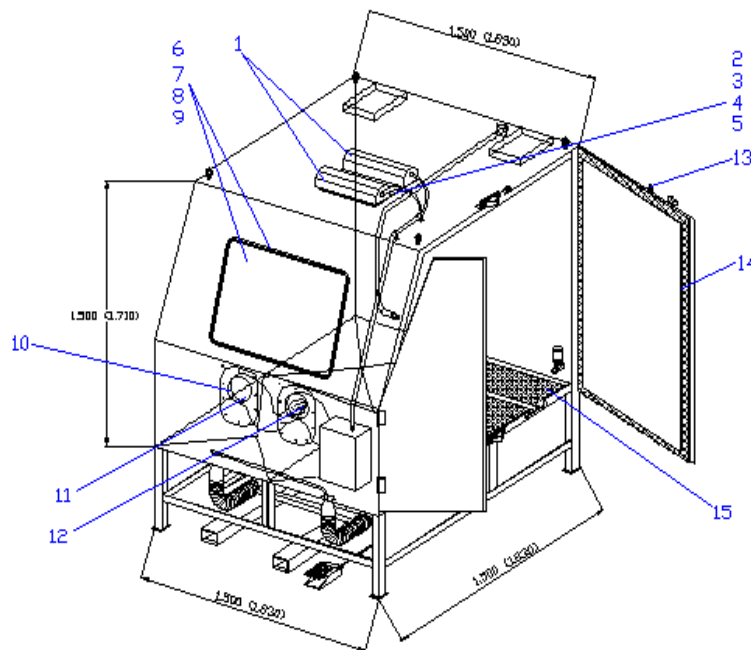
8.1 Replacement parts BNP 65 and BNP 220



Pos.	description	BNP 65	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

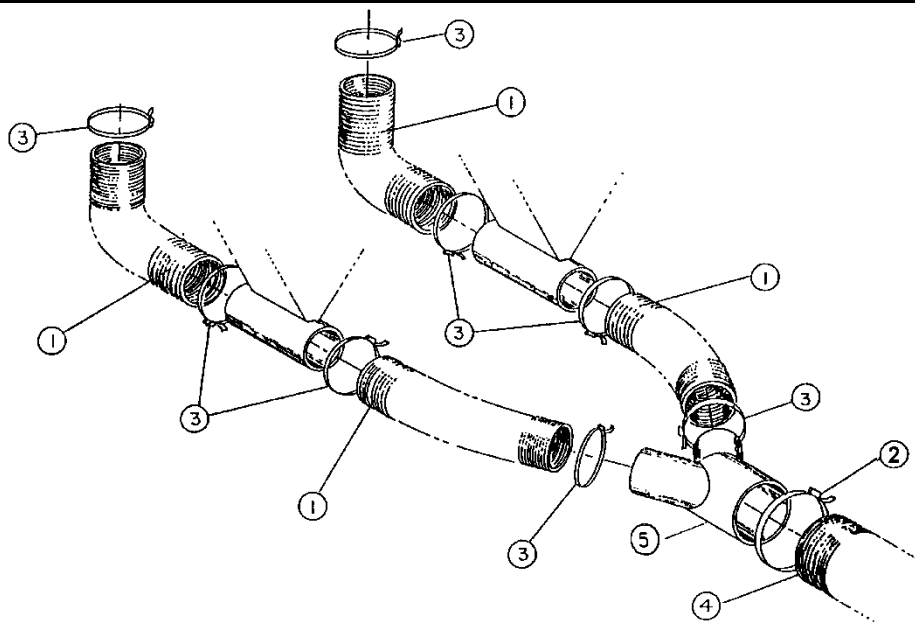
(15)	Rubber glove, right	12711Z	12711Z
(16)	Clamp (for gloves)	11576Z	11576Z
(19)	Grommet (for blast hose 6 mm)	12762Z	12762Z
(21)	Pneumatic valve safety door	12202Z	12202Z
(23)	Bushing safety door valve	15042Z	15042Z
(26)	Clamp f. Ø 100 mm / 4" (wire)	90241Z	-
	Clamp f. Ø 125 mm / 5" (wire)		90260Z
(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

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

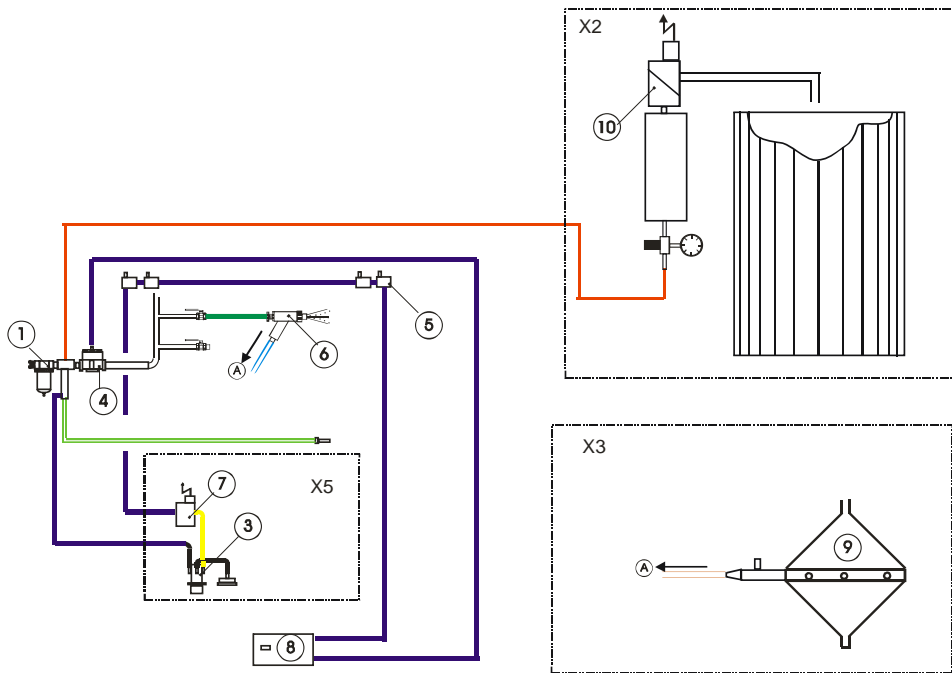
	Change frame complete	100959	100959
	Gasket 3 m	12434Z	12434Z
	Star handle	100551	100551
	Glass change frame small	100991	100991
(10)	Clamp for glove	11576Z	11576Z
(11)	Rubber glove, left	12710Z	12710Z
(12)	Rubber glove, right	12711Z	12711Z
	Rubber gloves-pair	99159Z	99159Z
(13)	Door opener special for 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	Part N°
1	Water separator	90545D
3	Pressure regulator 1/4" (Pilot regulator) Gauge (front mounting)	100061 11831Z
4	Pressure regulator 1 1/2"	10711Z
5	Pneumatic valve safety door	12202Z
ohne	Bushing safety door valve	15042Z
6	Blast gun	See 8.5
7	Solenoid valve 1/8"	100741
8	Foot pedal Pulsar	20194Z
9	Media metering valve	see 8.4
10	Diaphragm valve	See additional owner's manual „dust collector „
ohne	Air hose 1/8" (per m) - brown	12475Z

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

8.4 Suction guns and support

8.4.1 BNP gun

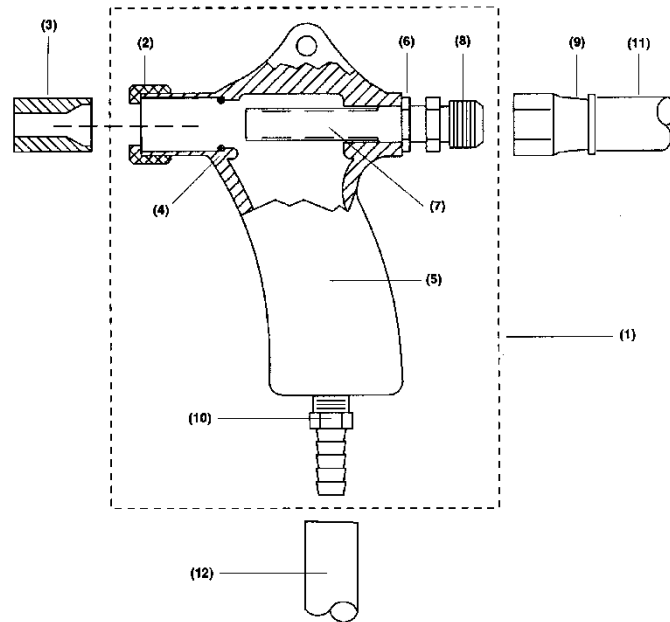


Figure 12: Spare parts BNP gun

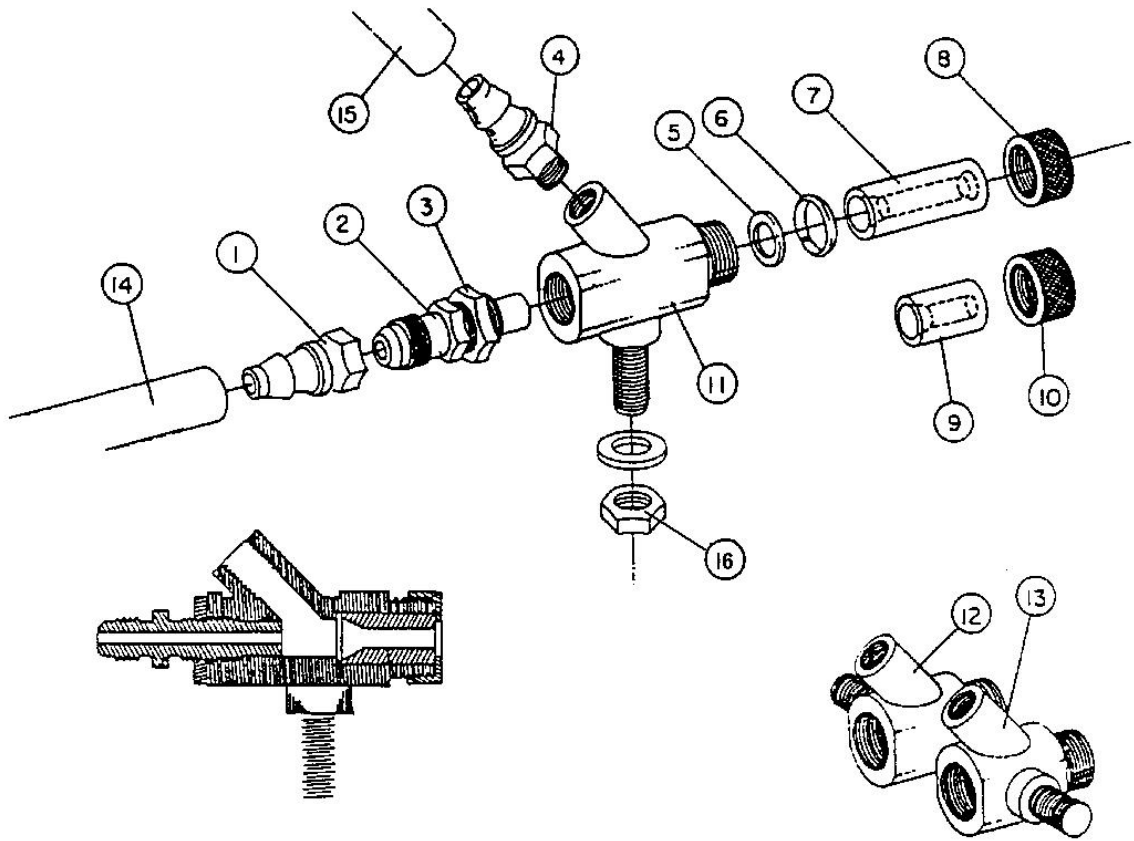
Pos.	Description	Part no.:
	Suction gun with 6 mm Boron Carbide nozzle	100766
	Suction gun with 8 mm Boron Carbide nozzle	100534
	Suction gun with 9,5 mm Boron Carbide nozzle	100908
	Suction gun with 8 mm Boron Carbide nozzle-flat jet	100703
	Gun complete with boron carbide nozzle 9,5 mm (wide nozzle)	11934Z
(2)	Nut for short nozzles (brass)	11914Z
(2)	Nut for long nozzles (brass)	11916Z
(2)	Nut for short nozzles (stainless steel)	24229Z
(2)	Nut for long nozzles (stainless steel)	100704
(3)	Boron carbide nozzle No. 4 (6 mm) straight	99643Z
(3)	Boron carbide nozzle No 5 (8 mm) straight	11935Z
(3)	Boron carbide nozzle No 6 (9,5 mm) straight	11936Z
(3)	Boron carbide nozzle No 7 (11,0 mm) straight	11937Z
(3)	Angle nozzle 6°, 8 mm option	12374Z
(3)	Angle nozzle 9°, 8 mm option	12373Z
(3)	Nozzle (long) 3°, 8 mm option	11921Z
(3)	Nozzle (long) 3°, 9,5 mm option	11922Z
(3)	Nozzle (long) 3°, 11 mm option	11923Z
(3)	Nozzle (long) 6°, 8 mm option	11927Z
(3)	Nozzle (long) 6°, 9,5 mm option	11928Z

(3)	Nozzle (long) 6“, 11 mm option	11929Z
(3)	Nozzle (long) 9“, 8 mm option	11924Z
(3)	Nozzle (long) 9“, 9,5 mm option	11925Z
(3)	Nozzle (long) 9“, 11 mm option	11926Z
(4)	O-ring	12031Z
(5)	Gun housing	11802Z
(6)	Nut	11918Z
(7)	Rubber bushing	12097Z
(8)	Orifice no.: 4 (3,2 mm) for blast nozzle 6 mm	12342Z
	Orifice no.: 5 (4,0 mm) for blast nozzle 8 mm	12343Z
	Orifice no.: 6 (4,8 mm) for blast nozzle 9,5 mm	12344Z
	Orifice no.: 7 (5,6 mm) for blast nozzle 11 mm	12345Z
	Orifice no.: 8 for blast nozzle 11 mm (special case)	12346Z
(9)	Union 0219-030	11723Z
(10)	Fitting 3/8“ 0219-034 (brass)	11724Z
(10)	Fitting autom. gun (stainless steel)	100756
(11)	Air hose 1/2“ per m	12472Z
(12)	Blast hose PU 1/2“ per m	12476Z
	Clamp collar for long nozzles	

*with thread for fixing on rack ; O= without ; M=centric ; R= right; L=left

8.4.2 Automatic-gun

Useable only with support (see 8.4.3)



Pos.	Description	Option Automatic gun
	Autom. gun assy with 6mm nozzle	90807Z M*
	Autom. gun assy with 8mm nozzle	100099 M*
	Autom. gun assy with 9,5mm nozzle	-
	Autom. gun assy with 9,5mm nozzle	99551Z L*
	Autom. gun assy with 9,5mm nozzle	99552Z M*
	Autom. gun assy with 9,5mm nozzle	99553Z R *
(2)	Nut for short nozzles (brass)	11914Z
(2)	Nut for long nozzles (brass)	11916Z
(2)	Nut for short nozzles (stainless steel)	24229Z
(2)	Nut for long nozzles (stainless steel)	100704
(3)	Nozzle no. 4 (6 mm) straight (boron carbide)	99643Z
(3)	Nozzle no. 5 (8 mm) straight (boron carbide)	11935Z
(3)	Nozzle no. (9,5 mm) straight (boron carbide)	11936Z
(3)	Nozzle no. 7 (11,0 mm) straight (boron carbide)	11937Z
(3)	Angle nozzle 6°, 8 mm Option	12374Z
(3)	Angle nozzle 9°, 8 mm Option	12373Z

(3)	Angle nozzle 3“, 8 mm Option	11921Z
(3)	Angle nozzle 3“, 9,5 mm Option	11922Z
(3)	Angle nozzle 3“, 11 mm Option	11923Z
(3)	Angle nozzle 6“, 8 mm Option	11927Z
(3)	Angle nozzle 6“, 9,5 mm Option	11928Z
(3)	Long nozzle 6“, 11 mm Option	11929Z
(3)	Angle nozzle“, 8 mm Option	11924Z
(3)	Angle nozzle“, 9,5 mm Option	11925Z
(3)	Angle nozzle 9“, 11 mm Option	11926Z
(4)	O-ring	12031Z
(5)	Gun housing	11844Z O* 12276Z M* 12275Z L* 12277Z R*
(6)	Adjustment nut for orifice	11918Z
(7)	Rubber bushing	Ohne
(8)	Orifice no. 4 (3,2 mm) for blast nozzle 6 mm	11959Z
	Orifice no. 5 (4,0 mm) for blast nozzle 8 mm	11960Z
	Orifice no. 6 (4,8 mm) for blast nozzle 9,5 mm	11961Z
	Orifice no. 7 (5,6 mm) for blast nozzle 11 mm	11962Z
	Orifice no. 8 for blast nozzle 11 mm (spacial case)	11963Z
(9)	Union 0219-030	11723Z
(10)	Fitting 3/8“ 0219-034 (brass)	11724Z
(10)	Fitting autom. gun (stainless steel)	100756
(11)	Air hose 1/2“ per m	12472Z
(12)	Blast hose PU 1/2“ per m	12476Z
	Clamp collar for long nozzles	12038Z

*with thread for fixing on rack ; O= without ; M=centric ; R= right; L=left

8.4.3 Nozzle holder /Option

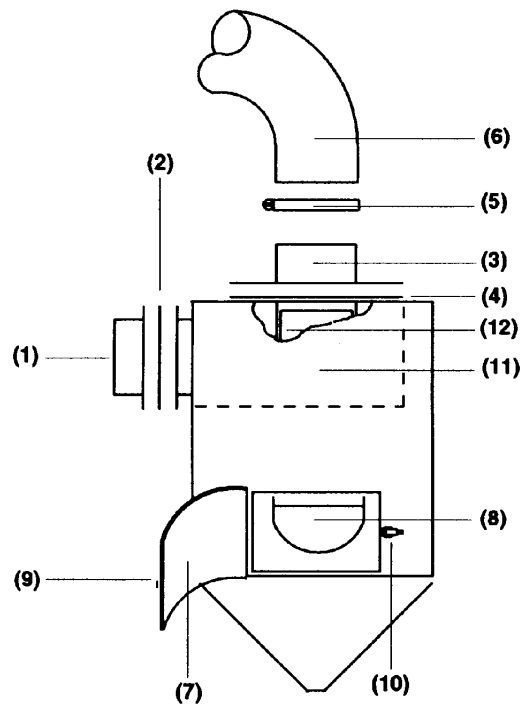
Pos.	Description	for BNP-gun	For autom. gun
	Nozzle holder base frame	100559	100559
	Clamp ZERO 12mm	99868Z	99868Z
	Nozzle holder	100569	ohne

8.5 Foot pedal



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

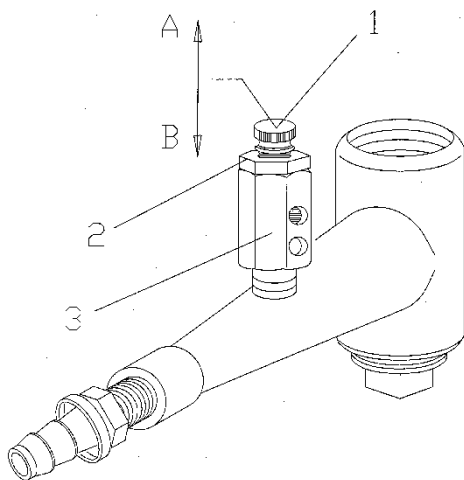
8.6 Cyclon suction



Pos.	Part no.	Type	Description
(-)		16,8 m ³ /min.	Cyclone,suction
(-)		16,8 m ³ /min.	Cyclone, suction with PU-coating
(-)		25,4 m ³ /min.	Cyclone, suction
(-)		25,4 m ³ /min.	Cyclone, suction with PU-coating
(-)		34 m ³ /min	Cyclone, suction
(-)		34 m ³ /min	Cyclone, suction with PU-coating
(1)	12361Z		Adaptor 125 mm Ø / 5"
(1)	12363Z		Adaptor 150 mm Ø / 6"
(1)	17277Z		Adaptor 180 mm Ø / 7"
(2)	11779Z		Gasket for adaptor 125 mm Ø / 5"
(2)	11759Z		Gasket for adaptor 150 mm Ø / 6"
(2)			Gasket for adaptor 180 mm Ø / 7"
(3)	99970Z		Pipe for cyclon Ø 150 mm (outlet adaptor)
(3)	16832Z		Pipe for cyclon Ø 180 mm (outlet adaptor)

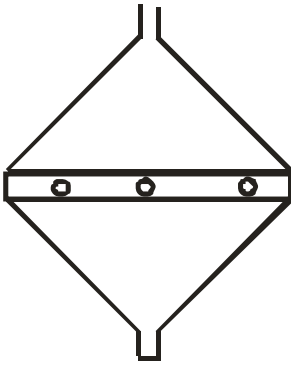
(3)	99610Z		Pipe for cyclon \varnothing 200 mm (outlet adaptor)
(4)	99751Z		Gasket per m
(5)	90241Z		Clamp \varnothing 100mm / 4"
(5)	90260Z		Clamp \varnothing 125mm / 5"
(5)	90261Z		Clamp \varnothing 150mm / 6"
(5)	90265Z		Clamp \varnothing 180mm / 7"
(5)	90277Z		Clamp \varnothing 200mm / 8"
(5)	90279Z		Clamp \varnothing 225mm / 9"
(6)	12447Z		Suction hose 100mm / 4" per m
(6)	12449Z		Suction hose 125mm / 5" per m
(6)	12452Z		Suction hose 150mm / 6" per m
(6)	12448Z		Suction hose 180mm / 7" per m
(6)	12470Z		Suction hose 200mm / 8" per m
(7)	11745Z		Door gasket cyclon
(8)	21265Z		Screen fine 2-3 mm
(8)	21275Z		Screen coarse 5 mm
(8)	15580Z		Magnet for screen
(9)	14271Z		Door
(10)	12263Z		Door latch
(11)	11985Z	16,8 m ³ /min.	Rubber wear plate
(11)	11982Z	25,4 m ³ /min.	Rubber wear plate
(11)	11980Z	34 m ³ /min.	Rubber wear plate
(12)	without		Vortex pipe (Option)
(-)	19080Z	16,8 m ³ /min.	Vortex cylinder for cyclon \varnothing 150 mm - Option
(-)	19084Z	25,4 m ³ /min.	Vortex cylinder for cyclon \varnothing 180 mm - Option
(-)	19087Z	34 m ³ /min.	Vortex cylinder for cyclon \varnothing 225 mm - Option

8.7 Metering Valve for 1 blast guns

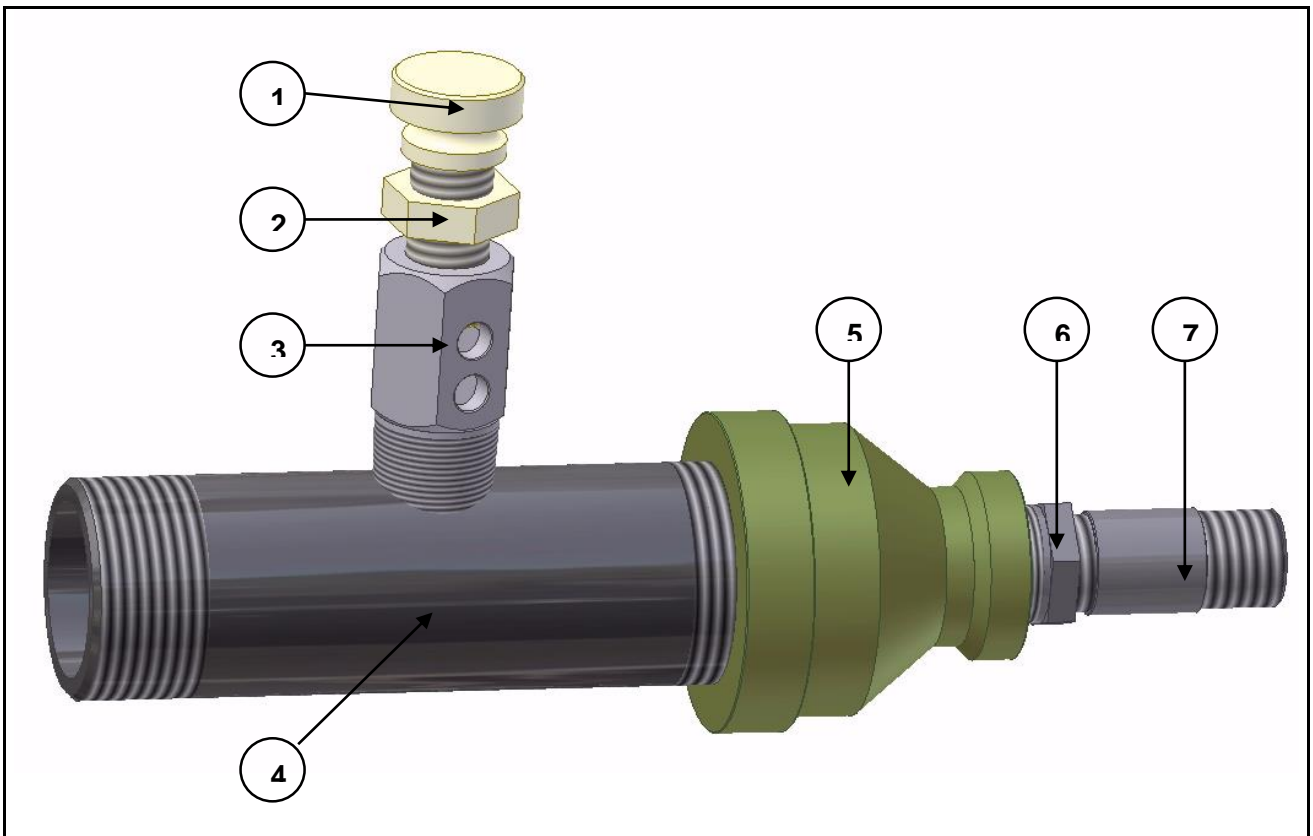


Pos.	Part. Nr.	Description
(-)	12417Z	Metering valve complete
1	100790	Screw adjusting
2	100791	Nut, adjusting stem lock
3	100789	Stem, metering adjusting
	12011Z	Plastic plug

8.8 Metering valve assembly with Sputnik



Pos.	Part. Nr.	Description
(-)	12322Z	Sputnik for max. 6 guns
(-)	16202Z	Sputnik for max. 12 guns



Pos.-Nr.:	Art. Nr.	Bezeichnung	Description
1	100790	Einstellschraube	Screw adjusting
2	100791	Kontermutter	Nut, adjusting stem lock
3	100789	Regelventilgehäuse	Stem, metering adjusting
4	11534	Plexiglas Rohr	Body, metering valve

5	12024	Reduziermuffe	Bell reducer
6	12818	Reduzierung	Pipe bushing
7	11912	Nippel	Pipe nipple
1-7	12420	Komplette Einheit	Complete assembly

8.9 Dust collector and blower

See additional owner's manual.

8.10 Control box

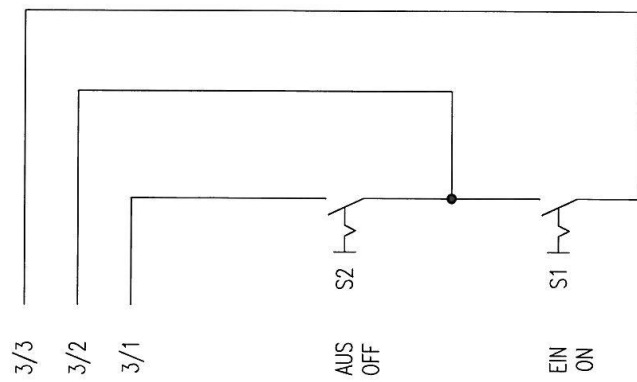
Pos.	Description	Part no.:
without	Emergency STOP button	100742
without	Solenoid valve 1/8"	100741
without	Module- Pulsar – see table 8.10 for different voltage and power	
without	Push button (green)	100736
without	Push button (red)	100737
without	Gauge	11831Z
without	Pressure regulator	100061
without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

8.11 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

Yellow=Standard

1 2 3 4 5 6 7 8 9 10 11

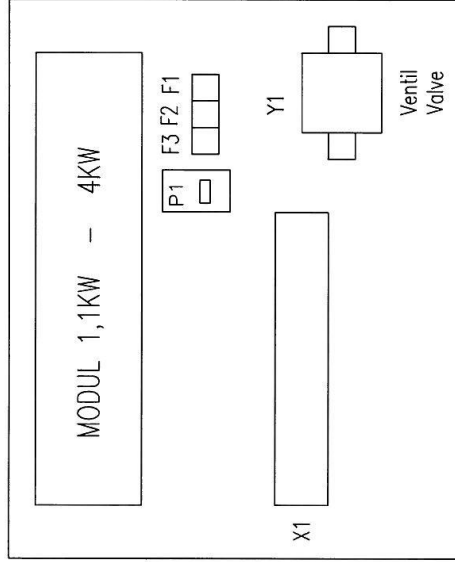
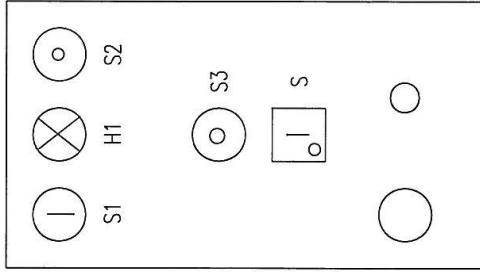
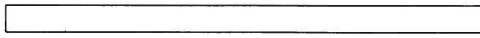


Kopieren oder Weitergabe nur mit unserer Genehmigung gestattet

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.

1 2 3 4 5 6 7 8 9 10 11

LAGEPLAN
Mounting-Plan



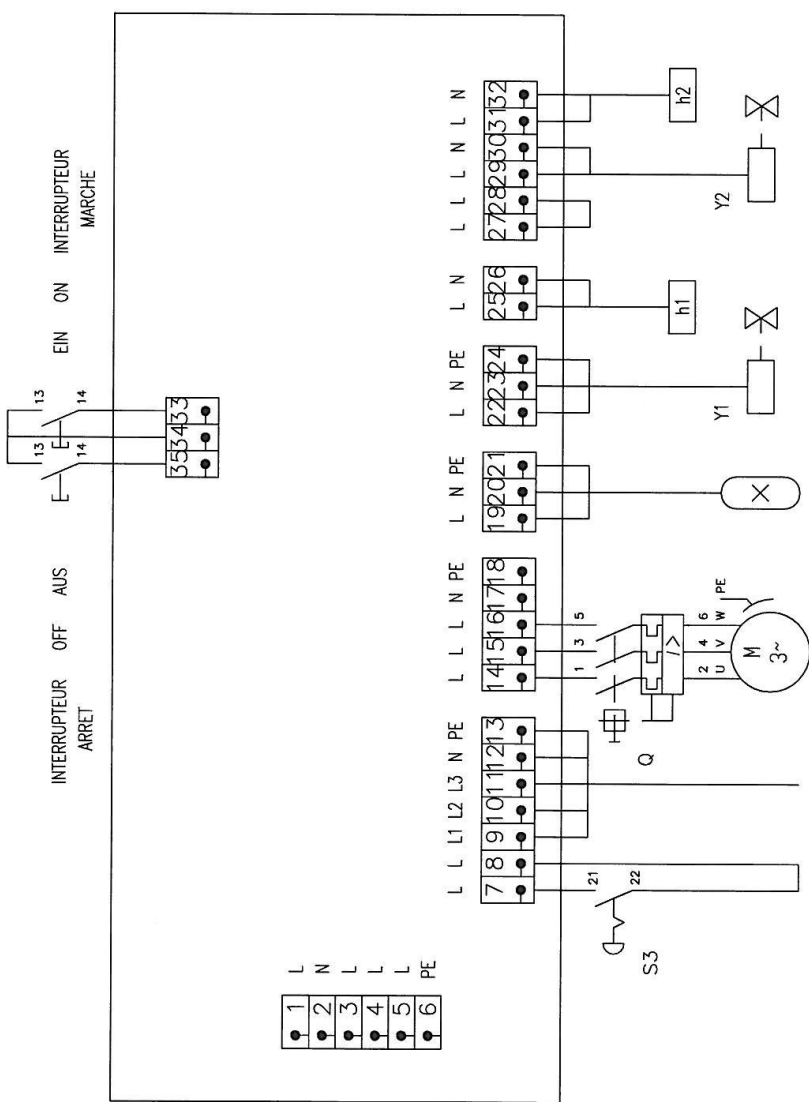
Kopieren oder Weitergabe nur mit unserer Genehmigung gestattet

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

Kopieren oder Weitergabe nur mit unserer Genehmigung gestattet

1 2 3 4 5 6 7 8 9 10 11

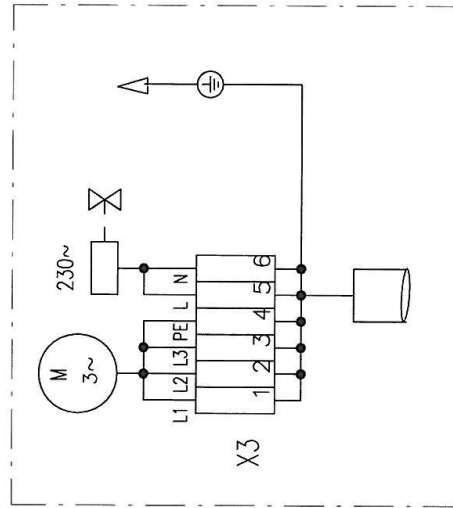
- a) NOT/AUS
EMERGENCY STOP
ARRET COUP DE POING
- b) NETZ EINGANG 3x400V~
SUPPLY 3x400V~
TENSION ALIMENTATION 3x400V~
- c) FILTER MOTOR 1,1KW-4KW
FILTER MOTOR
FILTRE MOTEUR
- d) LICHT
LIGHT
ECLAIRAGE
- e) FILTER VENTIL
FILTER VALVE
FILTRE ELECTROVANNE
- f)+h) STUNDENZÄHLER
HOUR COUNTER
COMPTEUR HORAIRE
- g) VENTIL
VALVE
ELECTROVANNE



gez.	Datum	Name	Projektbez.
gepr.	29.04.08	Clemco International 3x400V 1,1 — 4KW K.Morina	Schaltschrank 100402A
		R.Friedrich Steuerungstechnik Tölzer Str. 46 a 82024 Taufkirchen	Auftragsnr. Zeichnungsnr.
			Blatt 5
			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.		
					Blatt	7
						Bf.

8.13 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

8.14 Options, Accessories

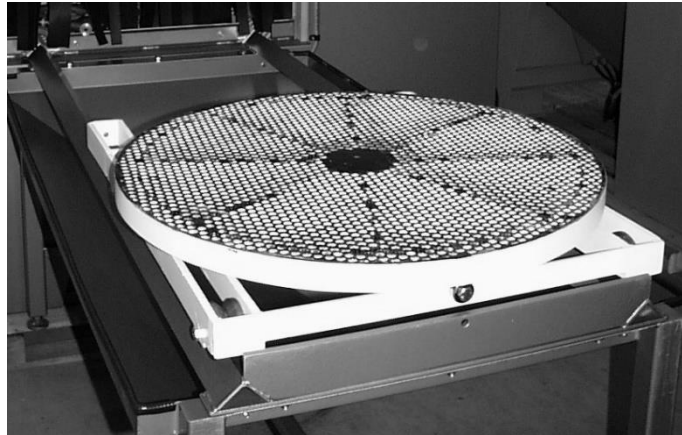


Figure 9: Track assembly: truck, hopper, work car with turntable

<i>Pos.</i>	<i>Description</i>	BNP 65	BNP 220	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

8.14.1 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