



OWNER'S MANUAL

Suction Blast Cabinet

Type series Pulsar (III, VI, VI+, VIII and VIII+)

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Translation:1

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1 Abbreviations, definitions, symbols and icons

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

2 Product description

2.1 Conventional utilization and restrictions

	Pulsar III	Pulsar VI	Pulsar VIII	Pulsar VI+	Pulsar VIII+
Max. carrying capacitance steel grating.	1000 N	1000 N	1000 N	1000 N	1000 N
Max. carrying capacitance with wrack.	2000 N	2000 N	2000 N	2000 N	2000 N
Operating time	< 4h / day			Continuous operation	
Basic parameters	See yellow cover patch				

Blast cabinets of the „Pulsar series“ without further electrical drives do not have own potential ignition sources in critical areas. That is why they do not fall in the coverage of the ATEX code. (please though see 2.2)

2.2 No conventional utilization – Warnings for misuse

Utilization is interdicted:

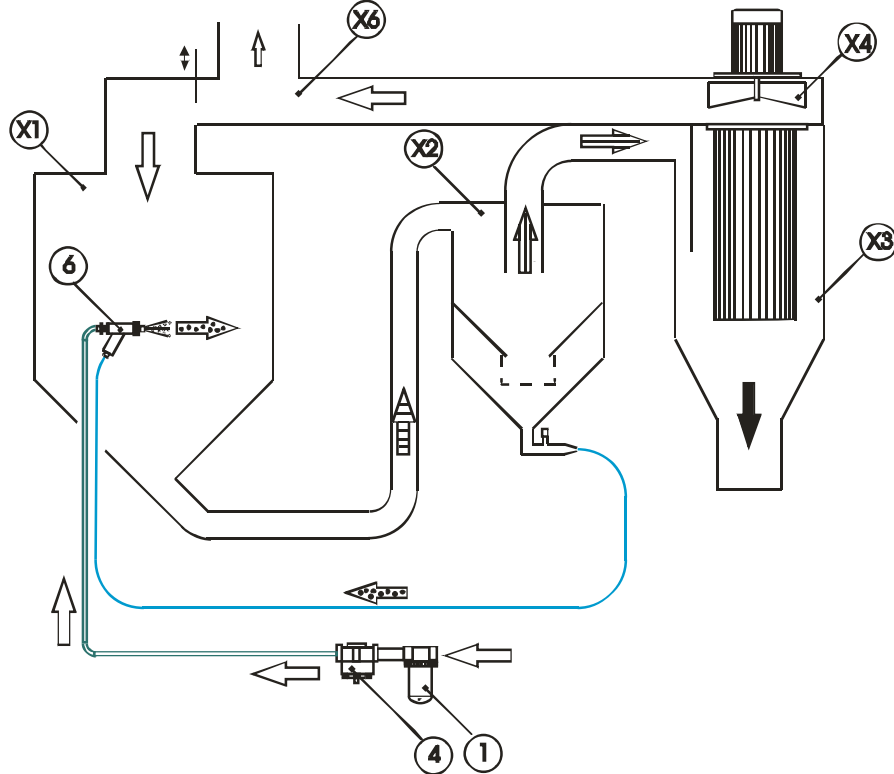
As a blow-off cabinet in use for explosive and/or harmful solvents

- in explosion hazard zones
- for blasting parts, where hazardous material were released
 - o by explosion hazards
 - o which were not retained enough by the dust collector
 - o Which causes damages caused to somebody's health during a defectuous dust collector.

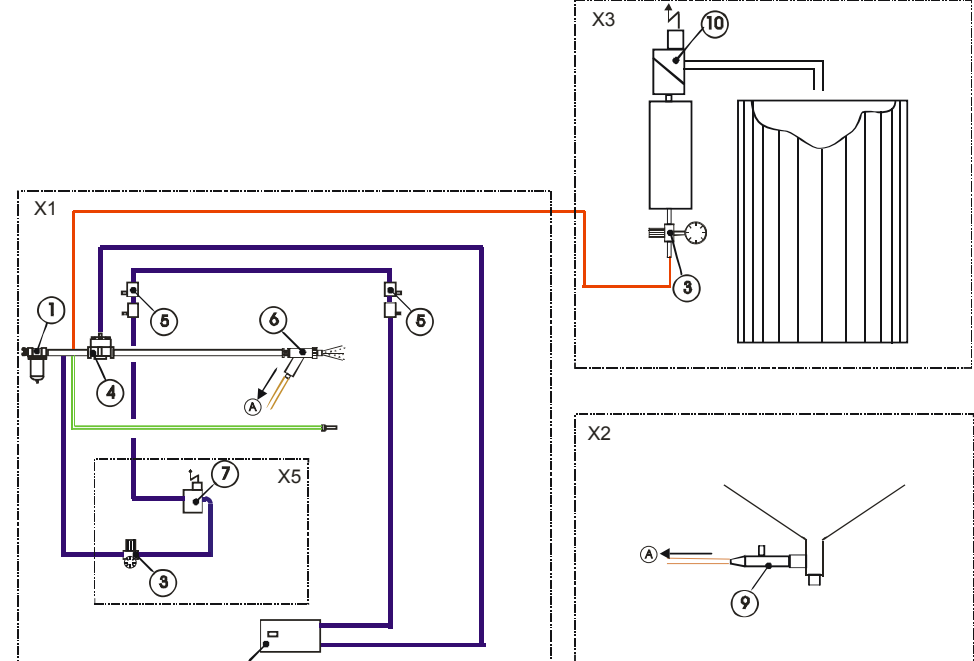
Blast cabinet does not fall in the coverage of the ATEX code because there does not exist active sources of ignition.

2.3 Operating mode of the complete system

Abrasive circuit flow – basic principle



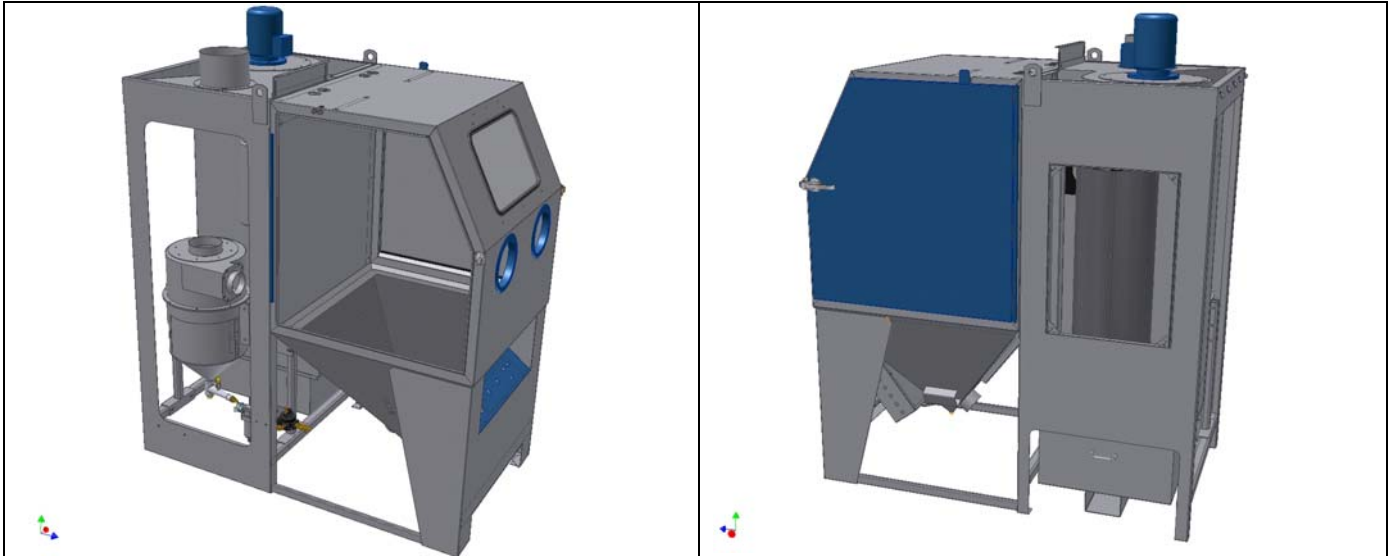
Pneumatical flow scheme – colours of pneumatic hoses are not binding



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

2.4 Description

Figure 1: Pulsar III & VI injection blast cabinet



2.4.1 Media recovery system (Cyclon))

- Cyclon principle
- Compartmentation of:
 - o Dust in dust collector
 - o Good media in circuit
 - o Coarse impurities in screen

2.4.2 Dust collector cartridge

- ⇒ Automatically follow-up cleaning trough air pulse
- ⇒ Pulse interval: ca. 40..60 s
- ⇒ Pulse duration: ca. 500 ms
- ⇒ Follow-up cleaning: ca. 5min
- ⇒ Exchangeable cartridge.
- ⇒ Dust container.

2.4.3 Operating elemenst

	where	Notes / features
Pressure regulation blasting	Control box	2 to 7 bar
Dedusting filter cartridge	Pressure regulator on air balance vessel – backside of the cabinet	Preference pressure: 5 bar
ON/OFF	Control box	Activating: -Control circuit -Fan -Light -Filter cartridge dedusting function (Follow-up cleaning is not deactivated)
Emergency STOP	Control box	Deactivating electrical supply

2.5 Energy consumption

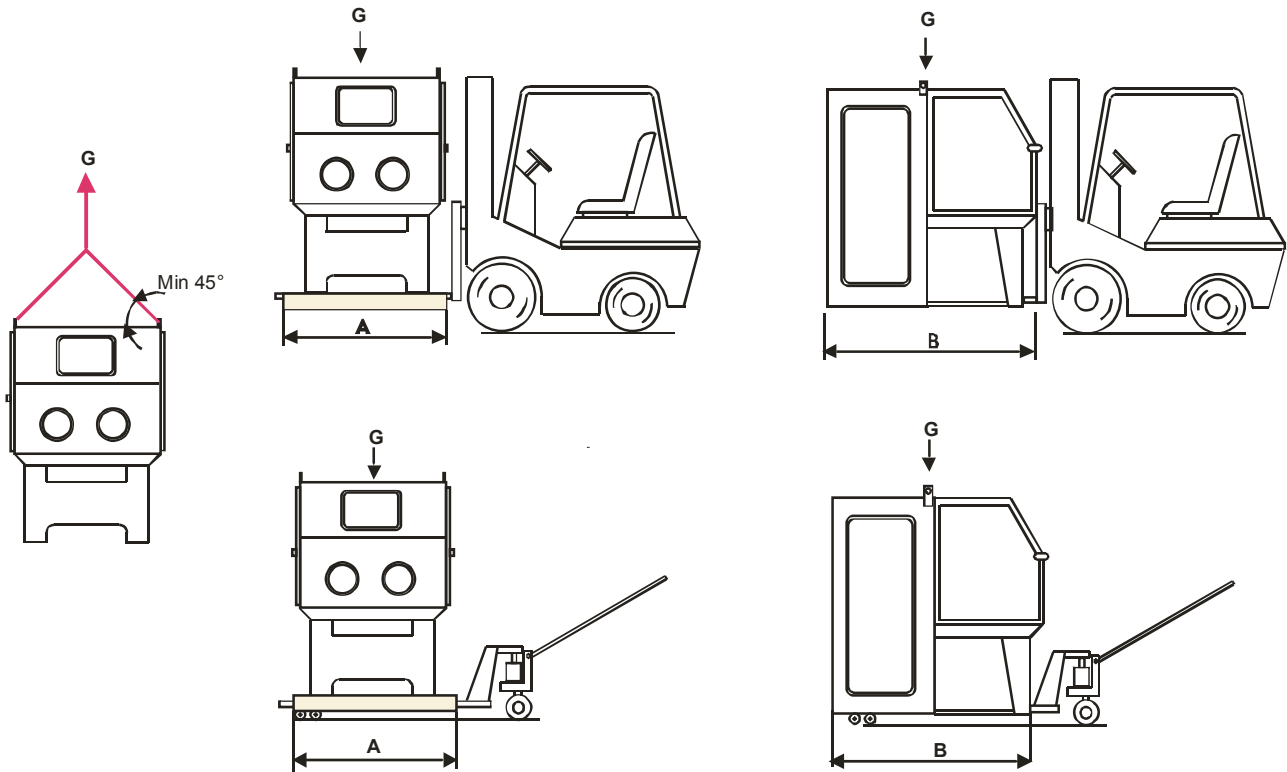
- Air consumption: see yellow cover sheet
- Electrical connection: see identification plate

2.6 Emissions

See yellow cover sheet

3 Set-up for initial installation

3.1 Carriage / Handling of cargo



	G(N)	A (mm)	B(mm)
Pulsar III injection	3600	1100	1700
Pulsar VI injection	4000	1450	1900
Pulsar VIII injection	4200	1450	2200

3.2 Unpacking and disposing the packing material

- Pallet: Wooden pallets – no special arrangements
- Plastic film

3.3 Requirements for setting up

- basic allowance: see yellow cover sheet

- Required space:

Dimensions (± 10 mm)	Type				
	Pulsar III	Pulsar VI	Pulsar VI+	Pulsar VIII	Pulsar VIII+
a	2010	2090	2090	2090	2090
c	1640	1855	1970	2115	2230
d during working	2490	2705	2820	2965	3080
d during repairing	3040	3255	3370	3515	3630
e	2200	2570	2570	2570	2570
f	3050	3520	3520	3520	3520

Scheme 1: Dimensions

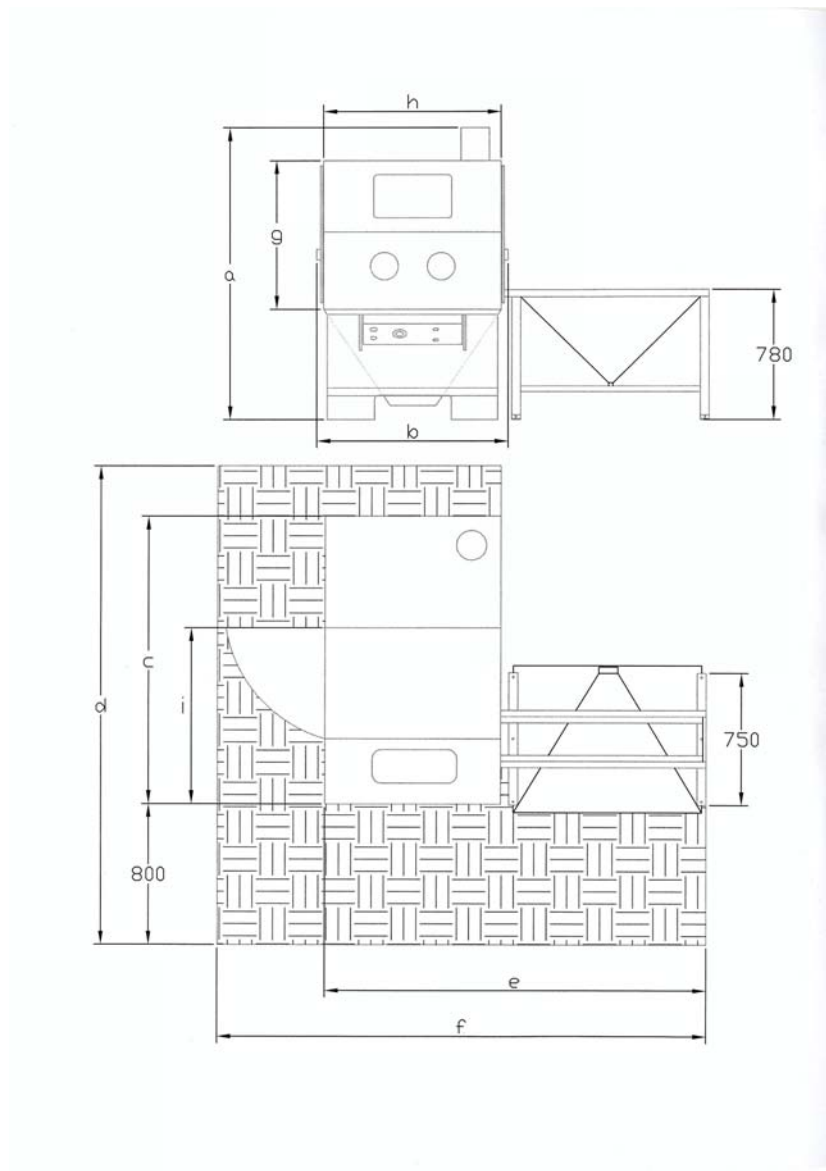


Figure 3a: required space cabinet

3.4 Set-up. Assembling and operation checkout

Cabinet set up.	-Requirements: see yellow cover sheet -bracing in the floor: not necessary	
	 Warning	Warning! Explosion hazard! Connect only max. admitted pressure.
Air supply	-max. 7 bar - by higher pressures install pressure regulator and safety valve between cabinet and air supply - connect air hose between air supply and cabinet: Inner diameter: min 19mm Length: max. 10m	
Filter cartridge cleaning	Adjust pressure regulator for cleaning to 5bar	
	 Warning	Warning! Risk of injury! Connect electric circuit points only by authorized electrician.
	 Warning	Warning! Explosion hazard caused by dust! Ground!
	 Caution	Caution! Risk of injury! Ground!
Electrical connection and grounding	-16A Euro plug connector -Cabinet grounding - min. 10 mm ² - earth screw in stock, ground wire etc. no shippment	
Function test without media	Close the doors. Switch-on electricity (green push button). Control the following: -Is lighting on? -Is the fan motor starting?. Turns the motor in direction of the arrow? Otherwise reverse the polarity. -Is cleaning pulse for cartridge filter activ ? (ca. 40 s interval) -Take the nozzle in your hand and press ther foot pedal. Is the blast process starting? -Step on the foot pedal and 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.	
Media loading.	-Exhauster off. - add media slowly into reclaimer hopper through the reclaimer door (blast pot) +Pulsar III suction: 5 l +Pulsar VI und VIII suction: 10 l	
	 Caution	Caution! Noise > 80dB(A) Wear ear protection!

<i>Function test with media</i>	- Close doors. - Adjust blast pressure. - Grask firmly nozzle and hold it in direction grate. Step on the foot pedal → Blast process starts. Check, if dust passes of (2.person). Critical points: -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>	Green push button
<i>Load parts to be blasted into the cabinet</i>	Close doors
<i>Blasting</i>	Grask firmly blast gun /nozzle and step on the foot pedal
<i>Blow off</i>	Clean parts with blow off gun
<i>Switch off electricity</i>	Red push button Follow-up cleaning works ca. 5 min
<i>Disconnect air supply</i>	

4.2 Emergency stop

<i>Push emergency stop button</i>	-Electrical supply is disconnected, follow-up cleaning too	
<i>Close external air supply</i>		Depressurize over drain screw moisture separator
Clarification of reason		

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

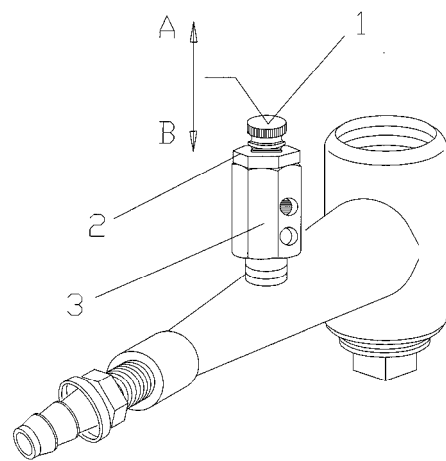
<i>Remove media</i>	see 4.4.4.
<i>Disconnect electricity</i>	Authorized electrician

Close pressure air supply		Depressurize the system over drain screw on water separator
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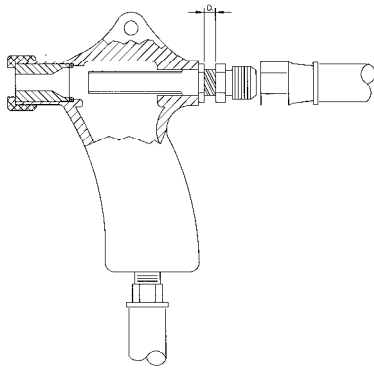
4.4 Special procedures

4.4.1 Adjusting media / air mixture

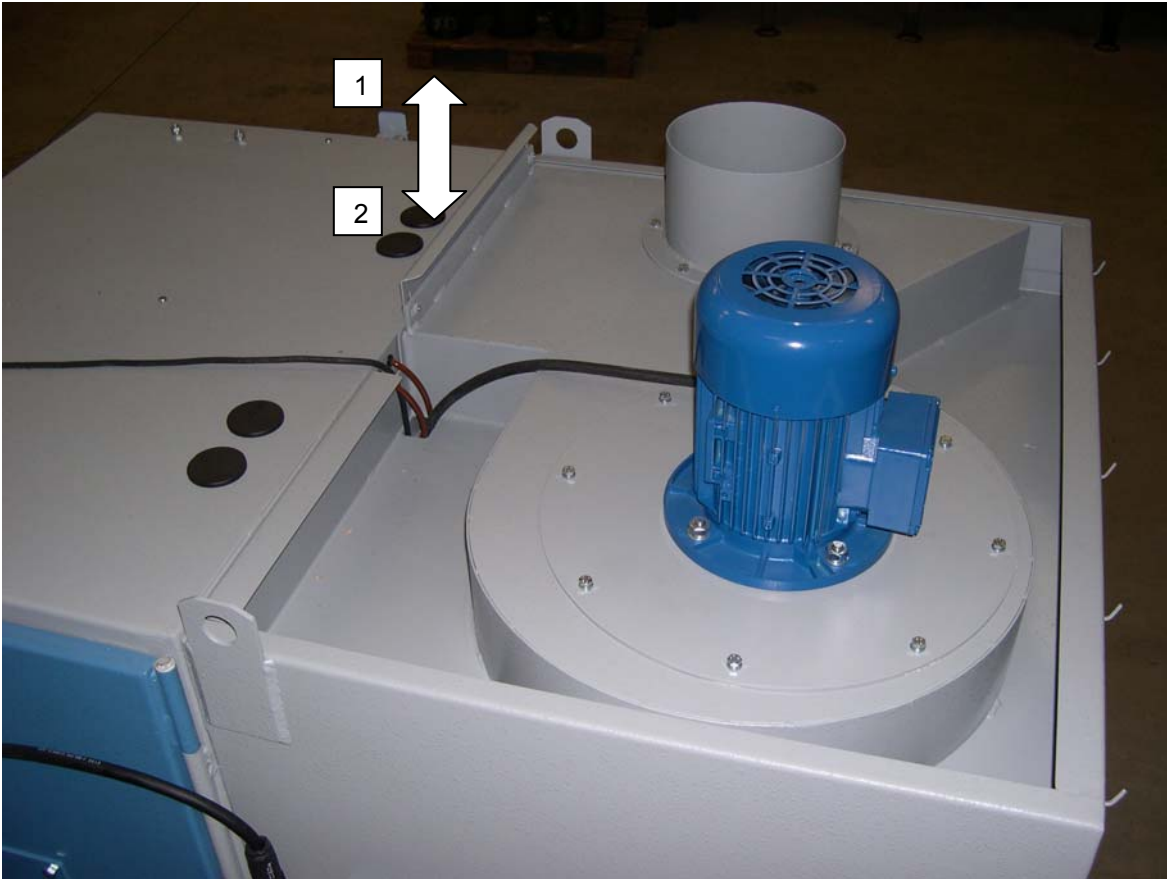
Figure 5: Media metering valve

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

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 threat. (distance „a“)

4.4.3 View and media consumption



	View	Media conveyance / consumption
1	better	higher
2	worser	lower

4.4.4 Media unloading

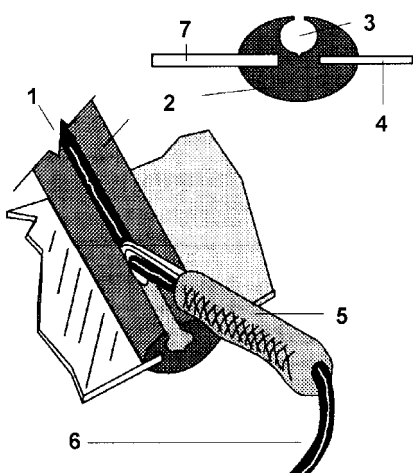
Turn on cabinet	Green button
Blow-off cabinet	-Doors closed -exhauster working -with blow-off nozzle
Remove media from cyclon	- turn off fan - place an empty container under cyclon - unscrew the plastic plug (wrench no.: 22) - permit media to flow into container, lastly strike easily with your hand against the cyclon to let the rest flow out

4.4.5 Cleaning dust collector / replace cartridge / disposal of residues

Replace cartridge	- pulse filter a second time start again cabinet and switch off (red button) after more than 2min ca. 5minutes dedusting pulse - push emergency stop - Close air supply - depressurize the system (see 4.3) - unscrew dust collector cover - pull a (≥ 120 l) plastic bag over the filter cartridge - unscrew nuts on the flange and pull out the filter cartridge with the plastic bag - screw the new filter cartridge and take care of the position of the seal kit. - fix collector cover
Empty dust container	- looes tightener and empty the container. WARNING! Pay attention for the local disposal regulations. I could be harzardous waste!

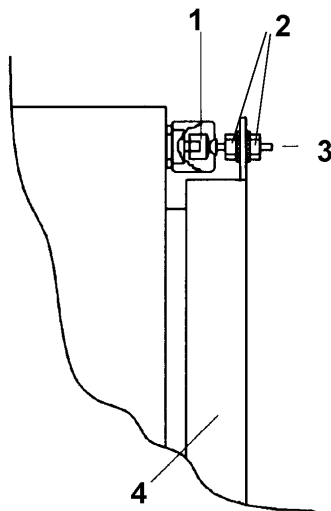
4.4.6 Window replacement

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 cleaning

5.1 Preface

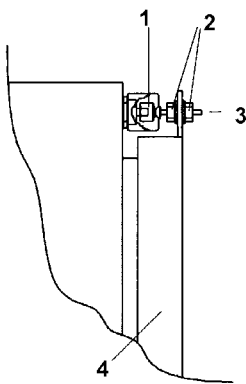
During operation the cabinets are exposed to wear. In order to ensure safe operation and high efficiency the blast machines should be maintained regularly.

		Warning! Risk of injury! Discharge completely pressure during maintenance jobs (see 4.4.1)
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5.2 If required

	Check and if necessary, replacing/ cleaning
<i>View window</i>	-cover lenses - if necessary window glass- see 4.4.6
<i>Gloves</i>	

5.3 After max. 8h of blasting

Door interlock	Check and if necessary, replace / clean
	-open doors - press pin (1). it has to return from alone
Empty dust container.	- could be necessary already after one hour
Media recovery system (cyclon)	-empty screen → Turn off exhauster. This may be necessary more often - magnet in screen .

5.4 After max. 50h 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- and blast hoses.	-gaskets and couplings for wear -blast hose by hand for soft spots

5.5 After max.150h of blasting

(1) Gasket on cabinet door.	
(2) Filter cartridge	- See 4.4.5

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

<i>Problem</i>	<i>Probable cause</i>	<i>Remedy</i>
<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 wrong direction	Reverse polarity (only through licensed electrician)
	Blast media breaks down rapidly and develops dust	- lower blast pressure - other media..
	Blocked hose between blast cabinet and reclaimer	Check and if necessary disassemble hose and remove dust and media Blockage is not the real cause.
	Ait 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 container not sealed.
<i>(2) Abnormally high media consumption.</i>	Cyclone door open or leaky.	Replace gasket.
	To fine or lightweight media.	Install and adjust supplementary a Vortex tube
	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 4.4.1).
	Reduced air pressure	- Check air supply - If the static pressure decreases during blasting, the following components should be checked: + moisture separator. + pressure regulator + interconnections
	Blocked blast hose or gun / nozzle	- Push nozzle against an elastical object (for example rubber plate) and step on the foot pedal. - Disassembly hose or gun and clean. - Look for cause of blockage: ⇒ Missing or overfilled screen in the reclaimer ⇒ Incorrectly adjusted metering valve. ⇒ Too heavy blast media.
	Worn blast gun parts	-blast nozzle

		-orifice.
	Moist blast media.	– Frequent bridging or blockage in the media metering valve can be caused by moist blast media. Causes could be as follows: ⇒ Media was filled moist → remove ⇒ Humidity from air supply → interconnect a humidifier ⇒ Condensate caused by big temperature differences → Make sure, that there is not too much temperature fluctuation
	BNP gun adjusted incorrectly. Worn blast hose.	Adjust gun new - see 4.4.2
(4) <i>Dust comes out the blower</i>	Dust filter gasket defective	-replace gasket -see 4.4.5
	Defective cartridge	- replace filter cartridge -see 4.4.5
(5) <i>Static shocks</i>		- Improve cabinet grounding. - 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 -see 4.4.7
	Polluted (blocked) moisture separator	Clean moisture separator
(7) <i>Air only (no media) comes out the nozzle</i>	No blast media in the blast circuit	refill
	Wrong connection of pneumatic hoses on foot pedal → permanent air blow off	Connect properly
	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.	-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 4.4.1).
	Orifice screwed too deep in the gun	See 4.4.2

7 Admitted modifications for users

Only with the authorization of the producer! Otherwise the equipment will loose guarantye and CE-certification.

8 Replacement parts

8.1 Piping and pneumatic connections

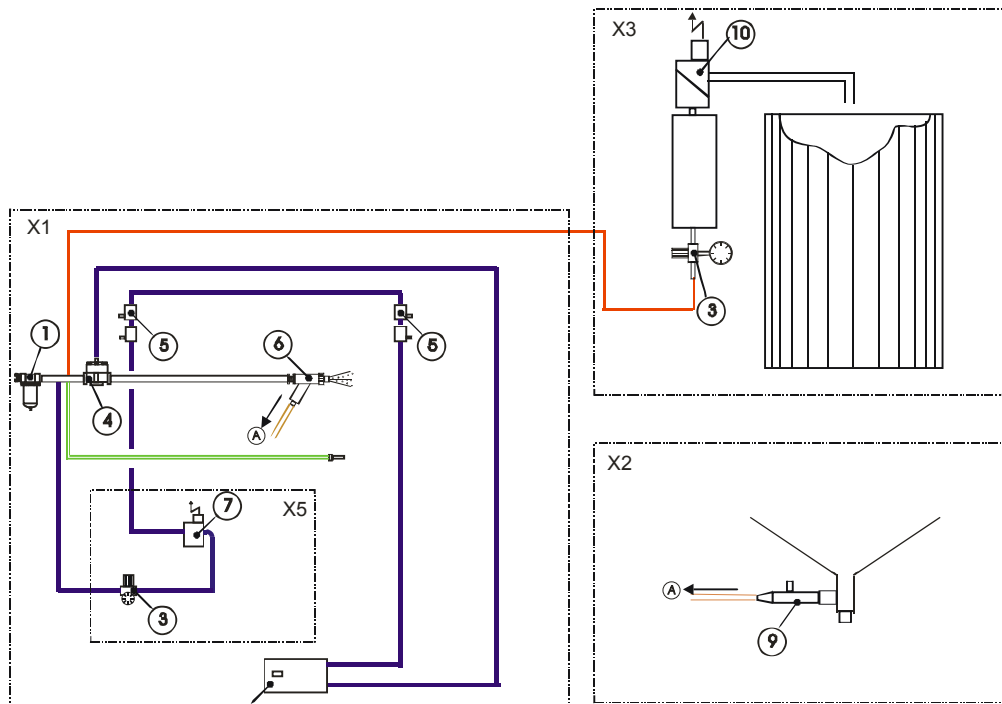


Figure10: Pneumatic connections

Pos.No	Description	Pulsar III	Pulsar VI and VI +	Pulsar VIII and VIII+
1 +4	Filter and regulator unit assy ZERO	12763Z	12763Z	12763Z
3	Pressure regulator 1/4" (Pilot) with gauge Gauge 0242 026 (Front mounting))	100061 11831Z	100061 11831Z	100061 11831Z
5	Pneumatic 3/2 ways valve (door interlock)	12202Z	12202Z	12202Z
without	Bushing safety door valve	15042Z	15042Z	15042Z
6	BNP-gun, Blast- and air hoses,	See 8.4		
7	Solenoid valve 1/8"	100741	100741	100741
8	Footpedal Pulsar	20194Z	20194Z	20194Z
9	Media metering valve	See 8.6		
10	Valve ASCO Pulsar (dedusting)	90804Z	90804Z	90804Z
without	Air hose 1/8" per Meter	12475Z	12475Z	12475Z

8.2 Cabinet assembly

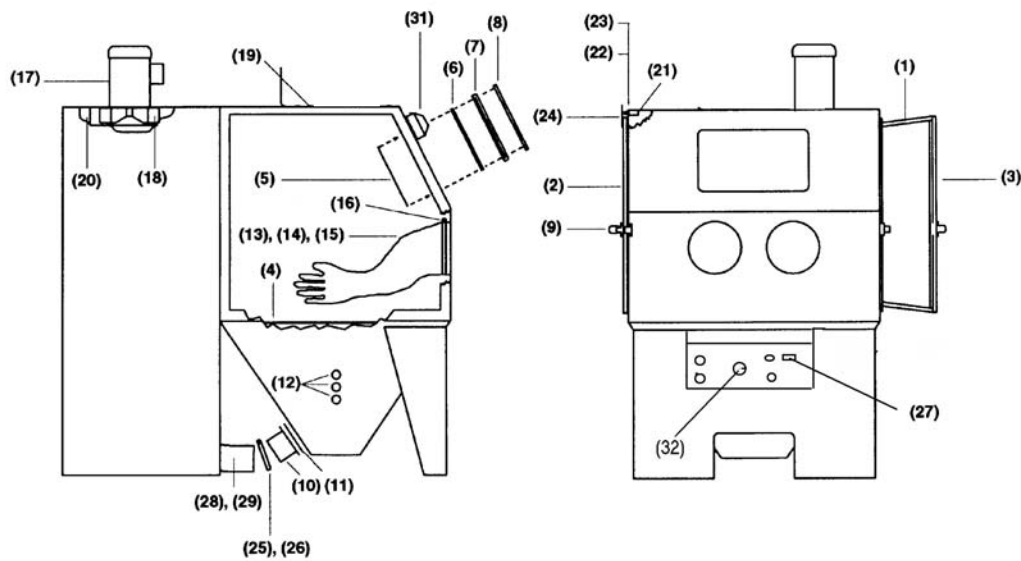


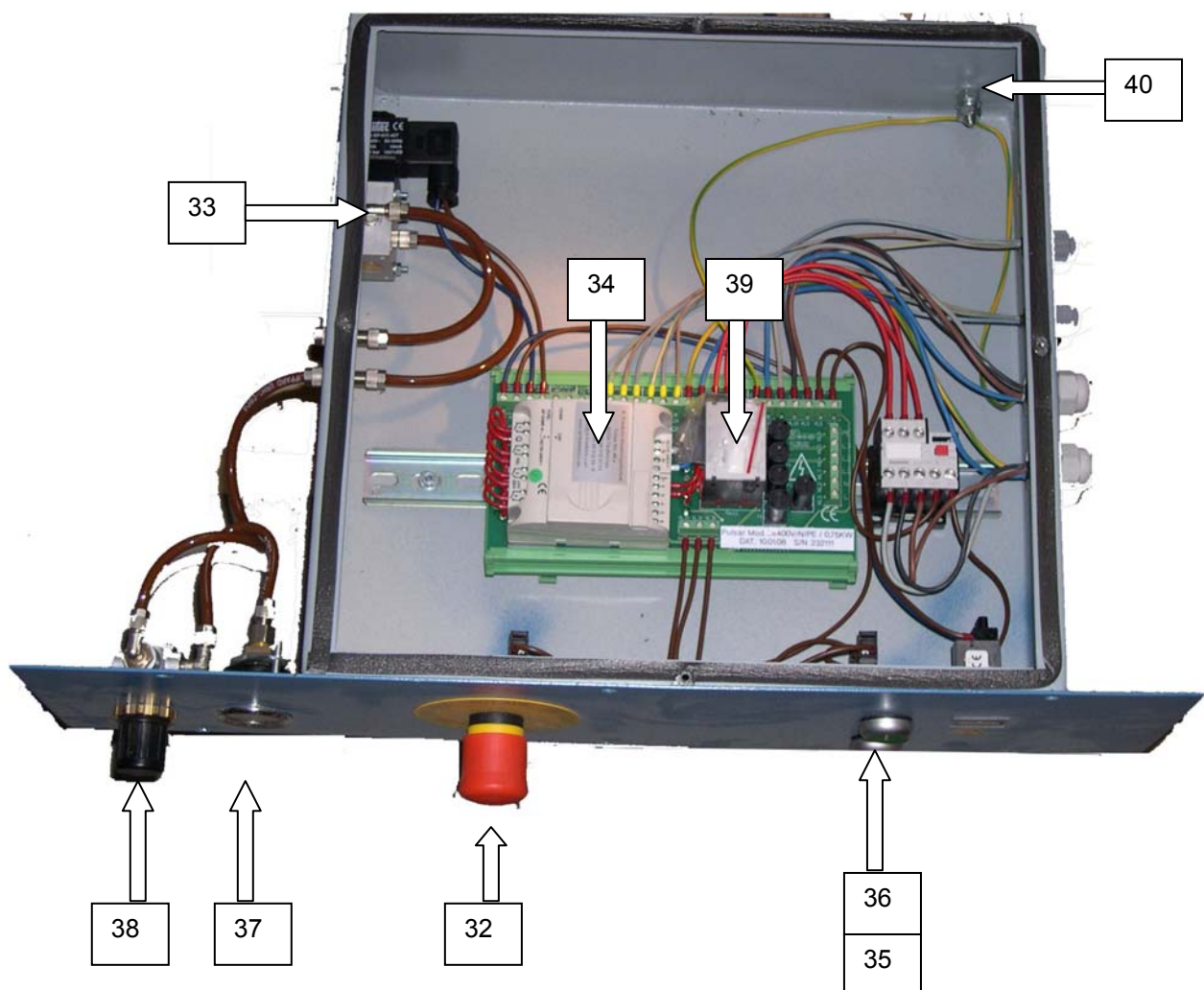
Figure 11: Single components cabinet

Pos. No.:	Description	Pulsar III	Pulsar VI and VI +	Pulsar VIII and VIII+
(1)	Door gasket per m	12434Z	12434Z	12434Z
(2)	Left door complete (blue)	100326	100328	100328
(3)	Right door complete (blue)	100327	100329	100329
(4)	Grate	11811Z	11810Z	ohne
(5)	Mylar lens cabinet (contains 5 pcs.)	06190Z	06190Z	06190Z
(6)	Window glass - small (security glass)	12212Z	12212Z	12212Z
(7)	Gasket-small window (pcs.)	12435Z	12435Z	12435Z
(8)	Filler strip small window (pcs.)	12436Z	12436Z	12436Z
(9)	Door opener special for cabinet	99585Z	99585Z	99585Z
(10)	Adaptor Ø 100 mm / 4"	12376Z	-	-
	Adaptor Ø 125 mm / 5"	-	12377Z	12377Z
(11)	Gasket Ø 100 mm / 4" for adaptor	11776Z	-	-
	Gasket Ø 125 mm / 5" for adaptor	-	11777Z	11777Z
(12)	Grommet for air hose	11798Z	11798Z	11798Z
(13)	Rubber gloves-pair	99159Z	99159Z	99159Z
(14)	Rubber glove-left	12710Z	12710Z	12710Z
(15)	Rubber glove-right	12711Z	12711Z	12711Z
(16)	Clamp (for gloves)	11576Z	11576Z	11576Z
(17)	E-Motor,230/415V, 0,75KW,B5,2800rpm	19026Z	19026Z	19026Z
(18)	Paddle	21528Z	19235Z	19235Z
(19)	Grommet (for hose 6mm)	12762Z	12762Z	12762Z

(21)	Pneumatic valve safety door	12202Z	12202Z	12202Z
(23)	Bushing safety door valve	15042Z	15042Z	15042Z
(26)	Clamp f. Ø 100 mm / 4"	90241Z	-	-
	Clamp f. Ø 125 mm / 5"		90260Z	90260Z
(29)	Suction hose PU Ø 100 mm / 4" per m	12447Z	-	-
	Suction hose PU Ø 125 mm / 5" per m	-	12449Z	12449Z
(31)	Lamp complete	19574Z	19574Z	19574Z
(-)	Lamp holder	11843Z	11843Z	11843Z
(-)	Lamp	11872Z	11872Z	11872Z

8.3 Control box

Wiring diagram (see attachments)



<i>Pos. No.:</i>	<i>Description</i>	Pulsar III	Pulsar VI and VI +	Pulsar VIII and VIII+
(32)	Emergency STOP button	100742	100742	100742
(33)	Solenoid valve 1/8"	100741	100741	100741
(34)	Module - Pulsar	100735	100735	100735
(35)	Push button (green)	100736	100736	100736
(36)	Push button (red)	100737	100737	100737
(37)	Gauge	11831Z	11831Z	11831Z
(38)	Pressure regulator	100061	100061	100061
(39)	Fuses F1 to F5 per piece	100743	100743	100743
(40)	Earth screw M8	100732	100732	100732

8.4 Suction guns and support

8.4.1 BNP gun

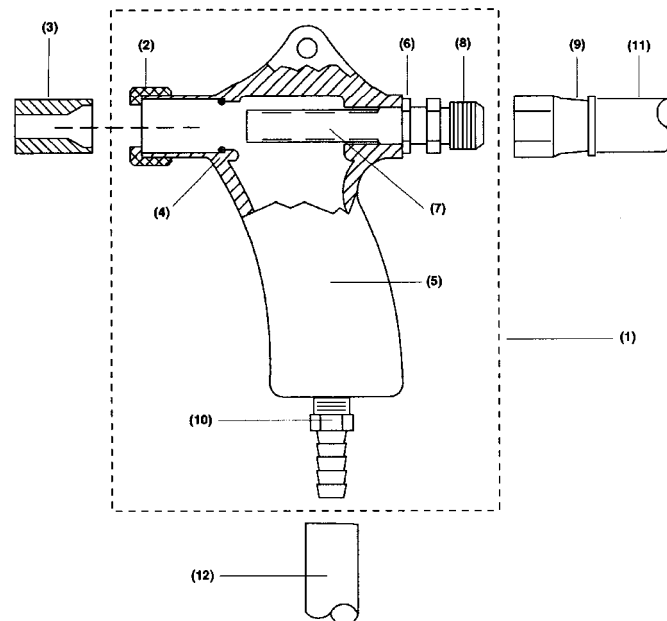


Figure 12: Spare parts BNP gun

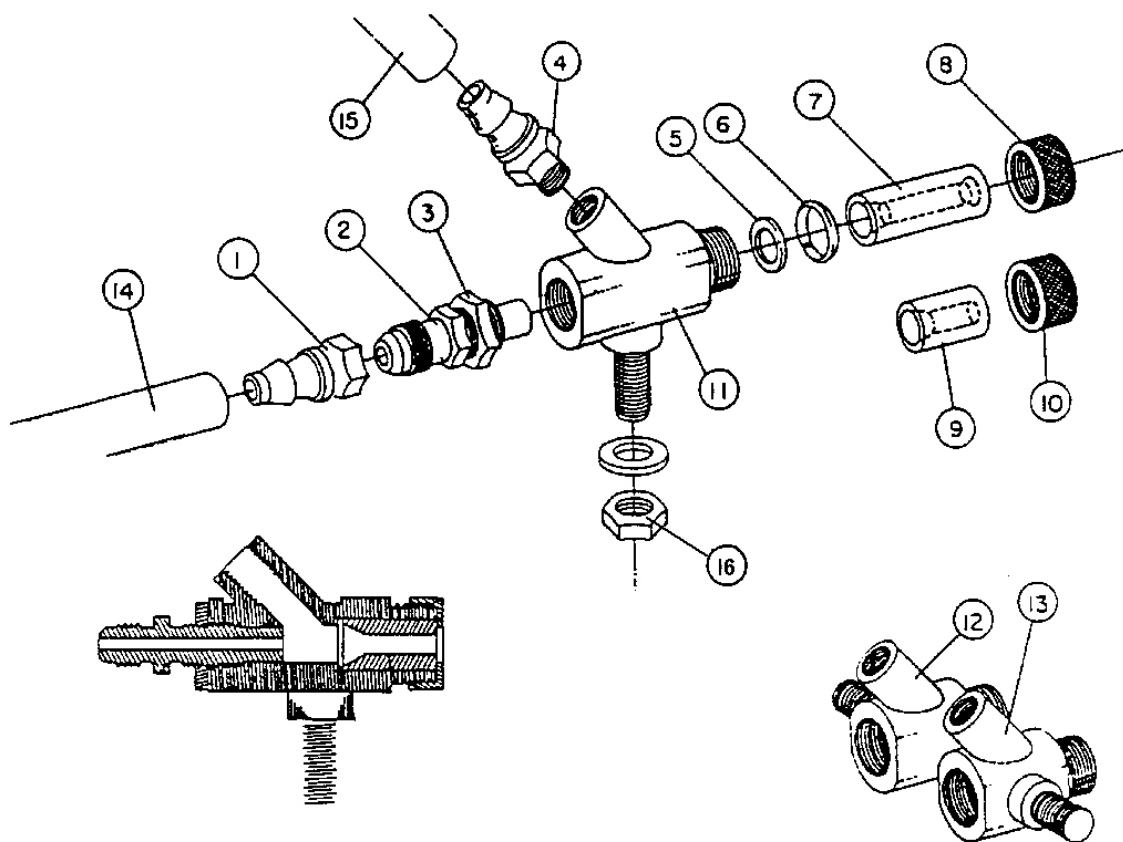
<i>Pos.</i>	<i>Description</i>	Part no.:
	Suction gun with 6 mm Boron Carbide nozzle	100766
	Suction gun with 8 mm Boron Carbide nozzle	100534
	Suction gun with 9,5 mm Boron Carbide nozzle	100908
	Suction gun with 8 mm Boron Carbide nozzle-flat jet	100703
	Gun complete with boron carbide nozzle 9,5 mm (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

Available only with support (see 8.5.2)



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 Cyclon

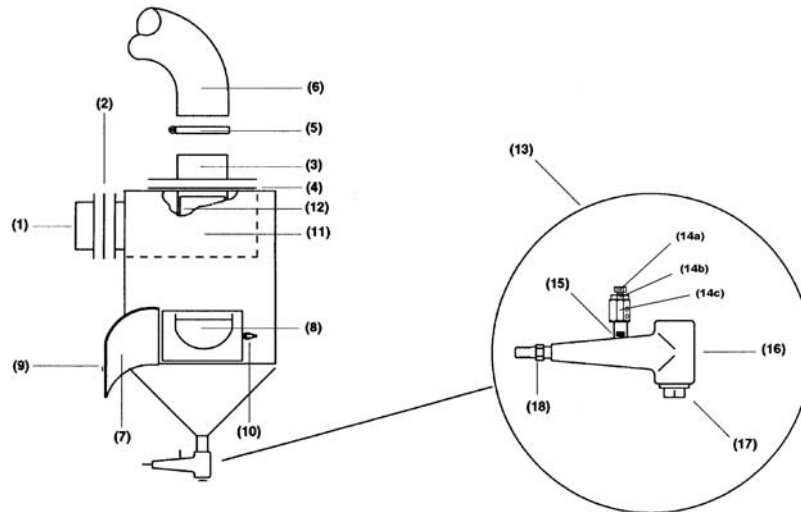


Figure 14: Single components cyclone

Pos.	Description	Pulsar III	Pulsar VI & VI+	Pulsar VIII & VIII +
(-)	Cyclone Pulsar suction	20340Z	20341Z	20341Z
(1)	Adaptor Ø 100 mm / 4" cyclone inlet	12365Z	-	-
	Adaptor Ø 125 mm / 5" cyclone outlet		12361Z	12361Z
(2)	Gasket for Ø 100 mm / 4" adaptor	11746Z		
	Gasket for Ø 125 mm / 5" adaptor		11779Z	11779Z
(3)	Adaptor Ø 150 mm / 6" cyclone outlet	20343Z	20343Z	20343Z
(4)	Gasket for outlet adaptor pro m	99751Z	99751Z	99751Z
(5)	Clamp for Ø 150 mm / 6"	90261Z		
(6)	Suction hose Ø 125 mm / 5"	12449Z		
	Suction hose Ø 150 mm / 6"		12452Z	12452Z
(7)	Gasket 0235 0113 cyclone door	11745Z	11745Z	11745Z
(8)	Screen new reclaimer	21265Z	21265Z	21265Z
(9)	Door	14271Z	14271Z	14271Z
(10)	Hook Assy 0654-0006	12263Z	12263Z	12263Z
(11)	Rubber lined plate	11984Z	11985Z	11985Z
(13)	Metering valve Assy	12417Z	12417Z	12417Z
	Metering valve for Sputnik	see		
(14a)	Screw adjusting ZERO	100790	100790	100790
(14b)	Nut adjusting stem lock	100791	100791	100791
(14c)	Stem metering adjusting	100789	100789	100789
(15)	Nipple	12148Z	12148Z	12418Z
(16)	Housing	11532Z	11532Z	11532Z
(17)	Pipe plug 1" NPT 0371-006	12011Z	12011Z	12011Z
Option	Sputnik	Not possible	12322Z ^{*1)}	12322Z ^{*1)}

*1) Only Pulsar VI + and VIII +

Metering valve for Sputnik

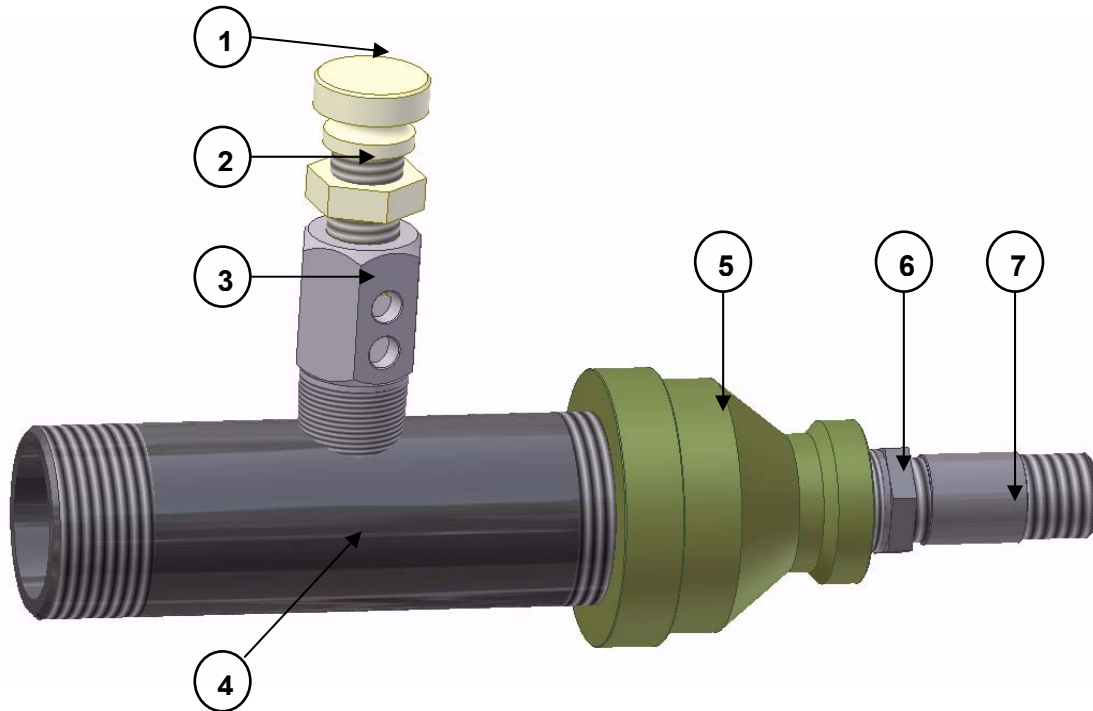


Figure: Metering valve for Sputnik

Pos.-no.:	Part no.	Description
1	100790	Screw adjusting
2	100791	Nut, adjusting stem lock
3	100789	Stem, metering adjusting
4	11534	Body, metering valve
5	12024	Bell reducer
6	12818	Pipe bushing
7	11912	Pipe nipple
1-7	12420	Complete assembly

8.6 Dust collector and exhauster

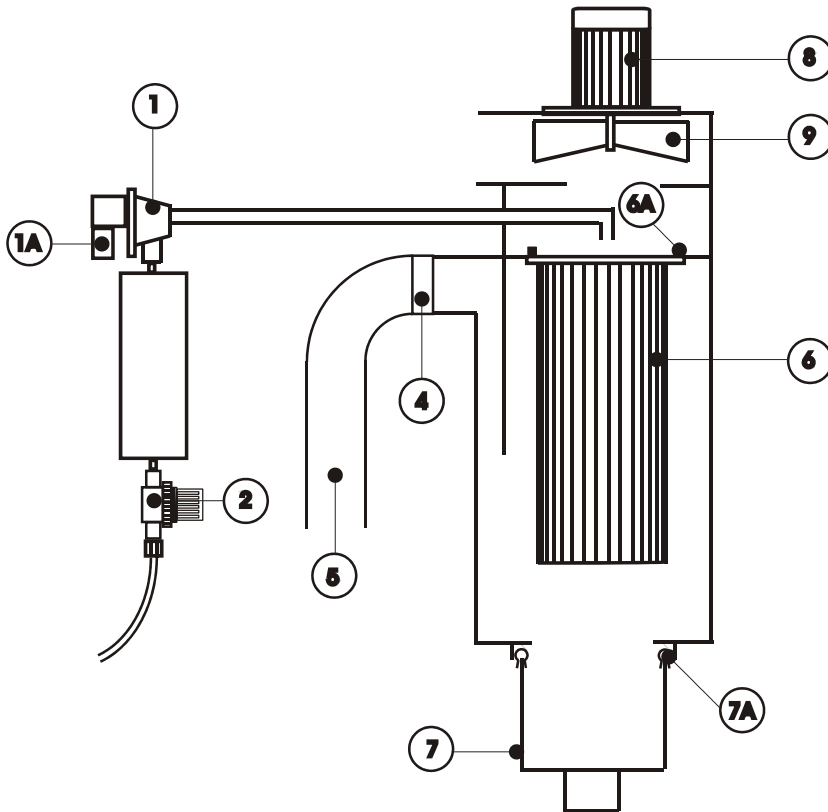


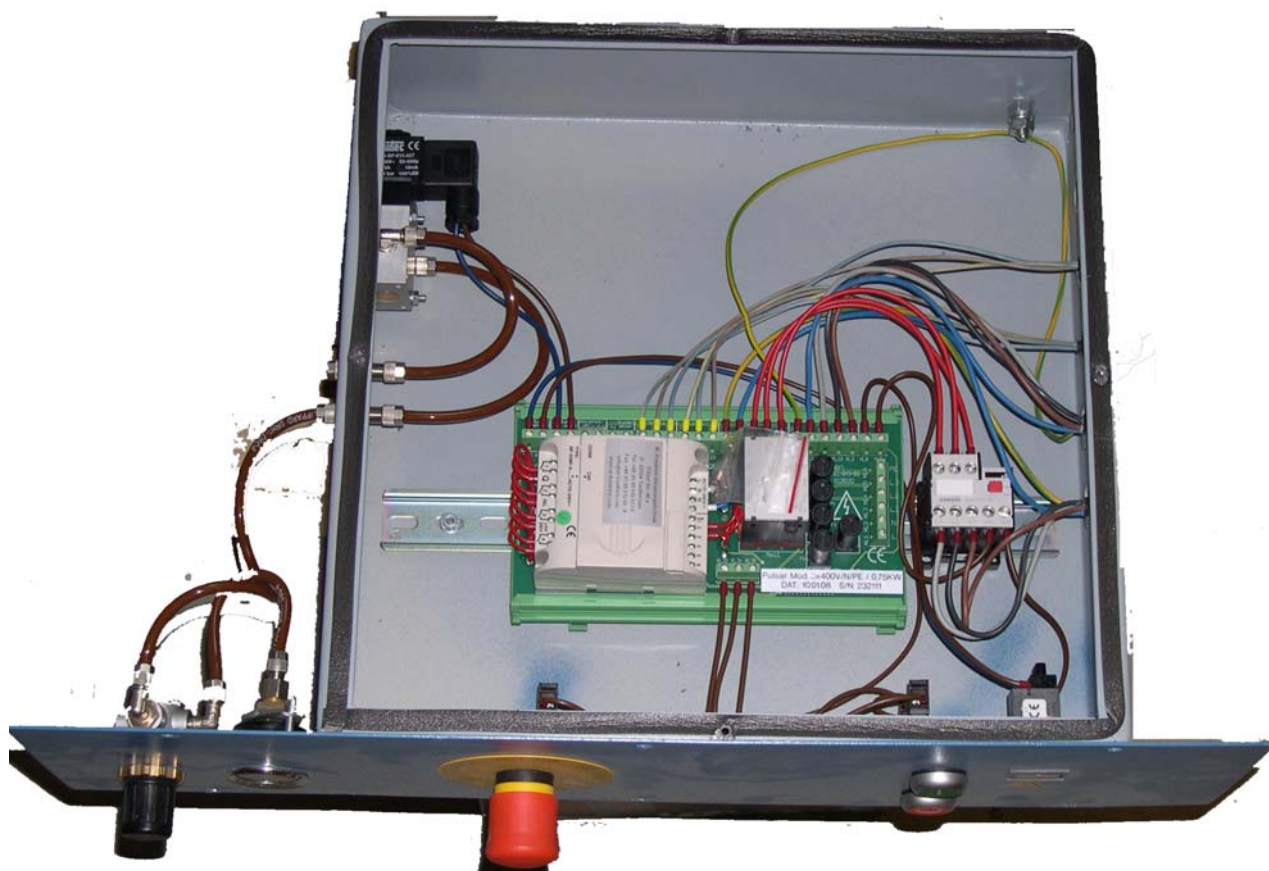
Figure 15: Single components dust collector and exhauster

Pos.	Description	Pulsar III	Pulsar VI a. VI+	Pulsar VIII a. VIII+
(1)	Valve ASCO Pulsar	90804Z		*1)
(1A)	E-Magnetic 220V	100039		
(2)	Regulator (pilot) 1/4" with gauge	100061		
(4)	Clamp for Ø 150 mm / 6"	90761Z		
	Clamp for Ø 125 mm / 5"	90260Z		
	Calmp for Ø 100 mm	90241Z		
(5)	Suction hose Ø 150 mm / 6" per m	12452Z		
	Suction hose Ø 100 mm / 4" per m	12477Z		
(6)	Filter cartridge	100537		
(6A)	Screw per pcs. M10 x 45	99081D		
(7)	Dust container	*1)	*1)	*1)
(7A)	Gasket dust container	100832 → 2m		
(8)	Motor	19026Z		
(9)	Paddle Pulsar III and VI	19235Z		

*1) no part no. available

8.7 Control box- for 3 x 400 V, 0,75 kW

Wiring diagram: see attachment



8.8 Options

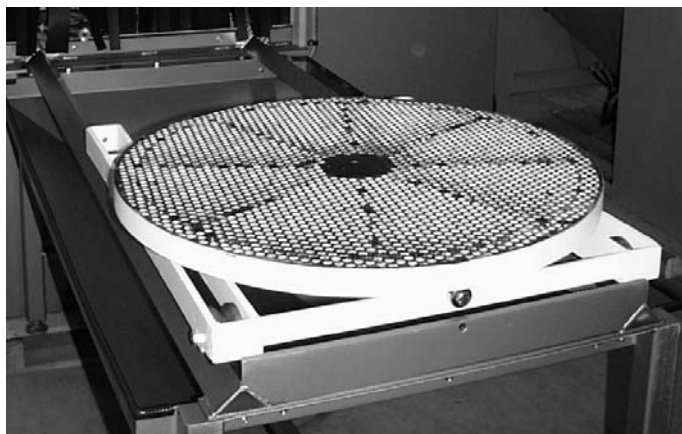


Figure 9: Track assembly: truck, hopper, work car with turntable

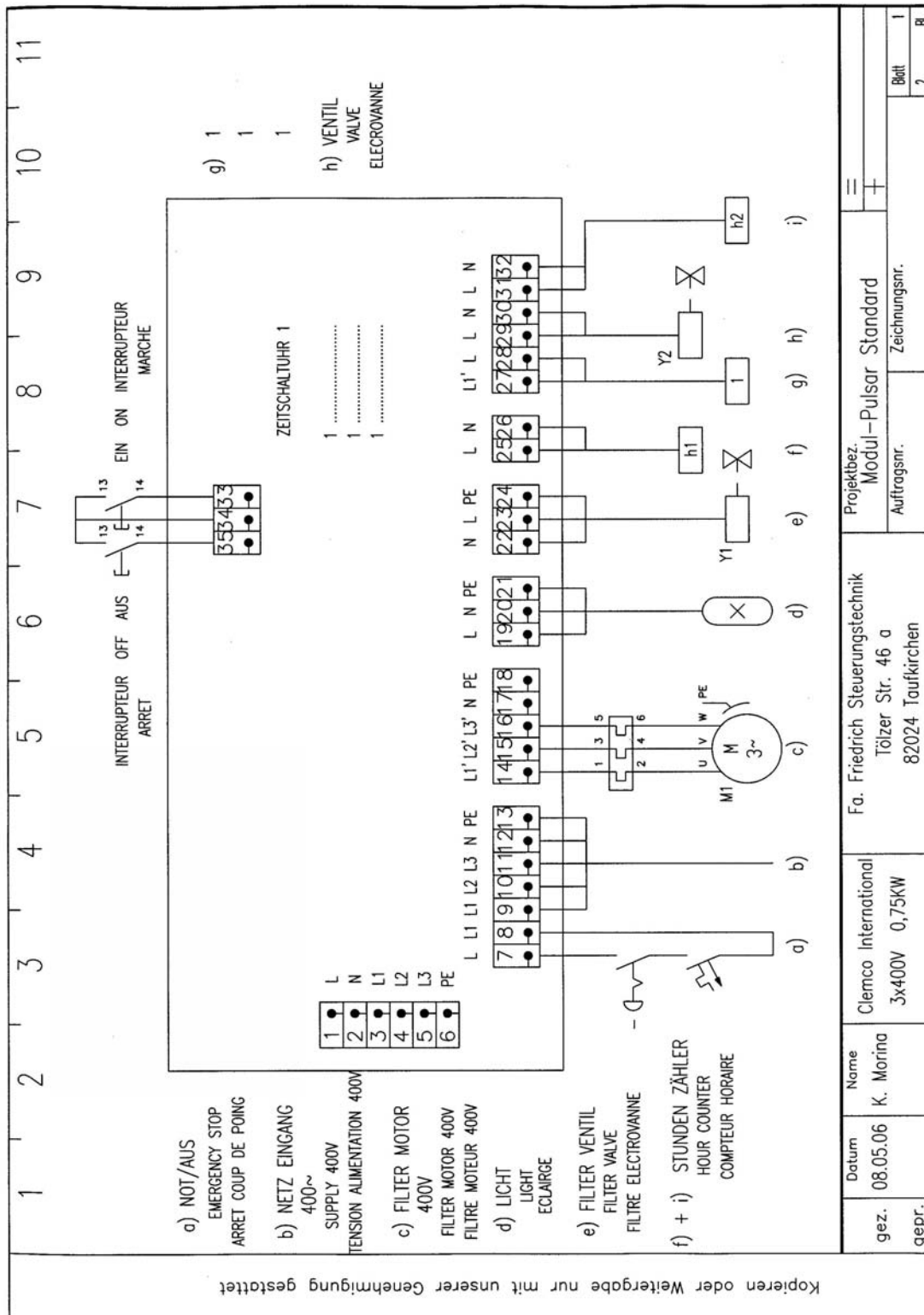
<i>Pos.</i>	<i>Description</i>	Pulsar III	Pulsar VI and VI +	Pulsar VIII and VIII+	Re-fitting requirements
(-)	Turntable, truck, hopper + work car	13530Z	12835Z	12835Z	Opening for rails
(-)	turntable Ø 760 mm only	90881Z	90881Z	90881Z	
(-)	wheel for work car without bearing	90987Z	90987Z	90987Z	
(-)	Stationary turntable Ø 760 mm complete	99840Z	99840Z	99840Z	keine
(-)	Gate 300 x 300 mm (per pcs.)	100282	100282	100282	Openings in door
(-)	Gate 400 x 400 mm (per pcs.)	*1)	100283	100283	Openings in door
(-)	Port 300 x 300 mm including mounting	90681Z	90681Z	90681Z	Openings in door
(-)	Port 400 x 400 mm including mounting	*1)	100302	100302	Openings in door
(-)	Tumble 4,5 l complete with E-motor 230V (door mounting possible))	100549	100549	100549	Openings in door Setting electrical connections
	Tumble 30 l complete with E-Motor 230V (door mounting possible)	Not recommended	100548	100548	Openings in door Setting electrical connections
(-)	Tool for window installation	12176Z	12176Z	12176Z	

*1) not possible

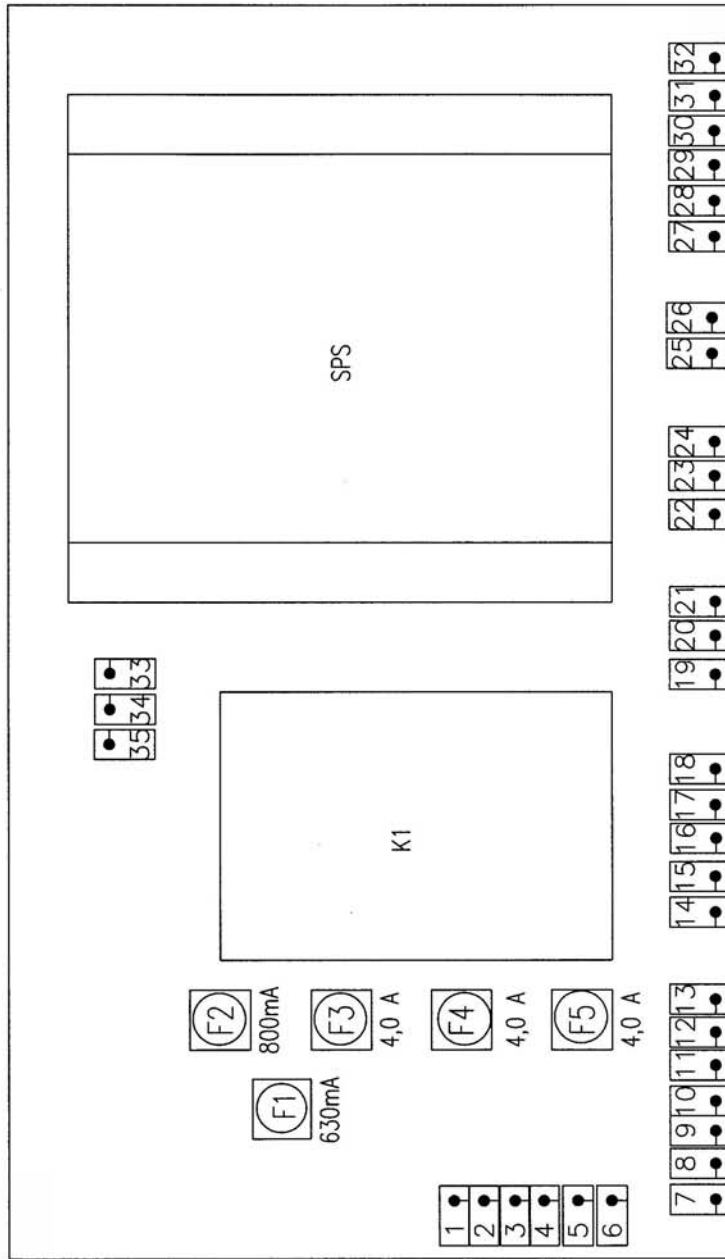
8.8.1 Further options

	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

Attachement: Wiring diagram



- PAUSE - 40 sec
- PULS - 0.5 sec



F3-F5	Motor Sicherung	F2 Beleuchtung	F1 Steuersicherung
F3-F5	Fuses For The Motor	F2 Light	F1 Control Fuse
F3-F5	Fusibles Pour Le Moteur	F2 Eclairage	F1 Fusible de Commande

gez.	Datum 08.05.06	Name K. Morina	Clemco International 3x 400V 0,75KW	R. Friedrich Steuerungstechnik Toelzer Str. 46 a D-82024 Taufkirchen	Projektbez. Modul-Pulsar Standard	=
gepr.					Auftragsnr.	Blatt 2
					Zeichnungsnr.	2 Bl.