

# OWNER'S MANUAL

## SPINNERBLAST INTERNAL PIPE CLEANER

### IMPORTANT WARNING FOR SAFER BLAST CLEANING

1. Use protective equipment: Abrasive-resistant clothing, safety shoes, leather gloves, ear protection, CE-approved air-fed helmet. Air for helmet must be supplied by a breathing air compressor or through a helmet air filter.
2. Check for possible silicosis hazards. Avoid dust.
3. Do not blast with damaged or worn equipment.
4. Point nozzle only at area being cleaned.
5. Use only proper dry and well-screened abrasives specifically intended for blasting.
6. Keep unprotected workers out of the blast area.
7. Before blasting:
  - Check fittings and hose for wear.
  - Safety-wire couplings together.
  - Check helmet filters and air supply.
  - Check pop-up valve for alignment.
  - Test remote controls.
  - Make sure blast machine is adequately grounded.
8. Do not weld on blast machine, this voids approval.
9. Do not substitute Airblast parts or modified equipment in any way.



## AIRBLAST B.V.

P.O. Box 1075  
1700 BB Heerhugowaard  
The Netherlands  
Tel. : + 31-72-5718002  
Fax : + 31-72-5714340  
E-mail : [info@airblast.com](mailto:info@airblast.com)  
Web : [www.airblast.com](http://www.airblast.com)

# SPINNERBLAST INTERNAL PIPE CLEANER

## 1.0 INTRODUCTION

**1.1 General description:** The Spinnerblast tool cleans the interior of pipes up to 40' long and ranging in size from 8" (210 mm) to 35" (890 mm) I.D. The tool connects to most abrasive blasting machines in place of a standard nozzle. As the tool passes through the length of the pipe being cleaned, abrasive is ejected by two special nozzles mounted on a rotating head. Optimal rotating speed is controlled by the braking system. An adjustable centering carriage supports the tool through the pipe internal. The chart below shows the recommended centering legs, nozzle sizes and compressor capacities for different pipe diameters.

### IMPORTANT WARNING

**Failure to perform proper maintenance, particularly when dust seals are involved, will result in severe damage to this tool. Read all the instructions carefully.**

## 2.0 SET-UP AND OPERATION

**2.1 Equipment and materials required:** The system set-up for the Spinnerblast operation is the same as for any other blast cleaning operation, i.e. an air compressor, an optional moisture separator, a blast machine, a helmet air supply system, an additional pipe lance of the same length as the pipe to be internally cleaned and two Airblast CFT couplings. Consult the chart below to determine the proper carriage size.

Abrasive to be used for optimal operation is between 16 (1.2 mm) to 35 (0.5 mm) mesh size, except for Aluminum Oxide and Silicon Carbide (sand). These two abrasives shorten the tool's life unacceptably.

**2.2 Centering carriage:** The carriage fits to the Spinnerblast as one assembly (see drawing page 4). It consists of two collars, three two-wheel roller bars and four sets of centering legs (6 legs p/set).

**2.2.1 Set-up:** Select the appropriate set of centering legs; mount them to the collars and roller bars as shown in drawing on page 4. Nuts and bolts are provided with the Spinnerblast set.

**2.2.2** Mount the centering legs on the roller bar according drawing on page 4.

**2.2.3** With the centering legs in place at the right angles to the collars, the wheels should be perpendicular the center line of the tool.

**2.2.4** Insert the tool in the collar and fix it with the locking screws.

**2.3 SPINNERBLAST OPERATION:** Before operation, check the rotating head on drag. There should be some drag, caused by the leather dust seal, to protect the ball bearings. If the head rotates without drag caused by the tightening of the leather dust seal, tighten the rubber lined nipple at the rear of the unit and lock it with the locking nut for the rear end plate (page 3, pos. 23). Couple the blast hose to one end of the pipe lance and the Spinnerblast to the other end with Airblast CFT couplings (or leave the lance out). Pipes to be cleaned can be kept in stacks.

Insert the Spinnerblast just inside the pipe with the blast hose running through the pipe. Now apply air only to the tool and check that no air or dust is escaping from the four pressure relief holes in the rear end plate (page 3, pos. 21). If so, the pressure on the leather dust seal is insufficient or it's worn. A worn-out dust seal causes severe damage to the tool within several minutes.

Having checked the Spinnerblast add abrasive to the air. The air/abrasive mixture to the tool

PIPE I.D.	NOZZLE SIZE	CENTERING LEGS	COMPRESSOR SIZE
8"-10" (210-260 mm)	6.0 mm orifice	12 cm	250 cfm (7 cbm)
11"-22" (284-560 mm)	8.0 mm orifice	19 cm	365 cfm (10.5 cbm)
23"-36" (580-915 mm)	9.5 mm orifice	29 cm	600 cfm (17 cbm)

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should be rich. A mixture too lean causes premature wear on the rotating head. Pull the Spinnerblast towards you very steadily. The cleaning result is determined by the speed of movement.

Before cleaning a pipe, always check for drag.

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## 3.0 Maintenance

**3.1 Leather dust seal (pos. 19):** The seal must be kept under adequate pressure to protect the bearings. It must never be allowed to wear through. On a new tool with your choice of abrasive, check the leather dust seal every 3 hours for wear. Drag should be checked before the cleaning of each new pipe. To replace the leather dust seal, loosen lock nut (pos. 23) and unscrew the rubber lined nipple (pos. 24). Now remove the rear end plate (pos. 21). Be careful with the Tungsten Carbide washer (pos. 20), do not drop it. Clean the exposed bearing seal (pos. 18) and the grooved end of the tube casting (pos. 13). Lubricate the exposed parts with vaseline or cup grease and install a new leather seal with the smooth side towards the bearing seal (pos. 18). After re-assembly, set the proper drag.

**3.2 Tungsten Carbide washer (pos. 20):** Replace the washer before the opening gets wider than the one of the tube casting.

**3.3 Nozzles (pos. 4):** Rotate both blast nozzles ¼ turn each day to create even nozzle wear for longer nozzle life.

**3.4 Nozzle head and plug (pos. 1 and 2):** Replace the nozzle head plug (pos. 1) every 8 hours, unless experienced longer or shorter life (life is influenced by operating pressure, type of abrasive and type of nozzle). Also replace the nozzle head when it's worn out. When removing or replacing either the nozzle head or plug, remove the set screw (pos. 9) from the brake housing (pos. 3) and insert a proper size screw-driver into the hole to prevent the tube casting from turning.

**3.5 Brake lining (pos. 12):** Inspect this part daily. Replace before it wears so thin that it damages the brake shoe or housing (pos. 3).

**3.6 Lock ring / bearing seal (pos. 17 and 18):** To replace tube casting (pos. 13) or bearings (pos. 15), the lock ring (pos. 17) must be removed from the tube after the bearing seal (pos. 18). Never re-use the lock ring or bearing seal.

## 4.0 TROUBLESHOOTING

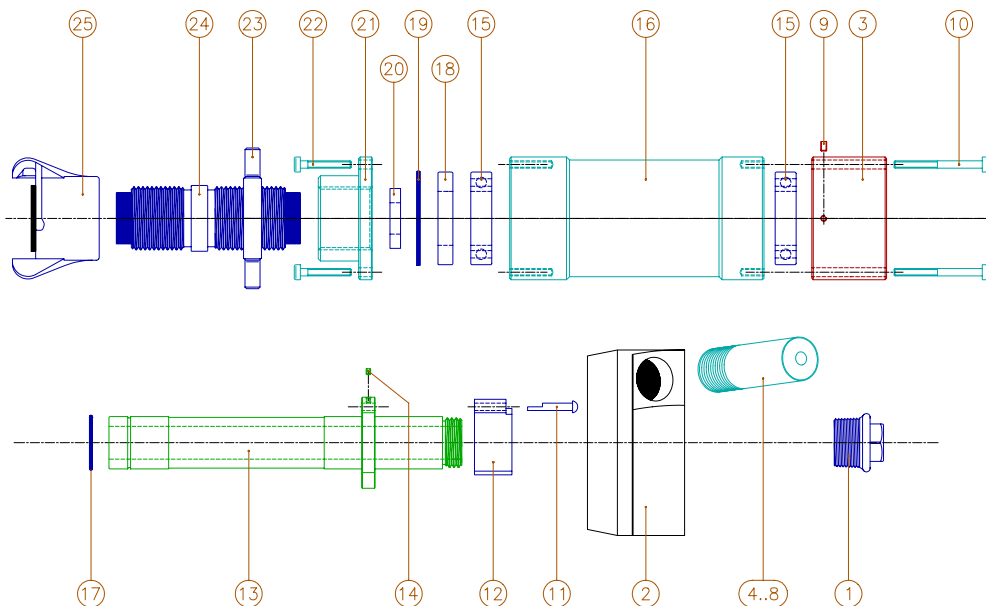
PROBLEM	CAUSE	REMEDY
Abrasive or air escaping the holes in the rear end plate.	Leather dust seal is not tight enough. Leather dust seal is worn out.	Tighten rubber lined nipple (pos. 24) Check leather dust seal (pos. 19)
Nozzle head does not rotate or rotates too slow.	Insufficient air pressure. Clogged nozzle. Excessive pressure on seals.	Check compressor and hoses. Remove obstruction or nozzle. Loosen rubber lined nipple (pos. 24).
Nozzle head rotates too fast.	Worn out brake (pos. 12). Nozzle are worn out. Leather dust seals too loose.	Replace brake. Replace nozzles. Tighten rubber lined nipple (pos. 24)
Vibrating unit.	One nozzle is clogged. Unbalanced nozzle orifices. Loose centering carriage.	Remove obstructions or nozzle. Use two new identical nozzles. Tighten all bolts on carriage.
Spinnerblast runs hot.	Oil residue on brake lining.	Clean both brake and housing.
Spinnerblast runs too slow and hooks at one point in the cycle.	Damaged leather dust seal. Damaged brake shoe and / or lining. Brake housing worn out or damaged.	Change leather dust seal. Change complete brake shoe (pos. 12) Change brake housing (pos. 3)

# SPINNERBLAST INTERNAL PIPE CLEANER

## 5.0 SPARE PARTS

ART.NR.	MODEL	DESCRIPTION	
30300	SB-636-A	Spinnerblast complete, incl. SPB-19 carriage, without nozzle	
01)	30330	SPB-25/1	* Pipe plug 1" (25 mm) (4)
02)	30350	SPB-1	* Rotating nozzle head (1)
03)	30360	SPB-2	Brake housing
04)	21070	SB-13	Nozzle TC – 6.0 mm orifice, 49 mm long
05)	21080	SB-14	Nozzle TC – 8.0 mm orifice, 49 mm long
06)	21090	SB-15	Nozzle TC – 8.0 mm orifice, 80 mm long
07)	21100	SB-16	Nozzle TC – 9.5 mm orifice, 49 mm long
08)	21110	SB-17	Nozzle TC – 9.5 mm orifice, 103 mm long
09)	30370	SPB-7	Set screw M6 x 8 mm
10)	30380	SPB-18	Machine screw 65 mm
11)	30390	SPB-27	* Locking pin (1)
12)	30400	SPB-4	* Brake with lining (1)
13)	30410	SPB-5/1	* Tube (1)
14)	30430	SPB-20	Set screw M5 x 6 mm
15)	30440	SPB-6	* Double seal light bearing (2)
16)	30450	SPB-12	Main body
17)	30460	SPB-21	* Tube lock ring (2)
18)	30470	SPB-8	* Bearing seal (1)
19)	30480	SPB-22/1	* Leather dust seal (30)
	30481	SPB-22/2	Teflon dust seal
20)	30490	SPB-9/2	* Washer, Tungsten Carbide (2)
21)	30500	SPB-9/1	End plate, rear
22)	30510	SPB-24	Machine screw 35 mm
23)	30520	SPB-11	Locking nut for rear end plate
24)	30530	SPB-10	* Rubber lined nipple 1¼" (32 mm) (2)
25)	21630	CFT	CFT Quick coupling (cast iron)

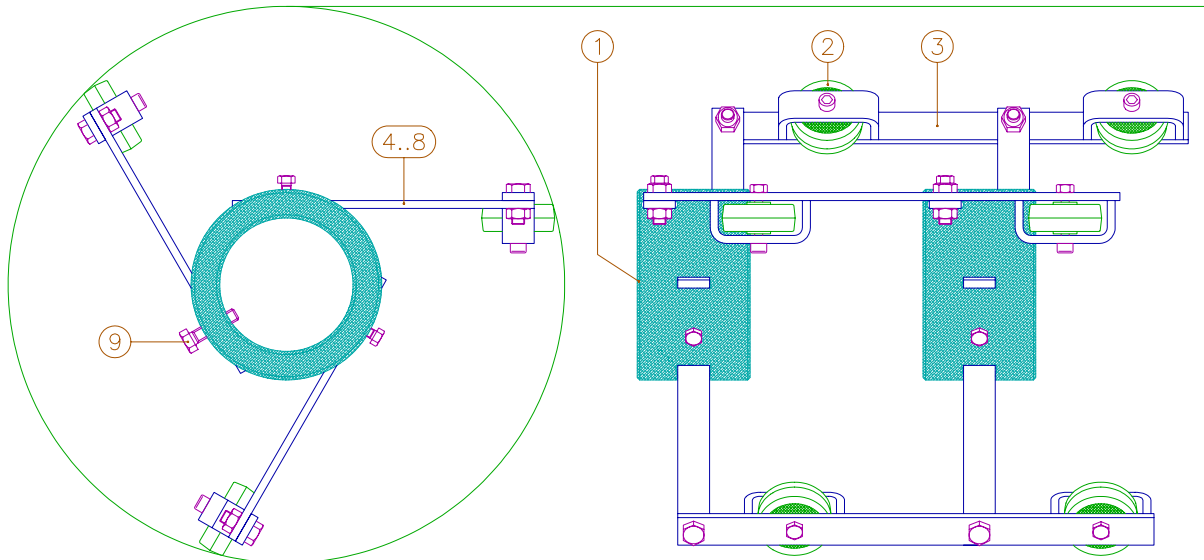
All (\*)-marked items are included in Spinnerblast Spare Parts kit (art.nr. 30320) in quantities shown ( ).



# SPINNERBLAST INTERNAL PIPE CLEANER

## 6.0 SPARE PARTS

ART.NR.	MODEL	DESCRIPTION
30550	SPB-19	Adjustable centering carriage for Spinnerblast
01) 30590	SPB-19/3	Carriage collar
02) 30560	SPB-19/1	Carriage wheel
03) 30570	SPB-19/1-1	Arms with wheels
04) 30580		Set of centering legs (24 pieces)
05) 30600	SPB-19/12	Centering leg 12 cm For pipe ID 8" – 10" (210 – 260 mm) (6 required)
06) 30610	SPB-19/19	Centering leg 19 cm For pipe ID 10" – 15" (260 – 380 mm) (6 required)
07) 30620	SPB-19/29	Centering leg 29 cm For pipe ID 15" – 23" (380 – 580 mm) (6 required)
08) 30630	SPB-19/46	Centering leg 46 cm For pipe ID 23" – 35" (580 – 890 mm) (6 required)
09) 30631		Collar locking screw



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PIPE DIAMETER (mm)	TOOL	TOOL RANGE (mm)	CENTERING DEVICE	REQUIRED NOZZLE	AIR CONSUMPTION (cfm) (m <sup>3</sup> /min)	
1 3/8" – 2 3/8" (35 – 60 mm)	CB-0	1 3/8" – 2 3/8" (35 – 60 mm)	-	-	400	11.3
2" – 12" (50 – 304 mm)	CB-1 CB-2	2" – 3" (50 – 76 mm)	- -	AHBN-8 AHBN-10	225 400	6.4 11.3
	CB-1 CB-2	3" – 5" (76 – 127 mm)	CBC-1 CBC-1	AHBN-8 AHBN-10	225 400	6.4 11.3
	CB-2	5" – 12" (127 – 304 mm)	CBC-2	AHBN-10	400	11.3
8" – 36" 210 – 915 mm)	SB- 636-A	8" – 10" (210 – 260 mm)	SPB-19 Use 120 mm legs	2 x ASB-13 2 x ASB-14 2 x ASB-16	200 300 400	5.7 8.5 12.8
	SB- 636-A	11" – 12" (284 – 304 mm)	SPB-19 Use 190 mm legs	2 x ASB-15	300	8.5
	SB- 636-A	23" – 36" (580 – 915 mm)	SPB-19 Use 290 mm legs	2 x ASB-17	450	12.8



## **Airblast Group**

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P.O. Box 1075  
1700 BB Heerhugowaard  
The Netherlands  
Tel. : + 31 72 5718002  
Fax : + 31 72 5714340  
E-mail: info@airblast.com  
Web : www.airblast.com

### **Airblast Middle East L.L.C.**

P.O. Box 33419  
Dubai  
United Arab Emirates  
Tel. : + 971 4 3242776  
Fax : + 971 4 3242778  
E-mail: airblast@emirates.net.ae

### **Airblast Saudi Arabia**

P.O. Box 30476  
Al-Khobar 31952  
Kingdom of Saudi Arabia  
Tel. : + 966 3 8473178  
Fax : + 966 3 8471430  
E-mail: info@airblast.com.sa

### **Asia Airblast Pte Ltd.**

56, Tech Park Crescent  
Tuas Tech Park  
Singapore 638085  
Tel. : + 65 6266 6010  
Fax : + 65 6266 6968  
E-mail: airblastsg@singnet.com.sg

### **AB Corrosion Control Equipment Sdn Bhd**

No. 33, Jalan Permas 3/18  
Bandar Baru Permas Jaya  
81750 Masai, Johor Darul Takzim  
Malaysia  
Tel. : + 60 7357 7989  
Fax : + 60 7357 7689  
E-mail: airblastmy@airblastasia.org