

# ***OWNER'S MANUAL***

## ***Pipe cleaning tool***

### ***HOLLO-BLAST JUNIOR***

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## 1 Scope of manual

This owner's manual applies exclusively to the operation and maintenance of the HOLLO-BLAST JUNIOR pipe cleaning tool.

The owner's manual for the blast machine must also be observed.

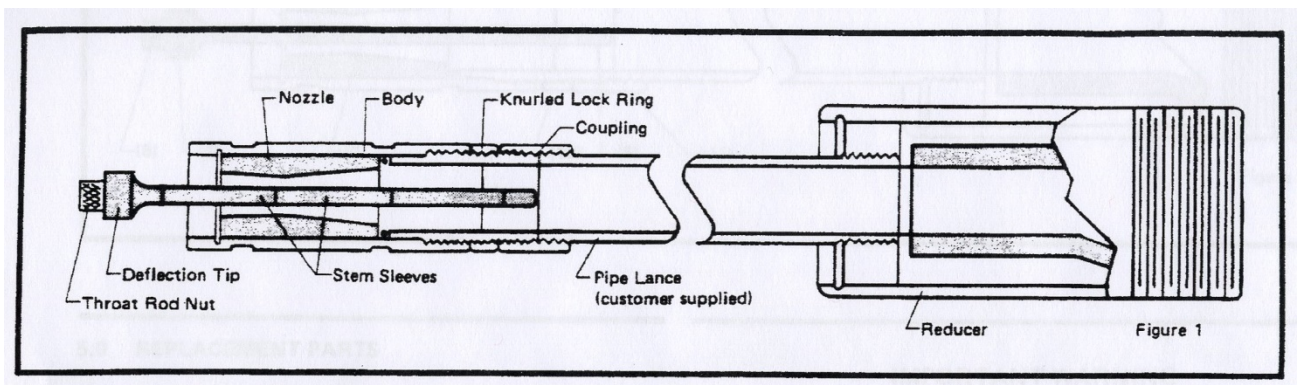
## 2 Application and restrictions

The HOLLO-BLAST pipe cleaning tool is designed to blast the inside of pipes with diameters between DN 19 and DN 50.

The compressor must be able to supply 136 m<sup>3</sup>/h (80 cfm) at a pressure of 7bar (100 p.s.i.) at the nozzle.

All standard blast media can be used. However, increased wear is to be expected when using aluminium oxide and silicon carbide. The blast media must be dry, free of impurities and may have a max. grain size of 0.4 mm.

## 3 Description of the equipment



**Figure 1:** HOLLO-BLAST JUNIOR pipe cleaning tool

Figure 1 shows the main components of the HOLLO-BLAST JUNIOR pipe cleaning tool.

- *Centering rings for 4 different pipe diameters (between DN 19 and DN 50)*
- *Housing with*
  - *Nozzle*
  - *Cone for blast media deflection*
  - *2 carbide tubes to protect the threaded rod for the cone*
  - *Threaded rod*
- *Reducer for nozzle holder HEP-1 or 2*

The HOLLO-BLAST JUNIOR pipe cleaning tool is connected to the blast machine in place of the nozzle and is intended for one-man operation. It directs the blast media/air mixture to the cone. The cone deflects the blast media so that the pipe to be cleaned is blasted evenly across its internal diameter as the pipe cleaning tool is pulled slowly through the pipe. The centering device ensures that

the tool is centred in the pipe. The extension pipe with 3/8" thread must be provided on site. The length is based on the length of pipe that is to be blasted.

## 4 Operation

### 4.1 Requirements

#### 4.1.1 Blast equipment

Blasting with the HOLLO-BLAST JUNIOR pipe cleaning tool requires the same blast equipment as the blasting process with a nozzle.

- Blast machine
- Compressor for the air supply
- Blast hose
- Protective equipment for the operator
- Extraction or blowing out of the used blast media from the pipe

#### **Important!**

- 1) Put on protective equipment: wear-resistant clothing, safety shoes, leather gloves, hearing protection, CE-approved helmet.
- 2) Do not blast with damaged or worn equipment.
- 3) Check fittings and hose for wear before operating machine.
- 4) Use only Clemco original parts.

#### 4.1.2 Air and blast media consumption

There must be a sufficient supply of compressed air and blast media (see table 1).

<b>Nozzle size [mm]</b>	<b>Air consumption [m<sup>3</sup>/min.] at pressure [bar]</b>			<b>Blast media consumption [l/h] at pressure [bar]</b>		
	<b><u>6</u></b>	<b><u>9</u></b>	<b><u>12</u></b>	<b><u>6</u></b>	<b><u>9</u></b>	<b><u>12</u></b>
7.1	2	3	3.75	120	180	230

**Table 1:** Blast media and air consumption

### 4.2 Set-up

(1) Mount centering rings.	<ul style="list-style-type: none"> <li>– Select the correct diameter of centering ring.</li> <li>– Push both centering rings onto the housing and tighten using the hexagon socket screw above the grooves.</li> </ul>
(2) Attach lance.	Use a 3/8" (9.5 mm) pipe lance with the same length as the pipe to be blasted.
(3) Connect reducer and blast hose.	Connect blast hose to the reducer with nozzle holder.

### 4.3 Startup and operation

(1) Push the pipe cleaning tool through the pipe to be cleaned all the way to the end.	<b>Attention! The tip with the cone must not hit any part of the pipe or it will be damaged!</b>
(2) Activate the blast air.	Hold the lance firmly during this.
(3) Blast.	<ul style="list-style-type: none"><li>– Slowly pull the pipe cleaning tool back towards the operator (the used blast material will be blown forwards out of the pipe).</li><li>– The speed depends on the desired degree of cleaning.</li></ul>
(4) Disable the blast air.	Remove the pipe cleaning tool from the pipe.
(5) Check the tubes and cone for damage and rotate the cone if necessary (to ensure even wear across the circumference).	After 2 - 3 blasting operations. <b>Blasting with damaged tubes will destroy the pipe cleaning tool extremely quickly!</b>

## 5 Maintenance

Check the wear parts regularly for wear/damage and replace if necessary.

Never drop the pipe cleaning tool or wear parts (tubes, cone) as they are very brittle and will break easily.

### 5.1 Replacing the cone, tubes, threaded rod

The cone must be replaced when the cylindrical part of the cone (original length: 5 mm) has worn down to 0.5 mm. The tubes and the threaded rod should be replaced at the same time.

The steps below describe the dismantling/mounting process (see also Figure 1).

(1) Cleaning the HOLLO-BLAST JUNIOR pipe cleaning tool.	<ul style="list-style-type: none"><li>– Unscrew the blast hose with nozzle holder/lance.</li><li>– Remove the blast media from cracks and threads (blow off with compressed air).</li></ul>
(2) Dismantling the cone, tubes and threaded rod.	<ul style="list-style-type: none"><li>– Open the nut on the head.</li><li>– Carefully remove the cone and tubes from the threaded rod.</li><li>– Pull the threaded rod out of the holder from the lance coupling side.</li></ul>
(3) Mounting the cone, tubes and threaded rod.	Follow the steps in reverse order. <ul style="list-style-type: none"><li>– Threaded rod.</li></ul>

	<ul style="list-style-type: none"> <li>– 2 tubes.</li> <li>– Cone.</li> <li>– Screw on the nut and tighten <b>by hand</b>.</li> </ul> <p><b>During the mounting process, make sure that there is no blast media or debris between the tubes and cone.</b></p>
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## 5.2 Replacing the nozzle and seals

The nozzle of the pipe cleaning tool must be replaced when the TC nozzle (d = 7.1 mm) has been worn to a diameter of **8.5 mm**.

When replacing the nozzle, the seals should be replaced at the same time.

The steps below describe the dismantling/mounting process.

<i>(1) Cleaning the HOLLO-BLAST JUNIOR pipe cleaning tool.</i>	<ul style="list-style-type: none"> <li>– Unscrew the blast hose with nozzle holder/lance.</li> <li>– Remove the blast media from cracks and threads (blow off with compressed air).</li> </ul>
<i>(2) Dismantling the nozzle and holder for threaded rod.</i>	<ul style="list-style-type: none"> <li>– Open the nut and remove the cone, tubes and threaded rod.</li> <li>– Unscrew 3/8" (9.5 mm) coupling and lock nut.</li> <li>– Unscrew holder from the housing, and remove nozzle with seal from the housing.</li> </ul>
<i>(3) Mounting the nozzle and holder.</i>	<ul style="list-style-type: none"> <li>– Nozzle (small opening towards tip).</li> <li>– Insert seal.</li> <li>– Screw holder into the housing (recess towards the tip).</li> <li>– Mount threaded rod, tubes, cone and lock nut, and fasten using nut (<b>tighten by hand</b>).</li> </ul>

## 6 Spare parts

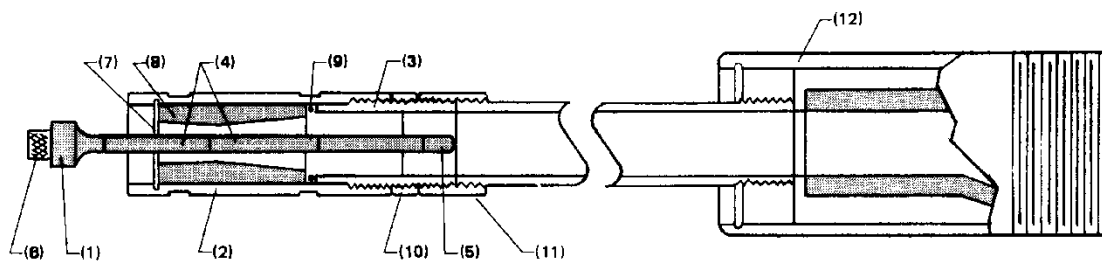


Figure 2: Spare parts

Item	Stock no.	Model	Description
(-)	01098I	HBJR-R	HOLLO-BLAST JUNIOR with TC reducer
(1)	01100I	HB-010 X	Cone
(2)	01101I	HB-011	Housing
(3)	01102I	HB-012 X	Holder
(4)	01105I	HB-013 X	Tube (x2)
(5)	01162I	HB-014 X	Threaded rod
(6)	01108I	HB-015 X	Nut
(7)	01109I	HB-016	Ring
(8)	01113I	HB-N-JR X	TC nozzle 7.1 mm
(9)	01110I	HB-017 X	Seal
(10)	01111I	HB-018	Nut
(11)	01112I	HB-019	Coupling 3/8"
(12)	01115I	HB-009	Reducer
(13)	90001D		Spare part set = X
(-)	07720D	HEP-1	For hose 25 x 7
(-)	07721D	HEP-2	For hose 32 x 8
(-)	99173D	HEP 3/4"	For hose 19 x 7 (*1)

(\*1) Not recommended as pressure loss is too high.