
Internal Pipe Blast Tool UPBT-2



1. Introduction

The UPBT-2 is a high-performance mobile device for abrasive blast cleaning of the inner surfaces of pipes, and is powered by a standard abrasive blast machine.

It is suited for operating in straight pipes up to 12m in length and with diameters from 300 to 900 mm.

2. Basic Parameters

Application Pipe: the short bracket is suitable for pipe I.D. 300~400mm; the long bracket is suitable for pipe I.D. 400~900mm

Driving Energy: compressed air

Operating Pressure: 0.6~0.8MPa

Suitable Hose Size: 50mm O.D.

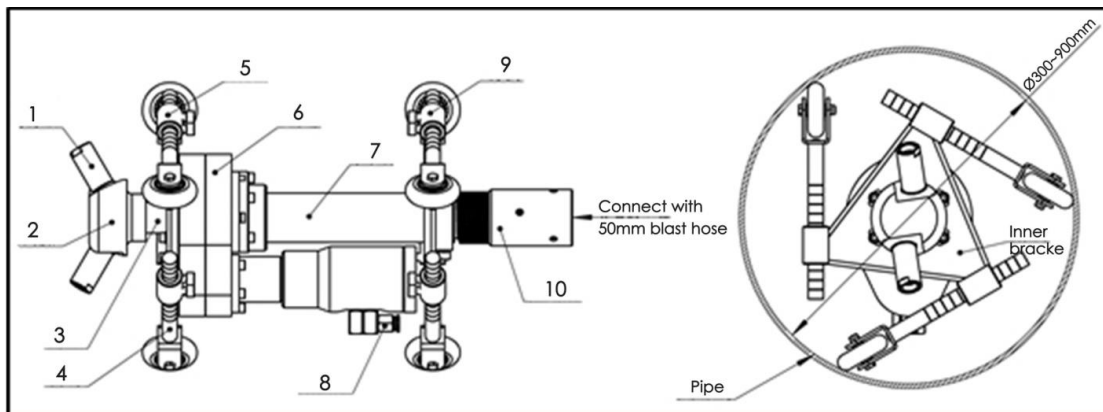
Applicable Abrasive: steel shot, copper ore, silica sand, brown corundum, etc; grain size should be more than 20 mesh (less than 1mm)

Nozzle: the default Dia. is 8mm x 2, please specify if you need 10mm

Connector: with 1/4" internal thread, equipped with PU pipe connectors (applicable to 12mm O.D.), and pagoda-shaped connectors with 13mm inner diameter

3. Parts Diagram

See Fig.1



1. Nozzle
2. Rotating head
3. Driven shaft
4. Caster bracket
5. Inner bracket
6. Gearbox
7. Blasting pipe
8. Air jet connector
9. Outer bracket
10. Hose coupling

4. Installation

- 1) Use the tools provided with the tool to fix the inner bracket and outer bracket to the main body of the UPBT-2
- 2) Install the nozzle on the rotating head (see Fig. 2)

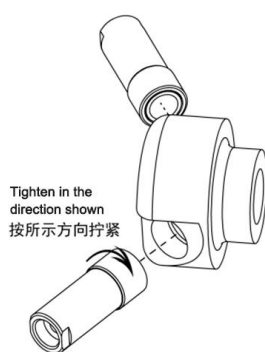


Fig. 2

- 3) Install the rotating head on the driven shaft (see Fig. 3)

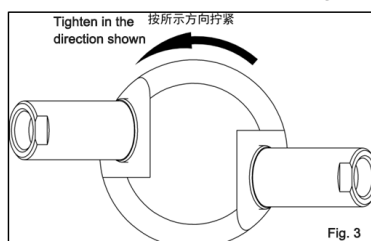


Fig. 3

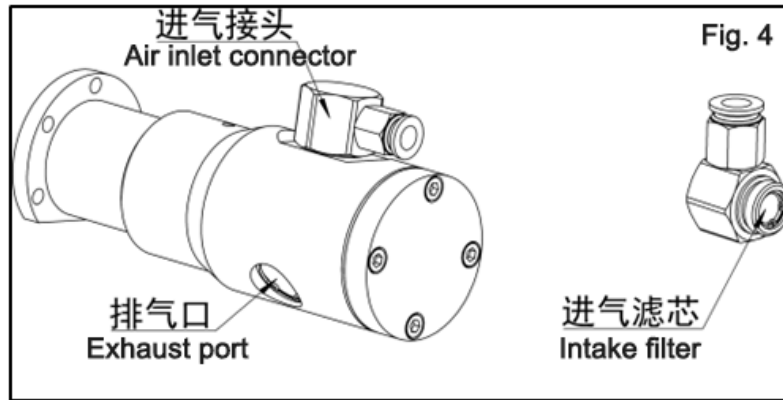
- 4) Choose a suitable caster bracket according to the pipe size you need to blast and adjust the length (UPBT-2 is equipped with two sets of different lengths of caster brackets, use the short one when the pipe I.D. less than 400mm, and use the long one when the pipe I.D. more than 400mm)
- 5) Install the air jet connection (UPBT-2 is equipped with two types of air jet connectors, choose the suitable one according to your needs)
- 6) Take the hose coupling down from the UPBT-2 tool, then connect the blasting hose (50mm O.D.) from the blasting machine to the hose coupling, screw and lock it well to prevent slipping out; then put the hose coupling on the UPBT-2 tool. The hose coupling should not be screwed too tightly, so as not to affect the rotation speed of the nozzle.

5. Operation Guide

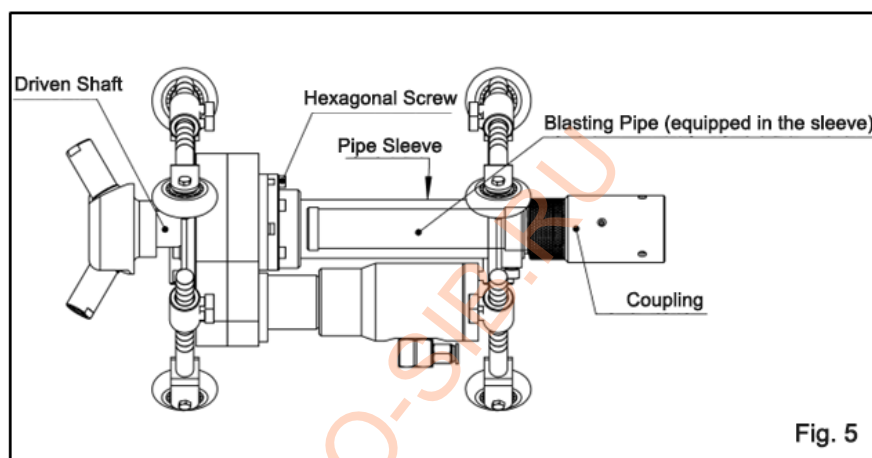
- 1) Precautions before starting up: check whether the connections of various parts of the machine body and the bolts are tight; check whether the connection between the rotating head and the driven shaft is tight to prevent air leakage; check whether the connection between the nozzle and the rotating head is tight.
- 2) Switching sequence: when starting up, first turn on the power motor, and then turn on the air compressor of the sandblasting pot when the power motor is steady. When shutting down, first turn off the air compressor of the sandblasting pot, and then turn off the power motor.
- 3) The air working pressure of the rotary motor is 0.6MPa-0.8MPa. If the speed is not ideal, the air pressure can be adjusted, but the maximum pressure should not exceed 0.8MPa.
- 4) In order to prolong the service life of the tool, boron carbide nozzles are used.
- 5) The air pressure of this machine is relatively high. Calculated from the outlet of the nozzle, the one-way effective spraying distance is 900mm, and the impact force is large. Therefore, the air compressor must be turned on only after the machine is installed in the pipe to be cleaned, so as not to hurt people.
- 6) The power air does not contain water, and should contain a small amount of atomized 10#-20# lubricating oil or special engine oil for pneumatic tools (it is strictly forbidden to use engine oil with too high viscosity).
- 7) When using, first pull the UPBT-2 to the outlet of the pipe. Push the device by the abrasive blast hose through the pipe. Carry out the procedure at a speed that ensures the necessary level of cleaning.
- 8) When the device exits the pipe, check that there is no discharge of compressed air or dust through the control ports of the bushing.

6. Maintenance

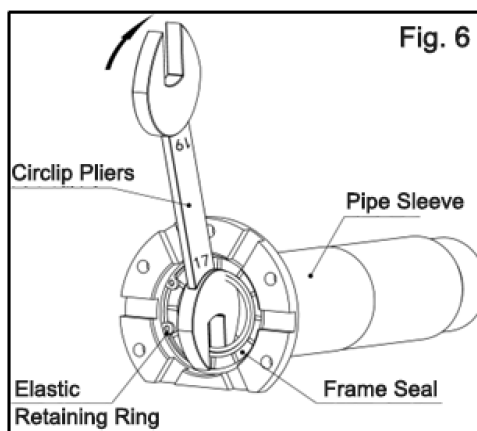
- 1) If you use an air jet that is not matched with the device, pay attention to the depth of the thread, so as not to screw too deep and affect the air intake flow. Regularly check whether the **exhaust port** of the motor (see Fig. 4) and the **intake filter** in the air jet connector are blocked by dust and impurities, so as not to affect the intake and exhaust flow, which causes speed dropping.



- 2) Regularly check the wear of the parts and replace the parts that are close to failure in time (see Fig. 5)



- ★ Blasting pipe replacement: Disassemble the hose coupling and pull out the blasting pipe backward to replace it.
- ★ Replacing the driven shaft: take the rotating head off, loosen the locking and disassemble the blasting pipe sleeve, then pull out the driven shaft to replace it.
- ★ Replace the frame seal ring: disassemble the blasting pipe sleeve, remove the elastic retaining ring with a circlip pliers first, then remove the frame seal ring with an open wrench (see Fig. 6); replace it with a new one.



- 3) Prevent water or oil (grease) from entering the interior when not in use

7. Delivery set and specifications

No.	Name	Spec.	Qty	Remarks
1	Rotating Device	UPBT-2	1 set	
2	Boron Carbide Nozzle	8*20*60	2 pcs	quick-wear part
3	Rotating Head		1 pc	quick-wear part
4	Hexagonal Wrench	5mm	1 pc	
5	Hexagonal Wrench	6mm	1 pc	
6	Inner and Outer Brackets		2 pcs	
7	Caster Brackets	165mm	6 pcs	< 400mm O.D.
8	Caster Brackets	380mm	6 pcs	> 400mm O.D.
9	Hexagonal Screw	M8*15	14 pcs	
10	Hexagonal Screw	M6*10	6 pcs	
11	Spacer	6mm	6 pcs	
12	Air jet connector	G 1/4" x 12mm	1 pc	
13	Air jet connector	G 1/4" x 13mm	1 pc	