

# ROTARY TOOLS CURVED PIPE CLEANING

## 6" BADGER

The 6" Badger is a compact self-rotary nozzle with adjustable speed control capable of navigating 90 degree elbows in pipes as small as 6" (152 mm) in diameter.

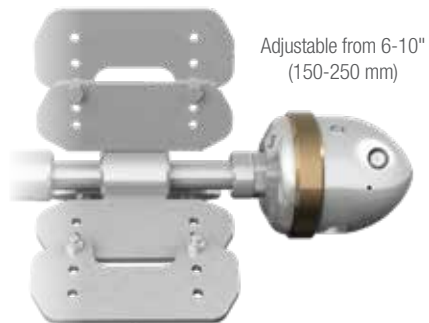
- ✓ Different jetting configurations allow for more or less pull and forward hitting power
- ✓ Navigates elbows down to 6 in. (152 mm)
- ✓ Speed controlled rotary tools provide complete internal cleaning coverage and optimum jet delivery
- ✓ Maximize cleaning by choosing slower speeds for hard to clean or plugged pipes and faster speeds for polishing easy to clean pipes with a single tool
- ✓ Optimize the tool for a variety of pumps pressures and flows with multiple jetting options
- ✓ Pair with the ABX-500 for hands-free pipe cleaning



| TOOL MODEL    | PRESSURE RANGE             | FLOW RANGE                | ROTATION SPEED             | INLET CONNECTION | WEIGHT            | MAX. OPERATING TEMPERATURE |
|---------------|----------------------------|---------------------------|----------------------------|------------------|-------------------|----------------------------|
| BA-MP9/BA-M24 | 12–22k psi<br>840–1500 bar | 14–43 gpm<br>53–163 l/min | 50–300 rpm<br>(Adjustable) | 9/16" MP, M24    | 8.0 lbs<br>3.6 kg | 250 °F<br>120 °C           |
| BA-P8         | 2–15k psi<br>140–1000 bar  | 15–55 gpm<br>57–208 l/min | 50–300 rpm<br>(Adjustable) | 1/2" NPT         | 8.0 lbs<br>3.6 kg | 250 °F<br>120 °C           |

## OPTIONAL CENTRALIZERS

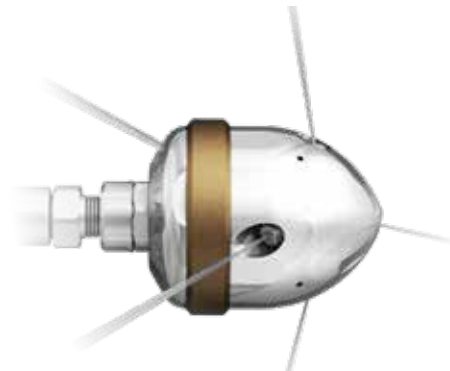
Helps protect the tool as it passes through the pipe and balances jet standoff distance for more consistent cleaning. In cases where pipe size is more than 1.5 times the diameter of the tool, a centralizer is an important safety device, preventing the tool from turning around and thrusting backwards out of the pipe.



BA 385 M9/P8

## NOZZLES AND PLUGS

The 6" Badger can be jetted in different configurations depending on the application. The image below shows the standard nozzle/plug configuration for the 6" Badger tool.

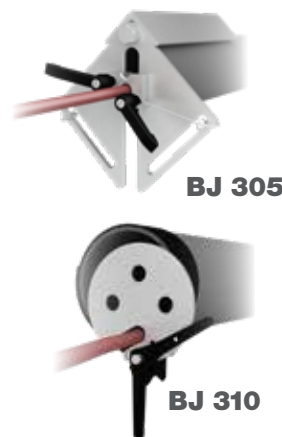


### 6" BADGER JETS

5 Ports: 1 @ 15°, 2 @ 100°, 2 @ 135°

## BACKOUT PREVENTERS

Increase safety by keeping the tool from backing out of the pipe. Several options are available including fixtures for small diameter pipes, pipes with various flange bolt circle diameters and adapters for pipes with no-flange entry.



BJ 305

BJ 310

## MAINTENANCE RESOURCES

| TOOL   | SEAL KIT      | SERVICE KIT   | OVERHAUL KIT | DISK KIT | TOOL KIT      | LUBRICANT | MANUAL |
|--------|---------------|---------------|--------------|----------|---------------|-----------|--------|
| BA-P8  | BA 602-P8/MP9 | BA 600-P8/MP9 | BA 610-P8/M9 | BA 606   | BA 612-P8/MP9 | BJ 048-F  | PL 503 |
| BA-M24 | BA 602-P8/MP9 | BA 600-P8/MP9 | BA 610-P8/M9 | BA 606   | BA 612-P8/MP9 | BJ 048-F  | PL 503 |
| BA-MP9 | BA 602-P8/MP9 | BA 600-P8/MP9 | BA 610-P8/M9 | BA 606   | BA 612-P8/MP9 | BJ 048-F  | PL 503 |

## BEETLE™ BT25, BT18, BT12, BT9.5

The small diameter and short length of the Beetle models make them ideal for cleaning process piping, drain lines, u-tube bundles and other small ID tubes with bends and elbows that may have been inaccessible in the past.

- ✓ Navigates tight curves in small diameter pipes
- ✓ Low cost, low maintenance design
- ✓ Easy to pair with automated flex lance machines



The BT25 navigates bends down to a 2 in. (51 mm) radius.

## NEW BEETLE BT9.5

Designed specifically for cleaning curved tubes/pipes from 0.37 in. (9.5 mm) I.D.

|                   | BT25  | BT18                                     | BT12                         | NEW<br>BT9.5   |
|-------------------|---|--|------------------------------|--|
| TUBE ID RANGE     | 1.2–3.0 in.<br>(30–76 mm)                                       | 0.9–1.3 in.<br>(22–33 mm)                | 0.6–1.0 in.<br>(15–25 mm)    | 0.47–0.63 in.<br>(2–16 mm)                           |
| PRESSURE RANGE    | 8–22k psi<br>(550–1500 bar)                                     | 8–22k psi<br>(550–1500 bar)              | 8–22k psi<br>(550–1500 bar)  | 8–15k psi 550 (1035 bar)<br>8–22k psi 550 (1500 bar) |
| FLOW RANGE        | 8–20 gpm<br>(30–76 l/min)                                       | 8.5–11 gpm<br>(32–42 l/min)              | 6.5–8.5 gpm<br>(25–32 l/min) | 5–6 GPM<br>(19–23 l/min)                             |
| INLET CONNECTIONS | 1/8" NPT, 1/4" NPT, 1/4" BSPP,<br>3/8"-28 LH/RH, 9/16"-18 LH/RH | P1, P2, BSPP2, MP6L,<br>MP6R, MP4L, MP4R | P1, M7, MP4L, MP4R           | P1, M7   |
| DIAMETER          | 1.0 in. (26 mm)   | 0.7 in. (18 mm)                          | 0.5 in. (12 mm)              | 0.37 in. (9.5 mm)                                    |
| LENGTH            | 1.9 in. (48 mm)   | 1.5 in. (39 mm)                          | 1.3 in. (39 mm)              | 1.4 in. (35 mm)                                      |