

Clamping of pipe with

BIG BORE 2G chucks

BB-N-EXL2G

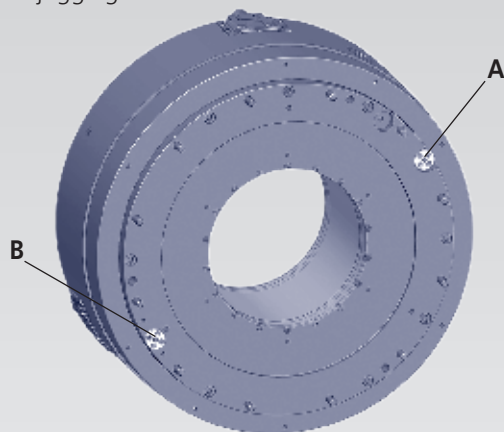
BB-AZ2G

BB-FZA2G

BB-EXL-SC2G

BIG BORE BB-N-EXL2G

- Self centering
- Extra long jaw stroke
- Jaw jogging

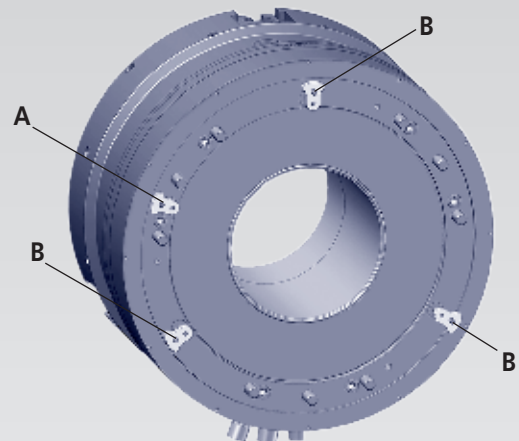


Safety features:

- A:** Pressure control
- B:** Stroke control

BIG BORE BB-AZ2G

- Self centering or compensating
- Extra long jaw stroke

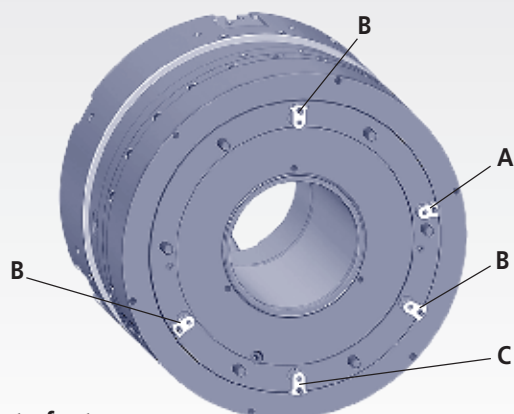


Safety features:

- A:** Pressure control
- B:** Individual stroke control for each jaw

BIG BORE BB-FZA2G

- 6 jaw sequence chuck
(3 centering jaws - 3 compensating jaws)
- Extra long jaw stroke (radial and axial)

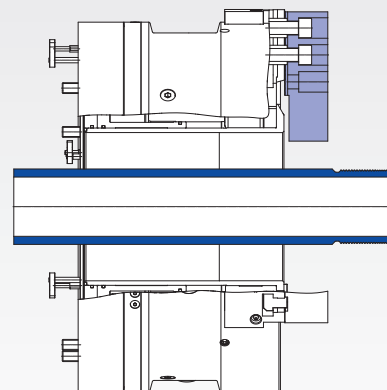


Safety features:

- A:** Pressure control for compensating jaws
- B:** Individual stroke control for each jaw
- C:** Stroke control for retracted centering jaws

All 2G chucks

- Extra long jaw stroke
- Extra large clearance between pipe and jaws



Extra long jaw stroke for:

- Safe loading of pipe, no hitting of the jaws
- Safe unloading of the threaded pipe with **no** damage of the finished thread

Clamping glossary

Extra long jaw stroke: The extra long jaw stroke is a long radial movement of the master jaws of the Big Bore 2G chuck. It can be either a fully usable clamping jaw stroke or a combination of rapid stroke and clamping stroke. An **extra long jaw stroke** allows a safe loading and unloading of the pipe.

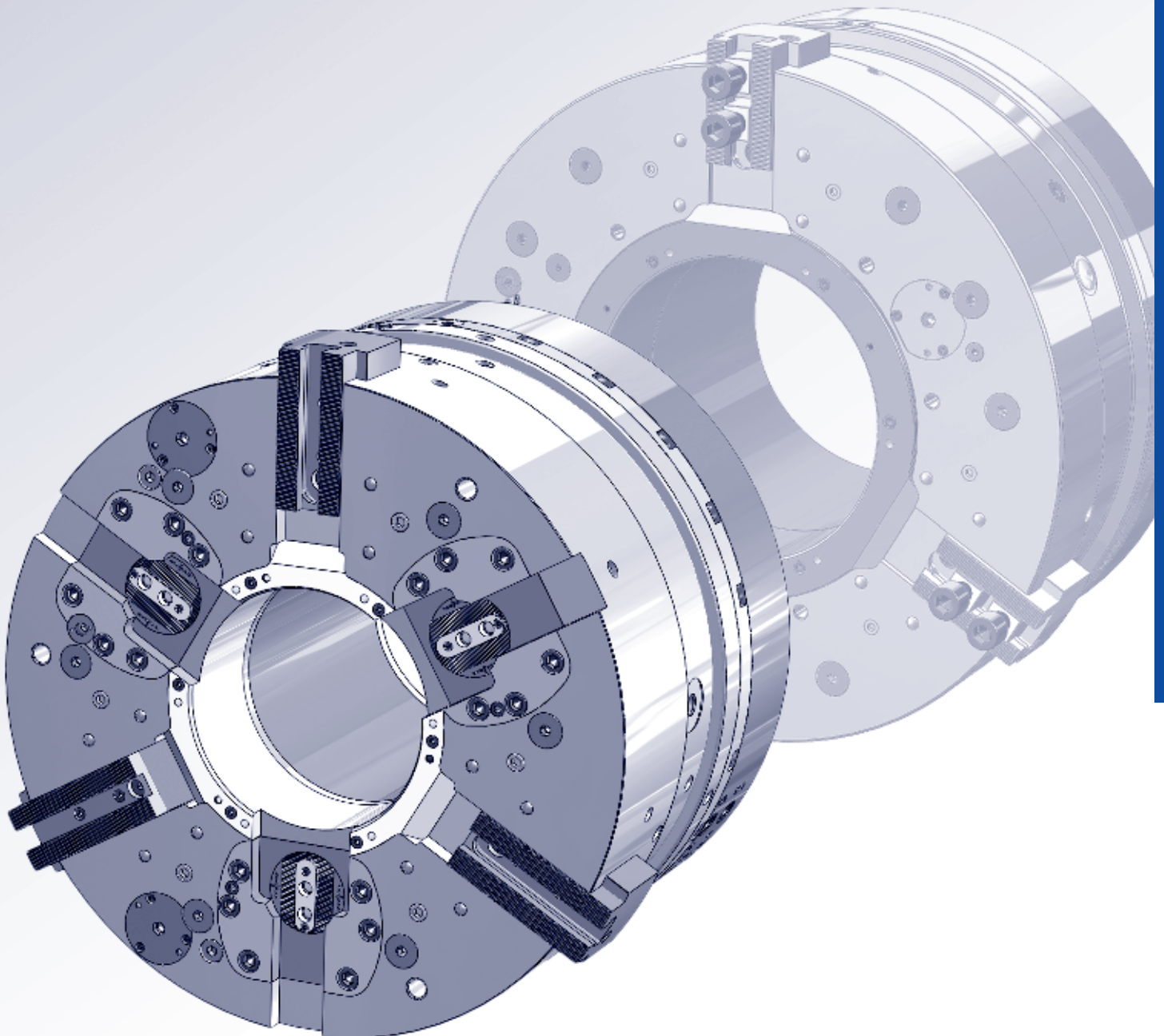
Individual stroke control for each jaw: In compensating clamping mode, all 3 jaws of the Big Bore 2G chucks make a different radial movement to compensate for the misalignment of the pipe to be clamped. A single central jaw stroke control cannot detect if the jaw stroke on one of the master jaws bottoms out and yet cannot hold the pipe in the requested position anymore.

The **individual stroke control for each jaw** ensures that all 3 jaws are within the correct clamping stroke and will clamp the pipe safe and accurate. The signals are picked up by proximity switches, and are monitored by the air control unit.

Stroke control for the retracted jaws: On the 6 jaw sequence chuck Big Bore FZA2G, the centering jaws are used only in static mode to align the pipes machining area to the center line of the machine. The pipe position is maintained when the compensating jaws clamp. The centering jaws are then retracted to allow the threading at the centered area. In order to make sure that the centering jaws are retracted and do not interfere with the threading tool during machining, the retracted position of the centering jaws are monitored by a **stroke control** system via a proximity switch.

Pressure control: During the machining of a pipe, the air pressure to create the gripping force is maintained by a built in safety valve system.

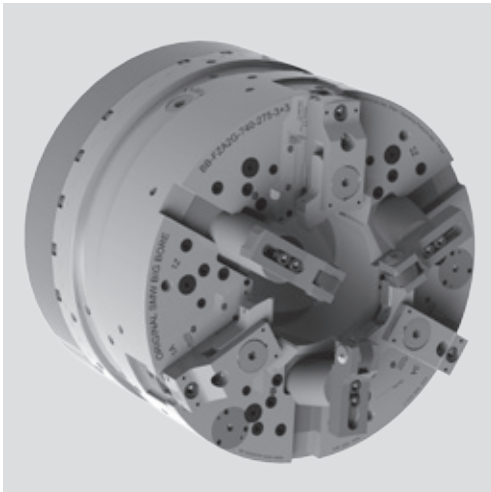
In case there is a drop in clamping pressure, a built in **pressure control** will detect the low pressure and pick up an alarm signal via a proximity switch. All Big Bore 2G chucks have such a pressure control as a standard feature.



BIG BORE® BB-FZA2G

Front-end pneumatic 6-jaw sequence chucks EXTRA LARGE THROUGH HOLE Ø 275 - 390 mm

- chuck size 740 - 920
- 3 integrated centering jaws and 3 compensating jaws



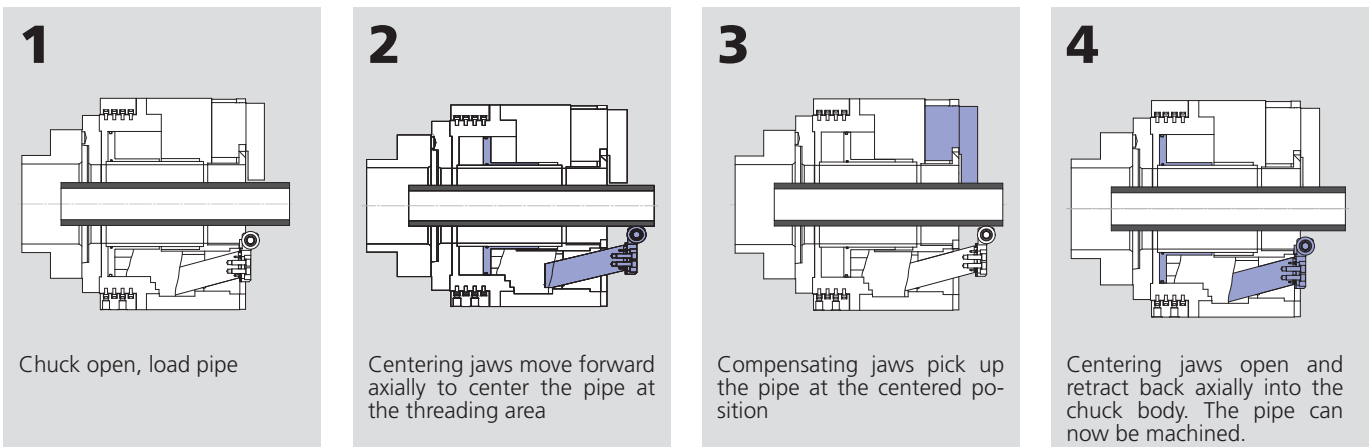
Application/customer benefits

- Extra long axial and radial stroke for centering jaws
- Adjustability of the axial centering position for pipe threading
- Extra long rapid and clamping stroke (1 1/2" total) for compensating jaws
- Stroke control for centering jaws
- Stroke control for each compensating jaw
- Pressure control

Technical features

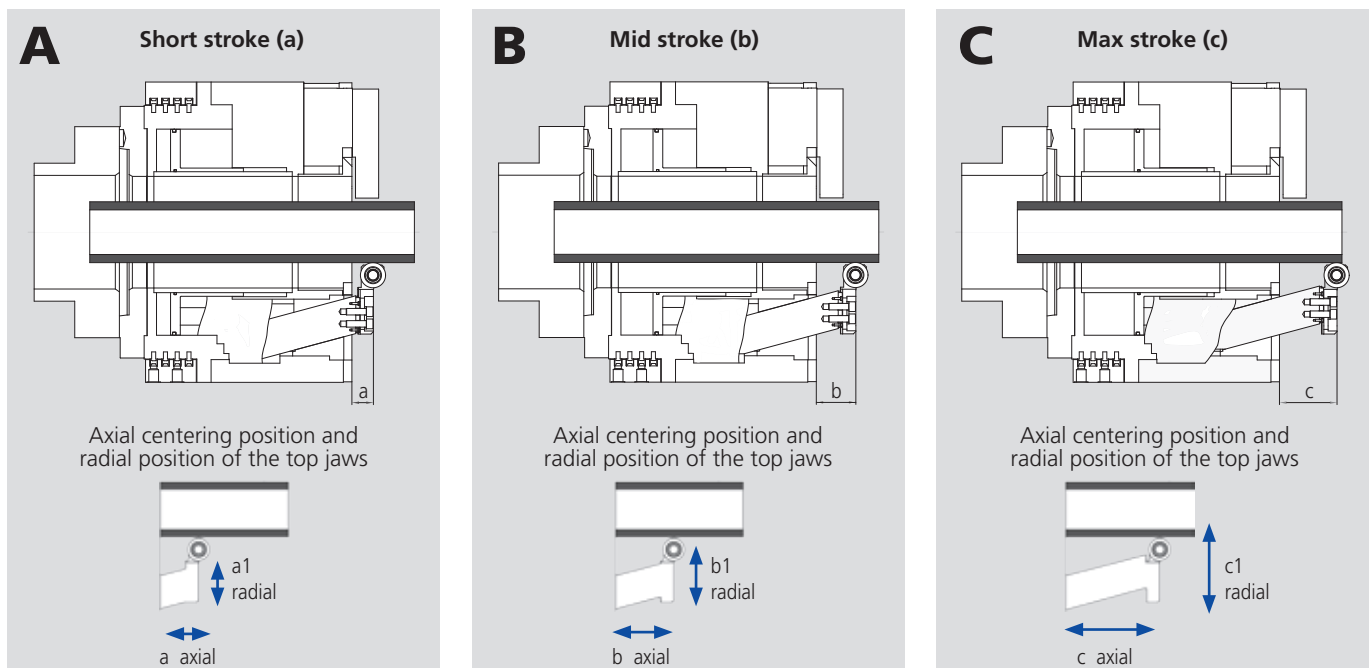
- 3+3 jaw air chuck with 3 integrated centering jaws and 3 compensating jaws
- Integrated centering jaws move axially forward to center the pipe exactly at the area to be threaded
- For external clamping only
- Fully automatic sequence is programmable
- Extra long jaw stroke
- It is possible to adjust the axial centering position through the radial position of the centering jaws

Machining of bent pipe with chuck with integrated centering jaws:



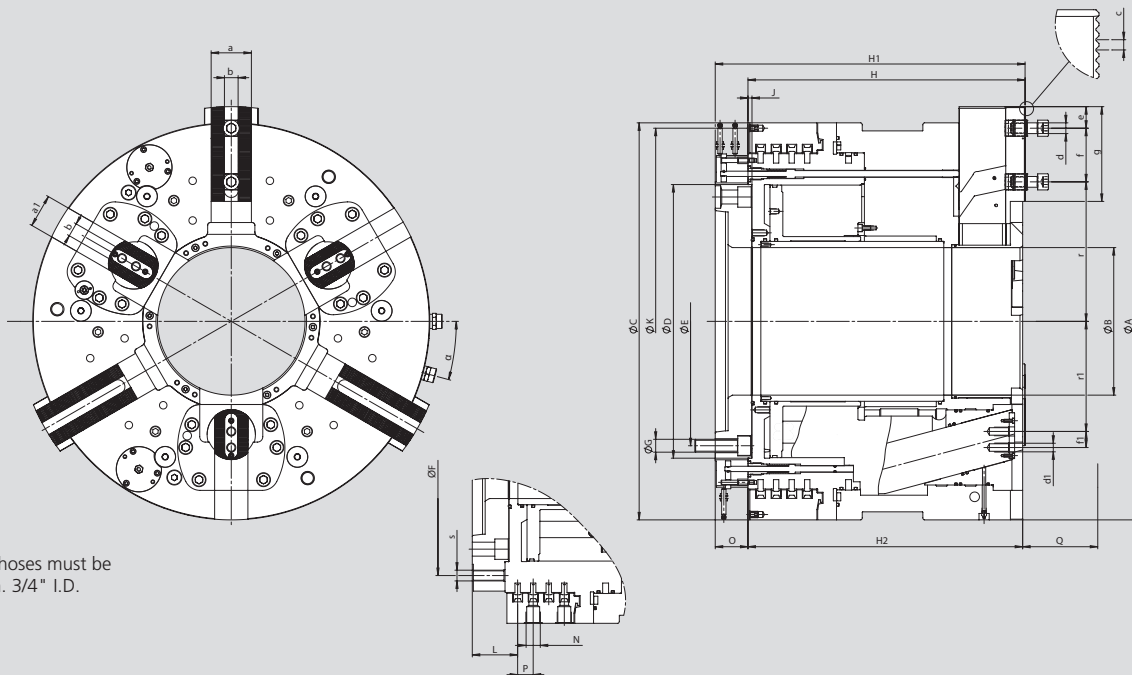
Adjustability of the axial centering position:

By changing the radial position of the top jaws, the axial centering position can be changed. The axial centering position is dependent from the radial adjustment of the top jaws.



BIG BORE® BB-FZA2G

Main dimensions and technical data



All hoses must be
min. 3/4" I.D.

Subject to technical changes
For more detailed information please ask for customer drawing

| SMW-AUTOBLOK Type | | | BB-FZA2G-740-275-A20 | BB-FZA2G-800-330-A20 | BB-FZA2G-920-390-A20 |
|---|----|------------|----------------------|----------------------|----------------------|
| Id. No. | | | 054159 | 054300 | 054228 |
| Chuck diameter | A | mm | 740 | 800 | 920 |
| Through hole | B | mm | 275 | 330 | 390 |
| | C | mm | 740 | 800 | 920 |
| | D | mm | 510 | 510 | 550 |
| | E | mm | 463.6 | 463.6 | 463,5 |
| | F | mm | 562 | 615 | 724 |
| | G | mm | M24 | M24 | M24 |
| | H | mm | 516.5 | 516.5 | 546.5 |
| Chuck height | H1 | mm | 577.5 | 577.5 | 607.5 |
| | H2 | mm | 512 | 512 | 542 |
| | J | mm | 7.5 | 7.5 | 7.5 |
| | K | mm | 720/6xM8 | 780/6xM8 | 890/6xM8 |
| | L | mm | 84.5 | 84.5 | 86.5 |
| Connection for air hoses | N | inch | G 3/4" | G3/4" | G 3/4" |
| | O | mm | 61 | 61 | 61 |
| | P | mm | 3x29 | 3x29 | 3x31 |
| Centering jaws axial stroke | Q | mm | 140 | 140 | 160 |
| | a | mm | 75 | 75 | 75 |
| | a1 | mm | 62 | 62 | 62 |
| | b | mm | 25.5 H7 | 25.5 H7 | 25.5 H7 |
| | c | inch | 3/32" x 90° | 3/32" x 90° | 3/32" x 90° |
| Jaw mounting bolts | d | mm | M20 | M20 | M20 |
| Jaw mounting bolts | d1 | mm | M16 | M16 | M16 |
| | e | min. | 30 | 30 | 30 |
| | f | max. | 100 | 100 | 135 |
| | f1 | mm | 30 | 30 | 30 |
| | g | mm | 176.6 | 176.6 | 190 |
| Serration to face of chuck | h | mm | 19 | 19 | 19 |
| | r | min. | 260 | 287.5 | 321 |
| | r1 | min. | 205.2 | 232.7 | 270.3 |
| | s | mm | M20 | M20 | M24 |
| | α° | deg. | 15 | 15 | 15 |
| Speed max. | | r.p.m. | 900 | 750 | 600 |
| Gripping force compensating jaws at 6 bar | | kN (lbf) | 90 (20232) | 90 (20232) | 150 (33721) |
| Gripping force centering jaws at 6 bar | | kN (lbf) | 100 (22480) | 114 (25628) | 102 (22930) |
| Jaw stroke compensating jaws total | | mm (inch) | 38.1 (1 1/2") | 38.1 (1 1/2") | 38.1 (1 1/2") |
| rapid stroke | | mm (inch) | 29.6 (1.16") | 29.6 (1.16") | 29.6 (1.16") |
| clamping stroke | | mm (inch) | 8.5 (0.34") | 8.5 (0.34") | 8.5 (0.34") |
| Jaw stroke centering jaws | | mm (inch) | 37.5 (1.47") | 37.5 (1.47") | 42.7 (1.68") |
| Air consumption centering at 6 bar | | liter max. | 92 | 92 | 142 |
| Air consumption compensating at 6 bar | | liter max. | 28 | 28 | 50 |
| Weight (without top jaws) | | kg (lbs) | 1140 (2400) | 1350 (3000) | 1850 (4.110) |
| Operating pressure min./max. | | bar (psi) | 2/8 (29/116) | 2/8 (29/116) | 2/8 (29/116) |
| Moment of inertia | | kg·m² | 88 | 121 | 230 |