

# Quick Service Guide: GOW-3/4-150 Bailian Booster Compressor

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*This document was developed by [Build Health International](https://www.bhioxygen.org) to support global medical oxygen infrastructure planning, site preparation, operation, maintenance, and sustainability. Additional technical resources are available at [www.bhioxygen.org](https://www.bhioxygen.org).*

This quick service guide for the Bailian GOW-3/4-150 booster compressor is designed to support technicians during preventative maintenance on the booster compressor. It is not a step-by-step instruction manual for completing maintenance, but rather a reference tool to assist with the more challenging and detail-oriented aspects of the process. On the following pages, you will find reference points such as:

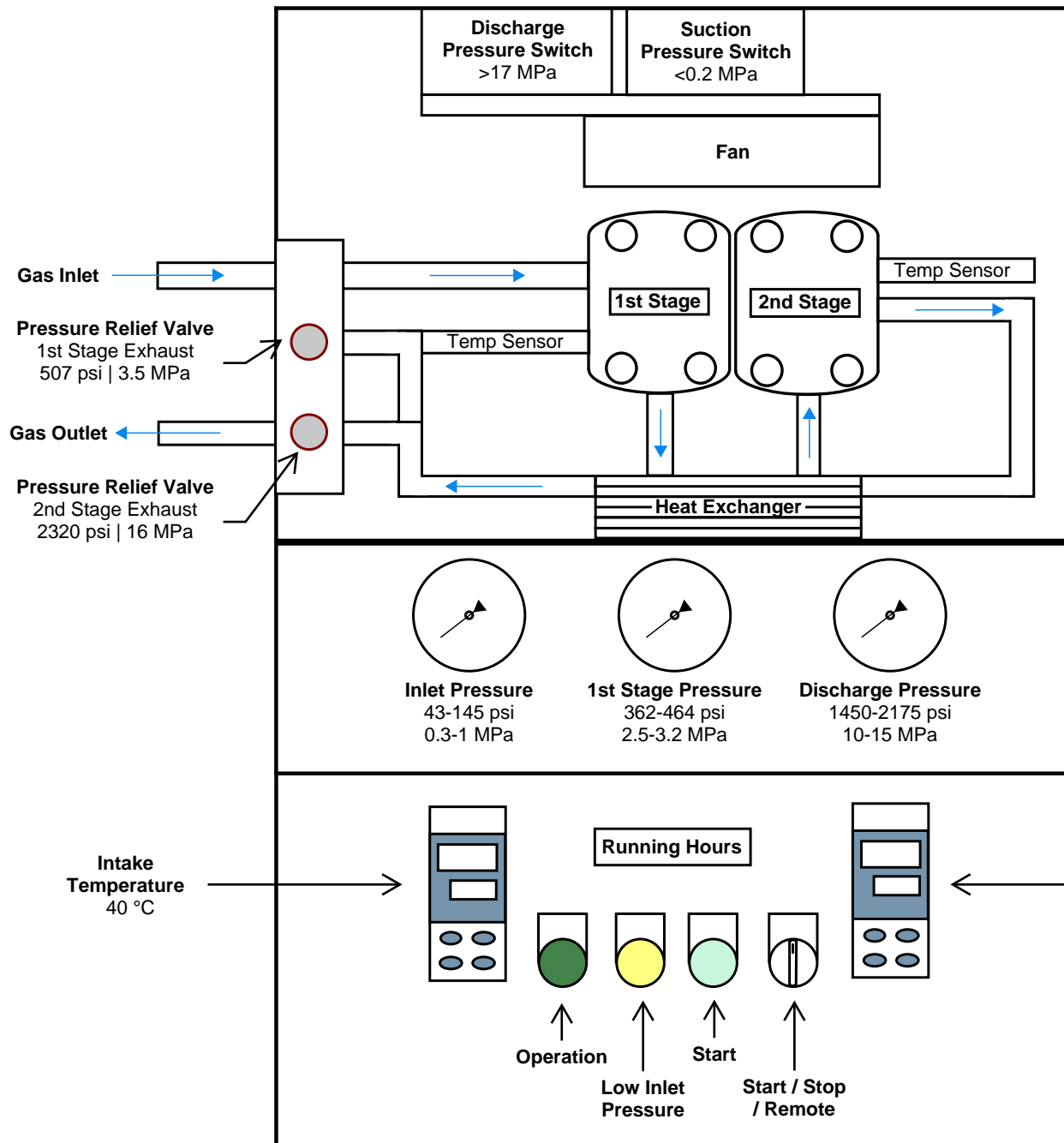
- Proper valve assembly
- Correct stage placement
- Identification and positioning of rings and components

The intent is to provide clear, visual reminders that help reduce errors and ensure efficient, accurate maintenance.

The following pages are intended to be printed on A4 size paper and laminated for durability. Make sure to print at 100% scale without enlarging or modifying any of the image images to ensure the sizing guide sheets remain accurate. This is critical for verifying O-ring sizes, which will not display correctly if the images are resized. Store this guide in close proximity to the booster compressor for easy access during maintenance. By keeping this guide available at the point of use, technicians can quickly confirm critical details without searching through lengthy manuals.

This guide is an independent reference document. It is not endorsed, published, or developed by the booster compressor manufacturer. Always consult the official service manual for complete instructions, safety guidelines, and detailed maintenance procedures.

# GOW3 BAILIAN QUICK SERVICE REFERENCE GUIDE



## Notes:

- Drawing not to scale.
- Use an 17mm wrench for all blue outside bolts on the valve covers and cylinder housings.
- Use an 19mm wrench for the silver tubing connections
- Determine the stop value for the pressure switch controllers:  
Stop pressure = starting pressure + pressure difference

## Preventative Maintenance Log:

### Daily Inspection

- Confirm pressure switches are functioning
- Check pressure gauge readings are within expected values
- Listen for unusual noises, vibrations, or heat

### Monthly (200 hour) Inspection

- Confirm safety relief valves are functioning
- Inspect belt for tension and signs of wear
- Inspect fasteners
- Clean machine from dust and debris

### Annual (2000 hour) Inspection

- Replace piston rings and guide rings in cylinder assemblies
- Inspect and replace air valve if needed
- Inspect and replace bearings if needed

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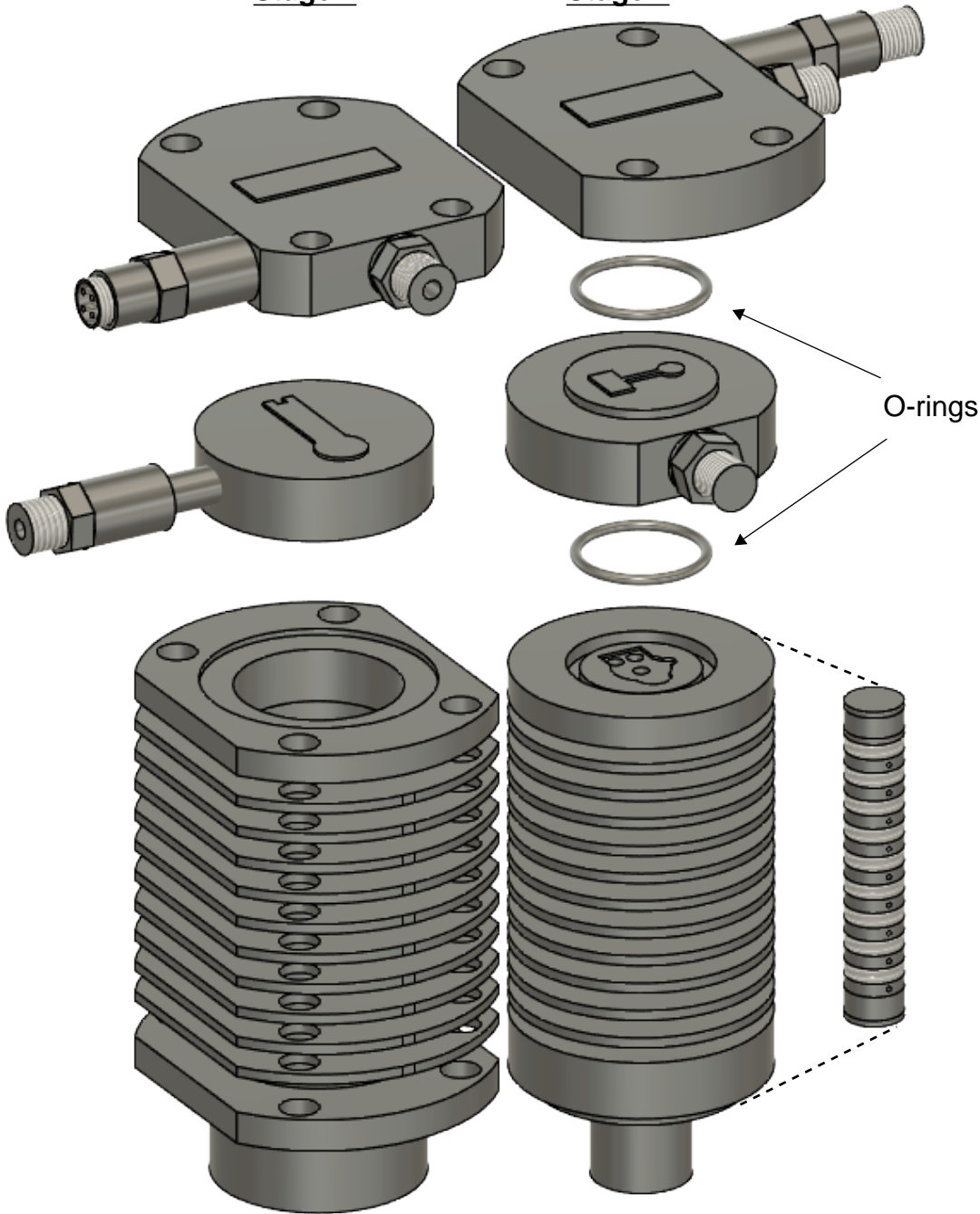
Cylinder Heads

Cylinder Spacers

Cylinders and Piston

Stage 1

Stage 2

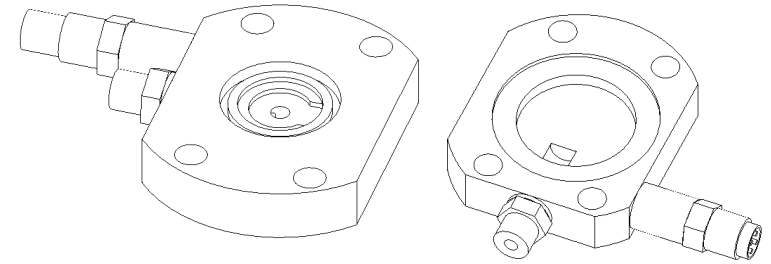


## The Cylinder Heads

Make sure to orient properly, note the geometry on the bottom of each stage's cylinder head and how it matches with the geometry on the top of each stage's cylinder spacer.

Stage 1

Stage 2

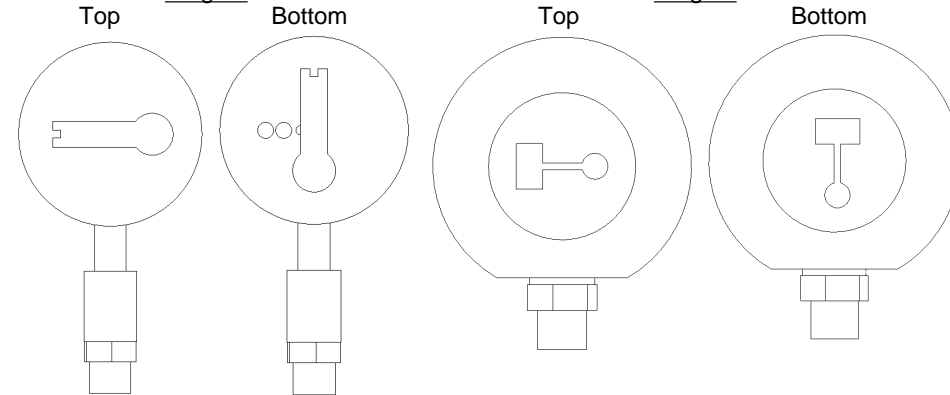


## The Stage Spacers

Make sure to orient properly, the side with the perpendicular reed valve should be placed face up and the side with the parallel reed valve should be face down.

Stage 1

Stage 2



## The Piston

A plastic plunger tool is required to remove the floating piston from the 2nd stage cylinder. It must be <5mm in diameter and >100mm long.

Notice the orientation of the piston. Observe that the side with the hole closest to the end is oriented towards the bottom of the cylinder.