

PSA Plant Maintenance Tool Kit Inventory: Booster Compressors

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1. Introduction

Please note: These tool kits have not been developed or endorsed by any of the mentioned suppliers and are based entirely on Build Health International’s experience servicing and assessing this equipment. Additional tools may be required to perform specific service interventions, and all service must be performed in adherence with the manufacturers requirements.

Oxygen Booster Compressor Tool Kit (Rix Industries and ULTRACECO): This tool kit is specific to Rix Industries brand compressors (models 2PS and 2V3B) and ULTRACECO (HP models). These tools are required for the plant operator to effectively service and/or troubleshoot the Rix / ULTRACECO compressor.

Oxygen Booster Compressor Tool Kit (NOVAIR and Noxerion): This tool kit is specific to NOVAIR brand HP series and Noxerion compressors. These tools are required for the plant operator to effectively service and/or troubleshoot the NOVAIR / Noxerion compressor.

Oxygen Booster Compressor Tool Kit (Bailian and ULTRACECO): This tool kit is specific to Bailian brand compressors (including GOW-3/4-150, GOW 15/4-150, and other similar models) and ULTRACECO (HPX models). These tools are required for the plant operator to effectively service and/or troubleshoot the Bailian / ULTRACECO compressor.

Oxygen Booster Compressor Tool Kit (Anshan Jiapeng): This tool kit is specific to Anshan Jiapeng brand compressors. These tools are required for the plant operator to effectively service and/or troubleshoot the Anshan Jiapeng compressor.

All tool kits should be used exclusively for the oxygen system and should be kept free of grease and dirt at all times.

Local Availability Legend

Color	Availability
	Limited anticipated issues sourcing these items from local vendors
	Some issues expected when sourcing these items from local vendors. Items may be available but do not meet safety or sizing requirements.
	Significant difficulty is expected when sourcing these items from local vendors.

2. Oxygen booster compressor tool kit: Rix Industries and ULTRACECO

[Applicable to models 2PS and 2V3B and HP models]

#	Item Description	Qty	Photo	Requirements / Alternatives	Tool Purpose
1	3/8 Inch Drive x 1/2 Inch Deep 6-Point Socket	1			Used to tighten or loosen PSA plant equipment fasteners for internal repairs and maintenance
2	Plastic Non Marring Pick with Blunt Tip	1		This tool is typically used for laptop and smartphone repair.	Used to push out the piston, reed valves, or other metal pieces without causing scratches.
3	3/8-Inch Drive Click Torque Wrench (5-80 ft.-lb.)	1			Used to tighten nuts and bolts to a specific intensity. This avoids over or under tightening, and keeps pressure equal.
4	Deep Socket, SAE, 3/8-Inch Drive, 9/16-Inch, 6-Point	1			Used to tighten or loosen PSA plant equipment fasteners for internal repairs and maintenance
5	1/2-inch Combination Wrench, 12 Point, SAE	2			Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
6	5/32" allen key T handle	1		T-handle, not a kit	Used for tightening and loosening hexagonal bolts
7	5/64 allen key T handle	1		T-handle, not a kit	Used for tightening and loosening hexagonal bolts

#	Item Description	Qty	Photo	Requirements / Alternatives	Tool Purpose
8	High Precision Stainless Steel Lab Tweezers	1			Used for small precision movements and grabbing while doing maintenance inside of the booster compressor.
9	Pick with 45 Degree Angle Tip and Straight Handle	1		45 degree angle	Used for small precision movements; specifically removing ryder and compression rings.
10	9/16" x 11/16" Open End Wrench	1			Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
11	Wipes	1		Should be lint free.	Used to create a clean oxygen safe working environment. Also to wipe down dirty equipment.
12	Painters tape	1			Used for keeping open ends of piping & hoses protected from debris entering.
13	Synthetic lubricant grease (2 fl oz)	1		Krytox or generic brand with equivalent specifications	Primarily lubricates o-rings; causes them to stay in place and seals from air passing.
14	Nitrile Gloves	1			Personal Protective Equipment (PPE). Protects technicians' hands and keeps Oxygen Cleaned parts & tools oil free.
15	Zippered Tool Bag with pockets	1		Approximately 18in.	Used to hold all tools and keep them organized and accounted for

#	Item Description	Qty	Photo	Requirements / Alternatives	Tool Purpose
16	Flat head screwdriver	1		For 2V3B	Used to insert or remove screws to access PSA Plant equipment for internal maintenance or repair
17	Phillips head screwdriver	1		No. 1	Used to insert or remove screws to access PSA Plant equipment for internal maintenance or repair
18	7/16" Combination Wrench	1			Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
Additional tools required for maintenance that should be provided with the booster compressor by the manufacturer.					
19	Piston adjustment tool	1		#88-A8037. Must be procured from manufacturer	For setting the piston height
20	Sleeve Tool, 3rd Stage, 2V3B	1		#X63-C1148-5. Must be procured from manufacturer	
21	Sleeve Tool, 2nd Stage, 2V3B	1		#X63-A10773. Must be procured from manufacturer	
22	Sleeve Tool, 2nd stage, 2PS	1		#X63-A5549. Must be procured from manufacturer	

3. Oxygen booster compressor tool kit: NOVAIR and Noxerior

[Applicable to all models in the HP series and Noxerior models]

#	Item Description	Qty	Photo	Requirements / Alternatives	Tool Purpose
1	Combination wrench, 10 mm	1		metric	Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
2	Combination wrench, 14 mm	1		metric	Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
3	Combination wrench, 17 mm	1		metric	Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
4	Combination wrench, 19 mm	1		metric	Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
5	SAE/Metric Folding Hex Key Set (3-Piece)	1		metric and SAE	Used to turn bolts or screws with hexagonal sockets to access PSA plant equipment for internal maintenance or repair. Also known as "Hex keys"
6	Plastic Non Marring Pick with Blunt Tip	1			Used to push out the piston, reed valves, or other metal pieces without causing scratches.
7	3/8-Inch Drive Click Torque Wrench (5-80 ft.-lb.)	1			Used to tighten nuts and bolts to a specific intensity. This avoids over or under tightening, and keeps pressure equal.

#	Item Description	Qty	Photo	Requirements / Alternatives	Tool Purpose
8	Thread locking paste	1		Weicon lock AN 302-60 or alternative with equivalent properties: nonflammable and temperature limit of 150C or higher	An adhesive, applied to the threads of fasteners such as screws and bolts to prevent loosening, leakage, and corrosion.
9	Sandpaper	1		3000 grit	To buffer clean the valves
10	Wipes	1		Lint free	Used to create a clean oxygen safe working environment. Also to wipe down dirty equipment.
11	Zippered Tool Bag with pockets	1		Approximately 14in.	Used to hold all tools and keep them organized and accounted for
12	Pick With 90 Degree Angle Tip And Straight Handle	1		90 deg angle	Used for small precision movements; specifically removing ryder and compression rings.
13	Threaded Hex bolt, M4, 40 mm long	1		m4 threaded hex bolt	For extracting valve assemblies for stage 2 during service

#	Item Description	Qty	Photo	Requirements / Alternatives	Tool Purpose
14	Threaded Hex bolt, M6, 60 mm long	1		m6 threaded hex bolt	For extracting valve assemblies for stage 1 during service
15	Retracting-Blade Utility Knife	1			Used for opening spare parts packages.
16	12-Point Socket Deep, Chrome Plated, 3/8" Square Drive, 17mm Size	1			Used to tighten or loosen nuts and bolts on the booster compressor
Additional tools required for maintenance that should be provided with the booster compressor by the manufacturer.					
#	Item Description	Qty	Photo	Requirements / Alternatives	Tool Purpose
17	Insertion tool HP45	1		Must be procured from manufacturer	Used to help insert piston back into sleeve and to place compression rings back onto piston.
18	Centralizing bolt HP45	1		Must be procured from manufacturer	To ensure piston and piston housing alignment.

4. Oxygen booster compressor tool kit: Bailian and ULTRACECO

[Applicable to models GOW-3/4-150, GOW 15/4-150 and similar and HPX models]

#	Item Description	Qty	Photo	Requirements / Alternatives	Tool Purpose
1	Combination wrench, 10 mm	1		10 mm	Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
2	Combination wrench, 14 mm	1		14 mm	Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
3	Combination wrench, 16 mm	1		16 mm	Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
4	Combination wrench, 18 mm	1		18 mm	Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
5	Combination wrench, 19 mm	1		19 mm	Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
6	12" Chrome-Plated Adjustable Wrench	1			Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
7	Phillips head screwdriver	1			Used to insert or remove screws to access PSA Plant equipment for internal maintenance or repair

#	Item Description	Qty	Photo	Requirements / Alternatives	Tool Purpose
8	Flat head screwdriver	1			Used to insert or remove screws to access PSA Plant equipment for internal maintenance or repair
9	Ball-End Hex L-Key, 6 mm Size	1			Used to turn bolts or screws with hexagonal sockets to access PSA plant equipment for internal maintenance or repair. Also known as "Hex keys"
10	Synthetic lubricant grease (2 fl oz)	1		Krytox or generic brand with equivalent specifications	Primarily lubricates o-rings; causes them to stay in place and seals from air passing.
11	High Precision Stainless Steel Lab Tweezers	1			Used for small precision movements and grabbing while doing maintenance inside of the booster compressor.
12	Pick With 45 Degree Angle Tip And Straight Handle	1		45 degree angle	Used for small precision movements; specifically removing ryder and compression rings.
13	Sandpaper	1		3000 grit	To buffer clean the valves
14	Nitrile gloves	1			Personal Protective Equipment (PPE). Protects technicians' hands and keeps Oxygen Cleaned parts & tools oil free.

#	Item Description	Qty	Photo	Requirements / Alternatives	Tool Purpose
15	Wipes	1		Lint free	Used to create a clean oxygen safe working environment. Also to wipe down dirty equipment.
16	Zippered Tool Bag with pockets	1		Approximately 12in.	Used to hold all tools and keep them organized and accounted for
17	Tight-Clearance Offset Socket, 3/8" Square Drive, 18 mm	1			Used to tighten and loosen nuts that are difficult to access with a standard wrench
18	Wobble Socket Extension with 3/8" Square Drive	1			Used to tighten and loosen nuts that are difficult to access with a standard wrench
19	4th piston ring install tool	1			Used to help insert the final stage piston back into the sleeve and to place compression rings back onto the piston.
20	piston rod protective sleeve tool	1			Protects piston rod and compression / rider rings from being damaged during insertion
21	Fine-Thread Alloy Steel Socket Head Screw, M6 x 0.75 mm Thread, 16 mm Long	1			Used to remove the 4th stage piston from it's housing

5. Oxygen booster compressor tool kit: Anshan Jiapeng

[Applicable to Anshan Jiapeng models]

#	Item Description	Qty	Photo	Requirements / Alternatives	Tool Purpose
1	Combination Wrench, 8 mm	1		8 mm	Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
2	Combination Wrench, 10 mm	1		10 mm	Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
3	Combination Wrench, 17 mm	1		17 mm	Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
4	Combination Wrench, 18 mm	1		18 mm	Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
5	Combination Wrench, 30 mm	1		30 mm	Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
6	12" Chrome-Plated Adjustable Wrench	1			Used to turn or loosen nuts and bolts for access to PSA Plant equipment for internal maintenance or repair
7	Phillips Head Screwdriver	1			Used to insert or remove screws to access PSA Plant equipment for internal maintenance or repair
8	Flat Head Screwdriver	1			Used to insert or remove screws to access PSA Plant equipment for internal maintenance or repair

#	Item Description	Qty	Photo	Requirements / Alternatives	Tool Purpose
9	Hex L-Key, 5 mm Size	1			Used to turn bolts or screws with hexagonal sockets to access PSA plant equipment for internal maintenance or repair. Also known as "Hex keys"
10	Hex L-Key, 8 mm Size	1			Used to turn bolts or screws with hexagonal sockets to access PSA plant equipment for internal maintenance or repair. Also known as "Hex keys"
11	Synthetic Lubricant Grease (2 Fl Oz)	1		Krytox or generic brand with equivalent specifications	Primarily lubricates o-rings; causes them to stay in place and seals from air passing.
12	Pick with 45 Degree Angle Tip	1		45 degree angle	Used for small precision movements; specifically removing ryder and compression rings.
13	Nitrile Gloves	1			Personal Protective Equipment (PPE). Protects technicians' hands and keeps Oxygen Cleaned parts & tools oil free.
14	Wipes	1		Lint free	Used to create a clean oxygen safe working environment. Also to wipe down dirty equipment.
15	15 in. Tool Bag with 14 Pockets	1		Approximately 15in.	Used to hold all tools and keep them organized and accounted for