

Work instruction — air compressor preventive maintenance

Document no.	WI-MNT-014	Revision	1.0
Title	Air compressor — routine preventive maintenance	Effective date	22 / 09 / 2026
Equipment / area	Reciprocating air compressor, 7.5 kW, 270 L receiver	Department	Maintenance
Frequency	Every 500 operating hours or 6 months	Page	1 of 1

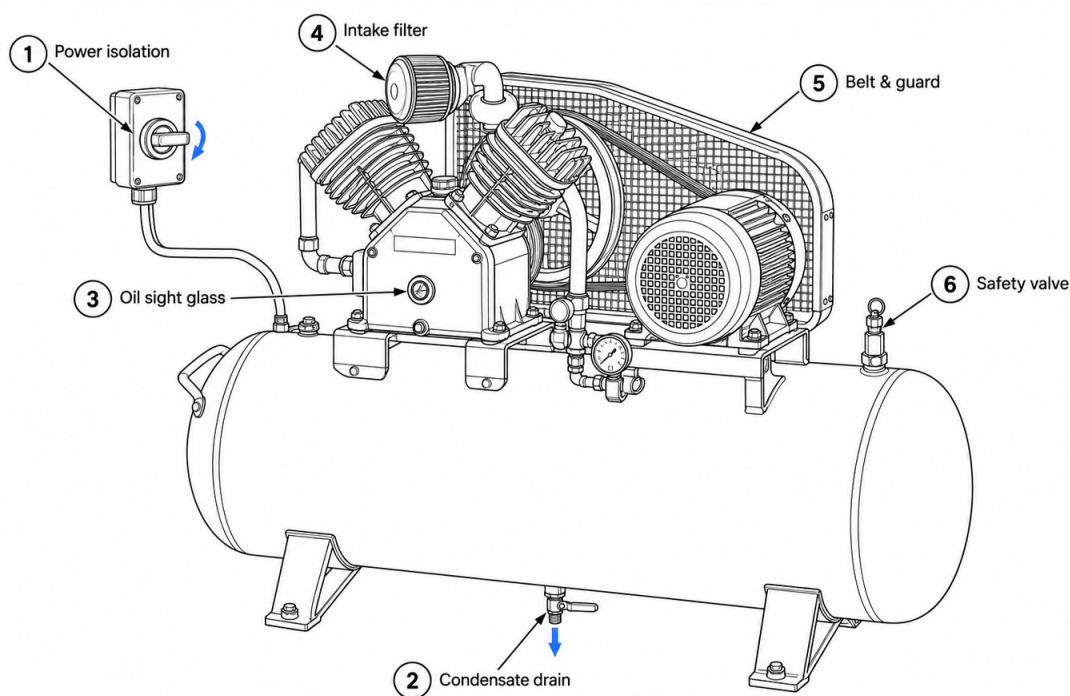
PPE and safety

Safety glasses, gloves and hearing protection. Compressed air and stored energy are present: isolate the machine and verify zero pressure before any work, following the site lockout/tagout procedure.

Tools and materials

Padlock and tag · drain pan · compressor oil to the nameplate grade · replacement intake filter element · 13 mm spanner · clean lint-free cloth.

Service points



Routine service points referenced by the steps below

Procedure

Step	Operation	Key points / acceptance
1	Switch the compressor off at the wall isolator and fit a padlock and tag. Close the outlet ball valve. Confirm the receiver gauge reads 0 bar before going further.	Key point: Do not rely on the pressure switch alone to isolate the machine. Accept: Isolator locked and tagged; gauge reads 0 bar.

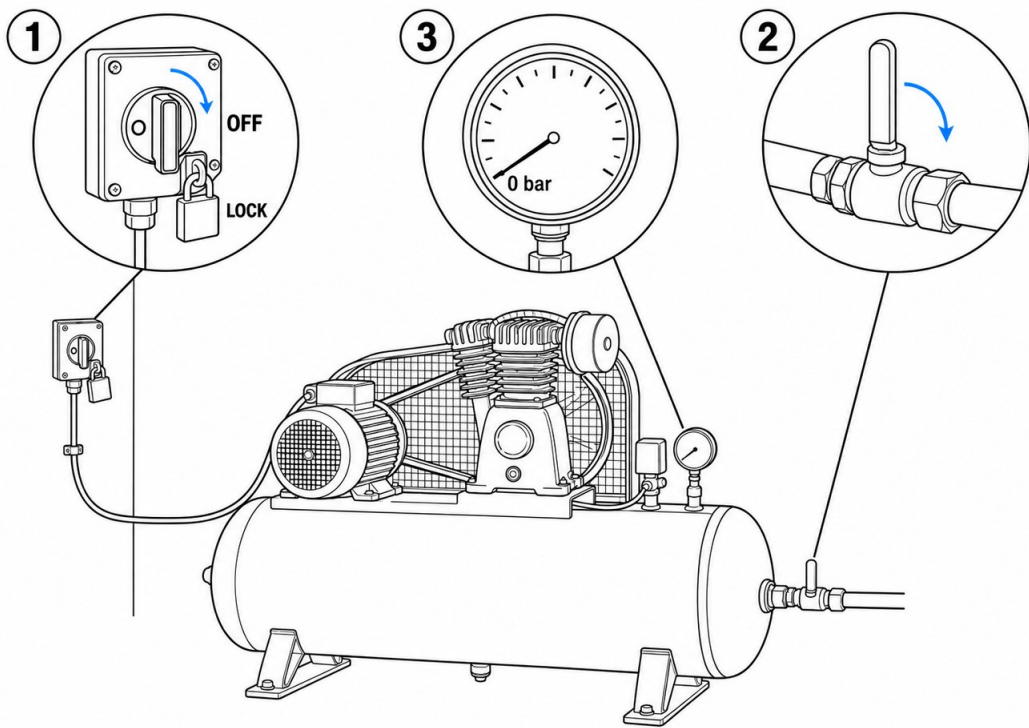


Figure 1 — Isolator locked off; outlet valve closed, gauge at zero

Step	Operation	Key points / acceptance
2	Place the drain pan under the receiver. Open the drain valve fully and let the condensate discharge until only air escapes, then close the valve.	Key point: Drain only with the tank at zero pressure. Accept: No liquid remains; drain valve closed.

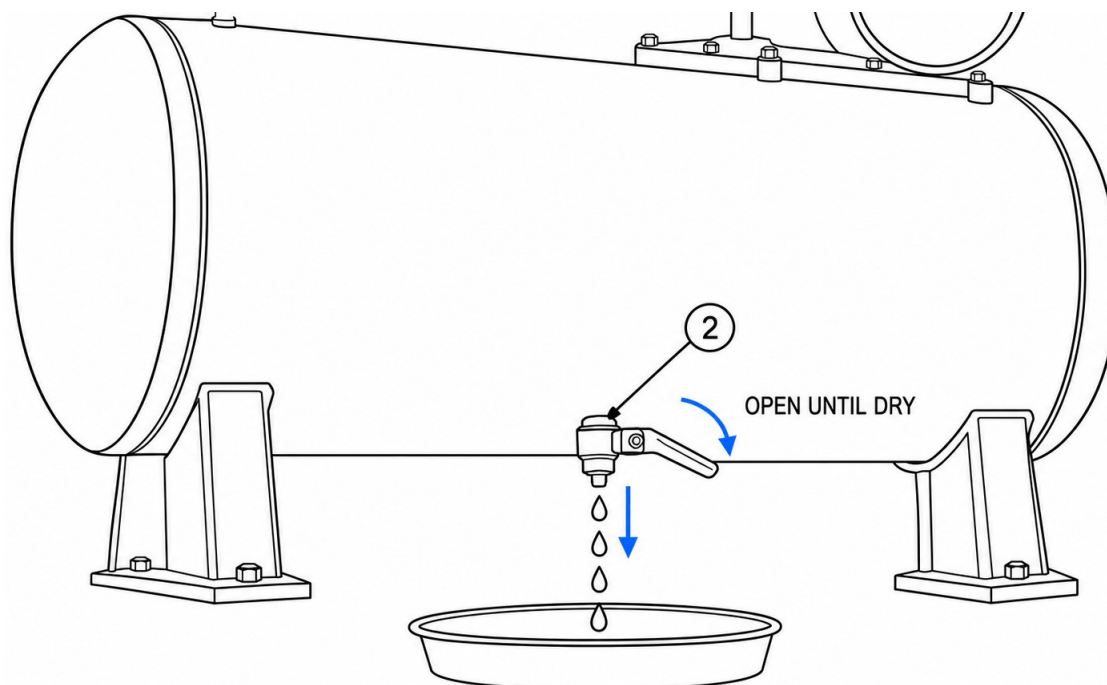


Figure 2 — Condensate drained from the bottom of the receiver

Step	Operation	Key points / acceptance
3	Read the crankcase sight glass. The level must sit between MIN and MAX. If low, top up through the fill port with the grade given on the machine nameplate.	Key point: Do not overfill above MAX; excess oil carries over into the air line. Accept: Level between MIN and MAX; fill cap refitted.

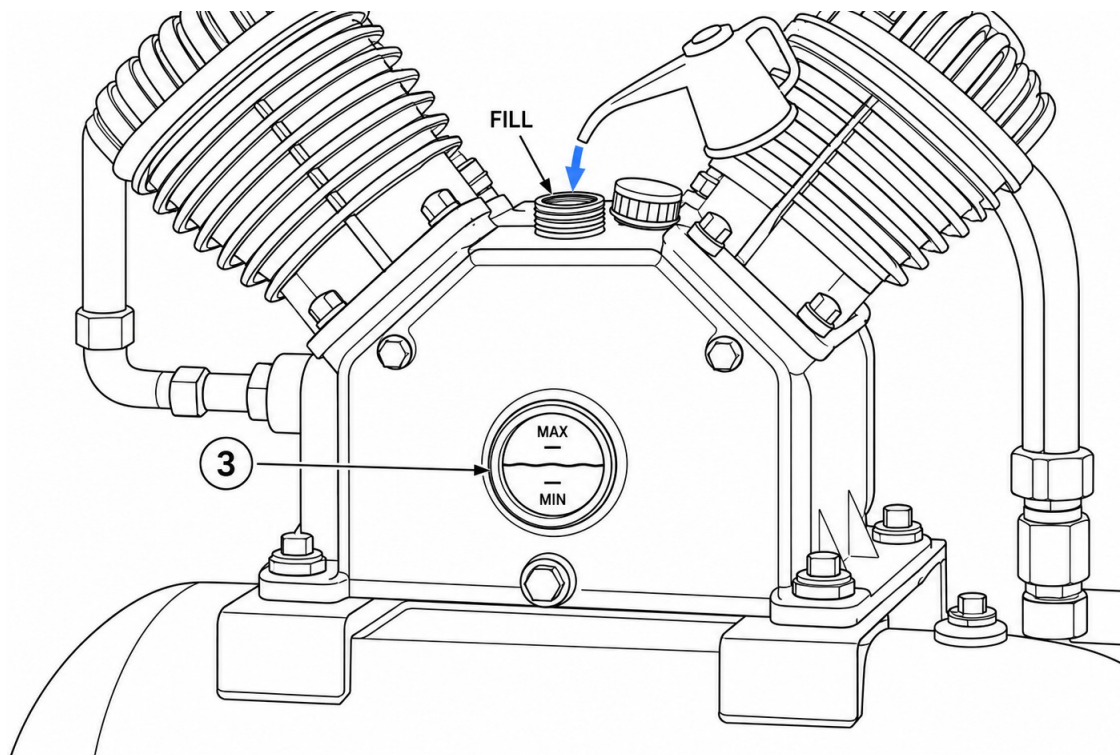


Figure 3 — Oil level read against the MIN and MAX marks

Step	Operation	Key points / acceptance
4	Unscrew the wing nut, lift the cover and withdraw the element. Replace it if it is discoloured or clogged. Refit the cover and tighten the wing nut by hand.	Key point: A clogged element raises running temperature and oil carryover. Accept: Clean element fitted; cover secure.

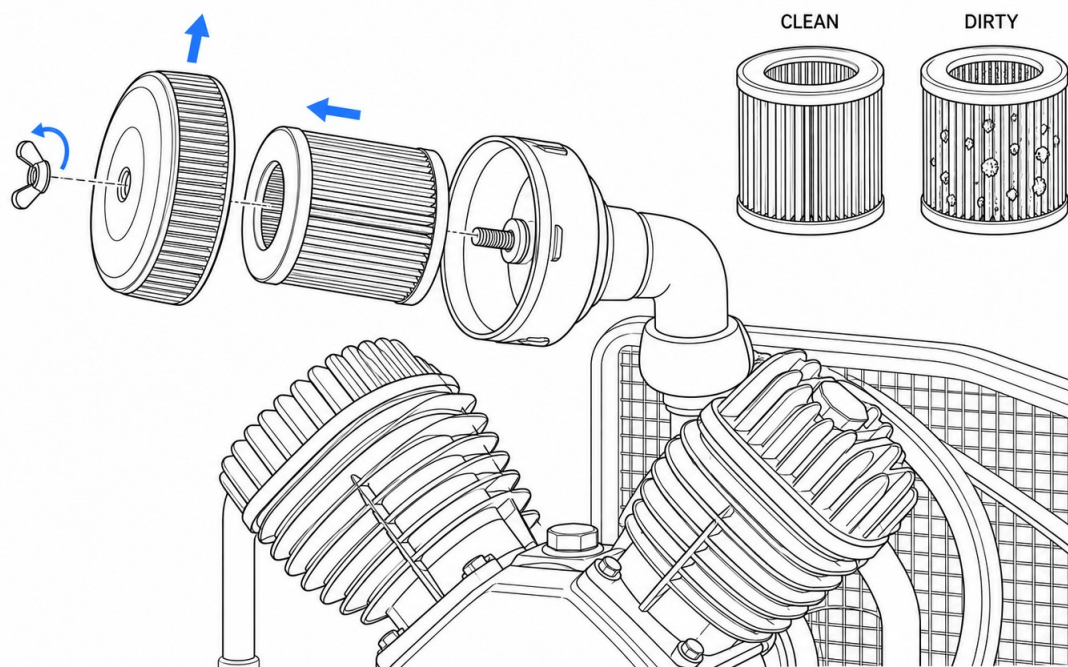


Figure 4 — Intake filter element withdrawn, clean against clogged

Step	Operation	Key points / acceptance
5	Remove the belt guard. Press the belt at mid-span with moderate thumb pressure; deflection should be about 13 mm. Adjust the motor slide rails if it is outside tolerance, then refit the guard.	Key point: Never run the compressor with the belt guard removed. Accept: Deflection approximately 13 mm; guard refitted.

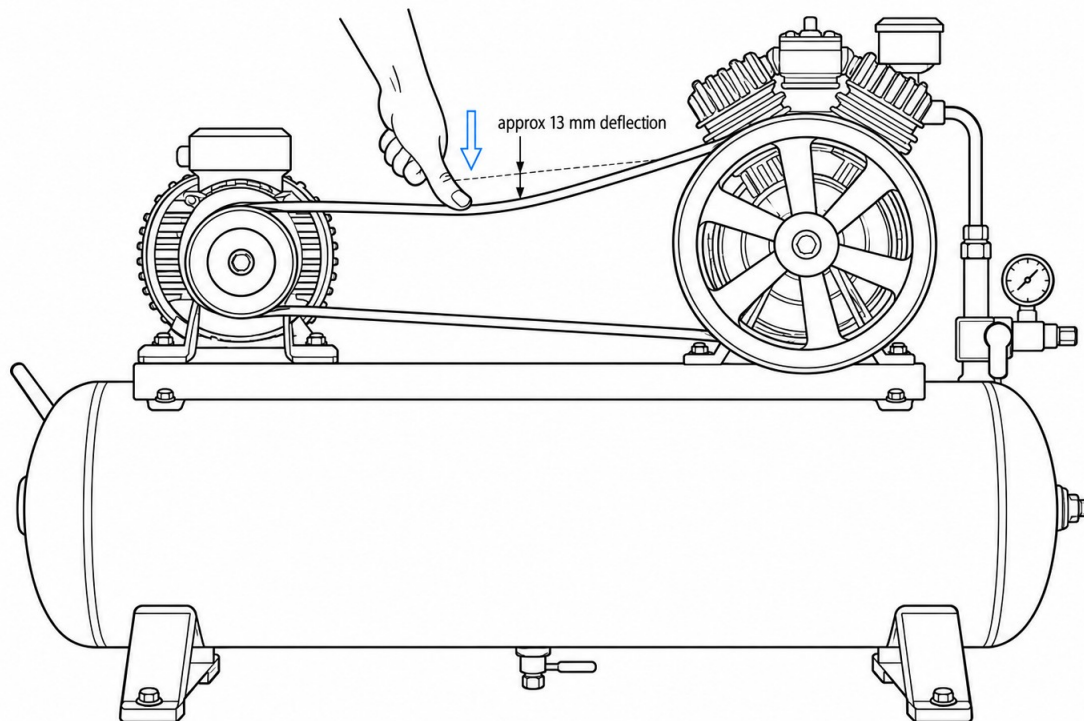


Figure 5 — Belt deflection checked at mid-span

Step	Operation	Key points / acceptance
6	With the receiver repressurised, pull the relief valve test ring, allow a brief discharge, then release it. The valve must reseal cleanly.	Key point: Stand clear of the discharge path and wear hearing protection. Accept: Valve lifts and reseats with no audible leak.

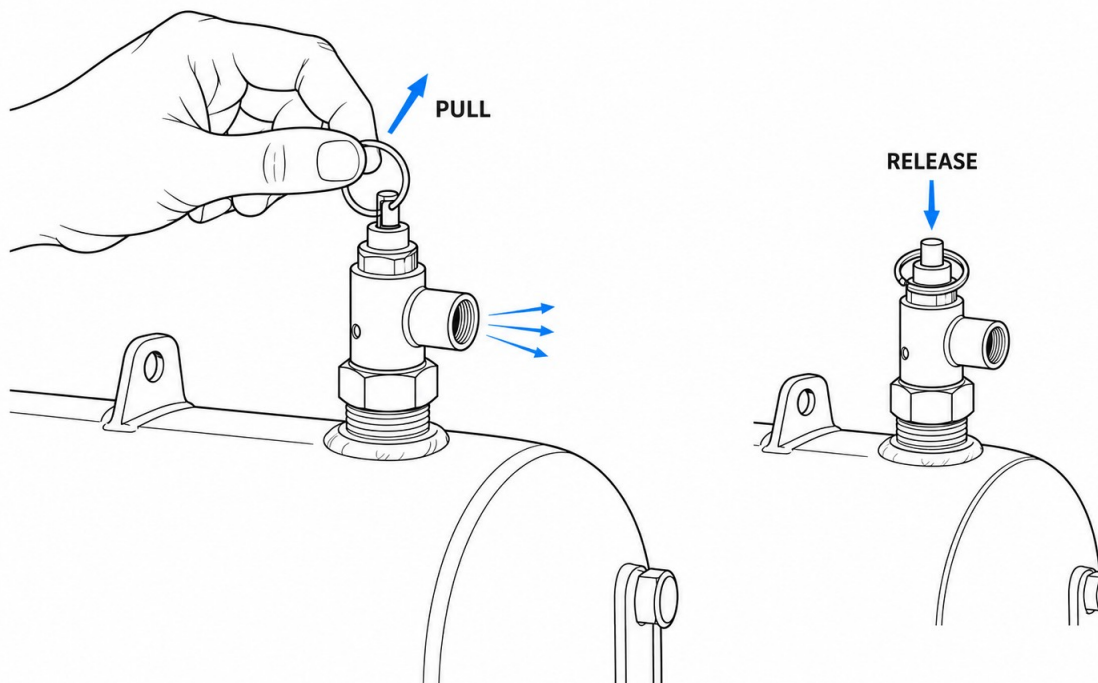
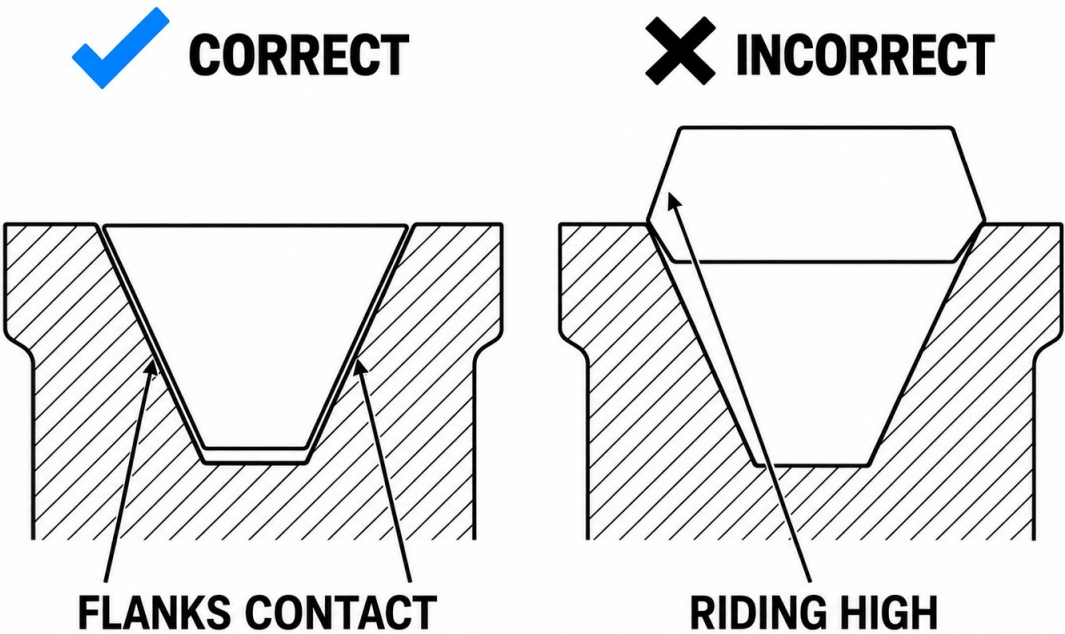


Figure 6 — Relief valve test ring pulled, then released to reseal

Quality check — belt seating



A correctly seated belt against one riding high in the groove

Sign-off

Prepared by	Reviewed by	Approved by	Date

Revision history

Revision	Date	Change	Author
1.0	22 / 09 / 2026	First issue	

This document is a layout example produced to show how an illustrated work instruction is put together. It is not a validated maintenance procedure: check every value against your own equipment manual before use.