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INSPECTION BETWEEN THE POINT OF APPLICATION AND THE PIPING SYSTEM

Internal	External	✓ Actions	Notes
☐	☐	1.1 Leak detection ☐ Perform an auditory check to detect leaks at the level of the FRLs, hoses, couplers, tools and equipment, up to the compressed air piping system ☐ Use the “Air Leak Report” guide available in Appendix (p.9)	
☐	☐	1.2 Inspection of the state of wear of the FRLs ☐ Check for any noticeable air leak ☐ Make sure that the percentage of pressure loss is acceptable ☐ That filtering elements are not saturated (the differential pressure indicator is in the green zone) ☐ That bowls are in good condition (no cracks, no impurities) ☐ That regulators and gauges are functional ☐ That the oil level in the lubricators is adequate	
☐	☐	1.3 Inspection of the state of wear of quick couplers, plugs and fittings ☐ Check for any noticeable air leaks ☐ Make sure that couplers do not show sign of wear (no sharp edge, no rust) ☐ That the connection/disconnection is easy (change for safety couplers) ☐ That there is sufficient airflow (if needed, change for a fitting with a higher SCFM)	
☐	☐	1.4 Inspection of the state of wear of the hoses and reels ☐ Identify noticeable air leaks ☐ Check the tension of the reels (watch the video “Spring Tension Adjustment” on TOPRING.com) ☐ Check the condition of the hoses (no apparent wear or swelling/bubble) — repair if necessary or choose a hose that’s better suited to the environment ☐ Check the length and diameter of the hoses (if needed, choose a hose with a larger diameter or a shorter one for greater flow) ☐ Install anti-hose whip HOSEGUARD safety valves (see series 58)	

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Carried out by: _____ Date: _____ (DD) _____ (MM) _____ (YYYY)

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INSPECTION BETWEEN THE POINT OF APPLICATION AND THE PIPING SYSTEM

Internal	External	✓ Actions	Notes
☐	☐	1.5 Inspection of the state of wear of pneumatic tools ☐ Identify noticeable air leaks ☐ Look for rust ☐ Replace worn out or defective blow guns with safe, quiet or low-consumption blow guns ☐ Repair or replace all worn out or faulty tools ☐ Check the tool's working pressure (if needed, install an in-line regulator)	
☐	☐	1.6 Inspection of the state of wear of automation products (valves, cylinders, push-to-connect fittings, and pneumatic tubings) ☐ Identify noticeable air leaks (at the level of the couplers, valves, cylinders, and of the mufflers) ☐ Check the condition of the pneumatic tubings (not cracked) ☐ Check the condition of the cylinders (firmly anchored, good rod alignment)	
☐	☐	1.7 Control of the new compressed air requirements ☐ Have new tools and equipment been installed in the past year? ☐ Is the capacity of the network and connection lines (including FRLs, hoses, reels and fittings) still sufficient? ☐ Are there any new air quality requirements?	

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Carried out by: _____ Date: _____ (DD) _____ (MM) _____ (YYYY)

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INSPECTION OF THE MAIN PIPING SYSTEM

Internal	External	✓ Actions	Notes
☐	☐	2.1 Leak detection ☐ Perform an auditory check to detect leaks in the main piping system and drops (couplers, elbows, unions, manifolds) ☐ Use the “Air Leak Report” guide available in Appendix (p.9)	
☐	☐	2.2 Connection between the compressor and the main pipes ☐ Make sure that there is a flexible anti-vibration hose between the compressor and the compressed air system	
☐	☐	2.3 Configuration of the pipes ☐ Prioritize a constant size of piping diameter (to avoid pressure loss due to throttling) ☐ Prioritize a closed-loop network (see the introduction to compressed air piping systems at the beginning of group 2 in the TOPRING catalogue) ☐ Install ball valves to enable isolating sections of the network (safety Lockout ball valves ensure that air-powered equipment is safe to service)	
☐	☐	2.4 Water or rust presence ☐ Make sure that there is a condensate drain on each service drop and end of line	

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QUALITY CONTROL OF THE AIR EXITING THE COMPRESSOR (CONDENSATE TREATMENT)

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☐	☐	3.1 Leak detection ☐ Perform an auditory check to detect leaks between the compressor and the main piping system ☐ Use the “Air Leak Report” guide available in Appendix (p.9)	
☐	☐	3.2 Inspection of the main filtration system ☐ Are there any new air quality requirements? ☐ Are the filters equipped with a drainage system and connected to a water/oil separator? ☐ Make sure that the filtration elements are not saturated	
☐	☐	3.3 Inspection of the “zero air loss” automatic drains ☐ Make sure that there are “zero air loss” automatic drains installed at the following locations: ☐ – Compressor ☐ – Water separator ☐ – Refrigerant air dryer ☐ – Compressed air filters ☐ – Compressed air tank	
☐	☐	3.4 Inspection of the compressed air filters ☐ Check that the filtering elements are in good condition (not saturated) ☐ Check that the elements are appropriate for the air quality required (see series 53)	
☐	☐	3.5 Inspection of the water/oil separator ☐ Make sure that all the elements collecting condensates are connected to the separator ☐ Check that the element are in good condition (not saturated) and that condensates are properly treated	

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APPENDIX – AIR LEAK REPORT

Carried out by: _____ Date: _____ (DD) _____ (MM) _____ (YYYY)

No	Compressor Room	Location/ Leak Site	Leak Description	Seriousness of the Problem		Potential Risks/ Safety	Repair Period Planned		Date leak is repaired
				High	Moderate		Active (ON)	Shut down (OFF)	
				High	Moderate	Low	Active (ON)	Shut down (OFF)	
				High	Moderate	Low	Active (ON)	Shut down (OFF)	
				High	Moderate	Low	Active (ON)	Shut down (OFF)	
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