



Compressed Air Leak Survey

SAMPLE REPORT

Bury St Edmunds

By

Pixel Thermographics Surveyor

Pixel Thermographics Ltd

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Hulley Road
Macclesfield
Cheshire
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Report Details

Client:	<i>Confidential</i>
Inspection Site:	Bury St Edmunds
Contact Person:	<i>Confidential</i>
Surveyor:	<i>Confidential</i>
Survey Equipment:	UE Systems Ultraprobe 2000 – Ultrasonic Leak Detector
Survey Date(s):	1st December 2022

 PIXEL Thermographics	Ultrasonic Compressed Air Leak Survey SAMPLE REPORT	Inspection Date: 1st December 2022
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Survey Information

This Compressed Air Leak survey was carried out on behalf of '*confidential*', Bury St Edmunds. This is a report on the conditions prevailing when the site was surveyed.

A UE Systems Ultraprobe ultrasonic leak detector was used to capture the ultrasonic data which is recorded within this report.

Where equipment was surveyed and no leaks or faults were found then no data is recorded i.e. individual reports are generated by exception. Some areas of particular interest may be included which the surveyor feels may be of particular interest to the client.

Descriptions of equipment and locations have been noted as those in common usage within the client's premises.

Follow up work including remedial work and investigations into causation etc. or any other factors outside the control of Pixel Thermographics Ltd are not the responsibility of Pixel Thermographics Ltd and are not covered by this contract.

Where Pixel Thermographics Ltd have been unable to inspect equipment or plant which is covered, unexposed or inaccessible, we are therefore unable to report that any such system components are free from defect. Areas un-inspected are highlighted in the scope pages of this report.

To assist the Engineering Management to maintain plant efficiency, it is recommended that the survey is repeated on a twelve monthly basis.

This report is an indication of the condition of the equipment inspected at the time and date of survey only.

Signed:

Date: 1st December 2022

Surveyor
Pixel Thermographics Ltd

Disclaimer:

Please note that the report contained herein represents the observed conditions at the time of inspection. Pixel Thermographics Ltd accepts no liability for faults that have occurred during or after the completion of the inspection.

The recommendations given in this report are intended as a guide only. By issuing this report neither Pixel Thermographics Ltd nor any of its employees make any warranty, expressed or implied, concerning the contents of this report. Pixel Thermographics Ltd cannot accept responsibility for inappropriate actions taken as a result of this report.

Scope of Survey

The scope of this survey was to carry out a compressed air leak survey across the site on all areas where compressed air systems are located.

This encompassed internal and external areas throughout the site which were made accessible by the client.

Report Data

A summary of all ultrasonic data is contained in the report pages that follow. The pages in this report have been designed as single page entries, each of which carries its own information so that individual pages can be given to the relevant professions in order that they may carry out any remedial repairs that may be necessary.

Compressed Air Leak Surveys

All compressed air systems are subject to mechanical deterioration at connections, flexible pipes, regulators, valves etc. due to looseness, over-tightening, corrosion and contamination. If these conditions remain uncorrected further deterioration will occur resulting in equipment failure and leakages of expensive compressed air.

Compressed air is not free and it costs hard earned revenue to generate with the following costs being part of the generation process:

- Compressor Cost (Purchase)
- Electricity costs
- Generation Efficiency Cost
- Air Drier running costs
- Maintenance costs
- Equipment deterioration

As such compressed air is one of the most costly utilities in a facility today. A simple program of leak inspection and repair can go a long way towards reducing excessive energy cost.

Leak Levels and Ratings

This survey has been designed to assess the performance of all compressed air generation, distribution and equipment on site and to highlight any areas which require attention. To assist in the prioritising of repairs we apply a severity rating (level) based on the results of the leak detection survey. The severity levels are ranked as follows:

Level	Leak Size in CFM:		Leak Description:
	Minimum	Maximum	
1	0.01	0.50	Small
2	0.50	1.50	Medium
3	1.50	2.50	
4	2.50	4.00	
5	4.00	6.00	Large
6	6.00	8.00	
7	8.00	10.00	
8	10.00	15.00	
9	15.00	25.00	Very Large
10	25.00	100.00	

Leak Cost Data

We calculate individual leak costs based on the following information provided by the client and from compressor data:

Detail	Value
Cost of Electricity (p/kWh)	26
Compressed Air Generating Efficiency (kW/100cfm)	22
Generating Pressure (BarG)	7
Hours of Operation per Year (Hours)	5876

Calculated Cost of Leakage

Number of Leaks Identified	Total Cost of Wasted Energy in £
32	£10,354

Summary of Air Leaks Detected

Ultrasonic leak detection equipment was utilised to locate and measure air leakage from compressed air systems. Below is a summary of all leaks found:

Leak No.	Area:	Leak details:	Level:
1	Compressor House	Leak From Filter Body	1
2	Stores	Leak From Threaded Pipe Blank Connection High Level (No Label Attached)	1
3	Stock Room	Leak From Filter Body	3
4	Stock Room	Leak From Threaded 90 Degree Bend	1
5	Dess Chalwyn Dess 9	Leak From Jubilee Hose Connection	2
6	Dess Chalwyn Dess 0	Leak From Push Fit Hose Connection Under Work Station	2
7	Dess Chalwyn	Leak From Crimped Hose Connection	1
8	Dess Chalwyn Scon 2	Leak From Regulator Body	3
9	Dess Chalwyn Scon 1	Leak From Threaded Filter Connection to Gauge	1
10	Dess Chalwyn	Leak From Top of Filter Body	3
11	Dess Chalwyn Scon 1	Leak From Threaded Connection to Tee	2
12	Dess Chalwyn Scon 1	Leak From Jubilee Hose Connection to Reel	1
13	Lathe Area	Leak From Jubilee Hose Connection to Air Gun	2
14	Air Start Area	Leak From Threaded Pipe Joint Connection	1
15	Centrax Room	Leak From Jubilee Hose Connection to Air Drill	2
16	Bulk Storage Area	Leak From Quick Release Connection to Air Gun	1
17	Bulk Storage Area	Leak From Threaded Quick Release Connection to Tee	1
18	Shop Floor	Leak From Crimped Hose Connection to Quick Release	1
19	Shop Floor	Leak From Regulator Filter Drain	2
20	Shop Floor	Leak From Within Mazak 2	2
21	Shop Floor	Leak From Crimped Hose Connection to Quick Release	3
22	Shop Floor	Leak From Jubilee Hose Connection to Air Gun	2
23	Shop Floor	Leak From Jubilee Hose Connection to 90 Degree Angle	3
24	Shop Floor	Leak From Quick Release Connection to Air Grinder	3
25	Shop Floor	Leak From Pipe Work High Level By Machine 2 (No Label Attached)	2
26	Shop Floor	Leak From Threaded Filter Connection to Gauge	1
27	Shop Floor	Leak From Jubilee Hose Connection & Quick Release Connection to Air Gun	2
28	Shop Floor	Leak From Jubilee Hose Connection to Quick Release	2

	Ultrasonic Compressed Air Leak Survey SAMPLE REPORT	Inspection Date: 1st December 2022
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29	Shop Floor	Leak From Jubilee Hose Connection to Air Gun	2
30	Shop Floor	Leak From Jubilee Hose Connection to Quick Release	3
31	Shop Floor	Leak From Jubilee Hose Connection to Quick Release	2
32	Shop Floor	Leak From Jubilee Hose Connection to Tee	2

Leak No.	Location	Nature of Leak	Level
1	Compressor House	Leak From Filter Body	1

Images of Leak Site


Annual Cost of Leak:	£86
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Repair Completion

Repair Date:		Repaired By:	
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Comments:	
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Leak No.	Location	Nature of Leak	Level
2	Stores	Leak From Threaded Pipe Blank Connection High Level (No Label Attached)	1

Images of Leak Site



Annual Cost of Leak:	£86
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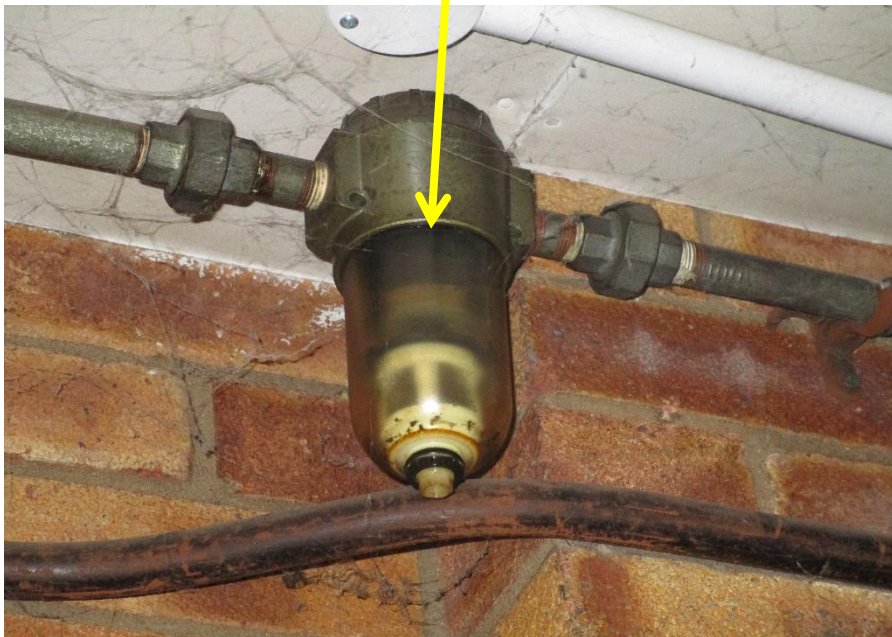
Repair Completion

Repair Date:		Repaired By:	
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Comments:	
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Leak No.	Location	Nature of Leak	Level
3	Stock Room	Leak From Filter Body	3

Images of Leak Site



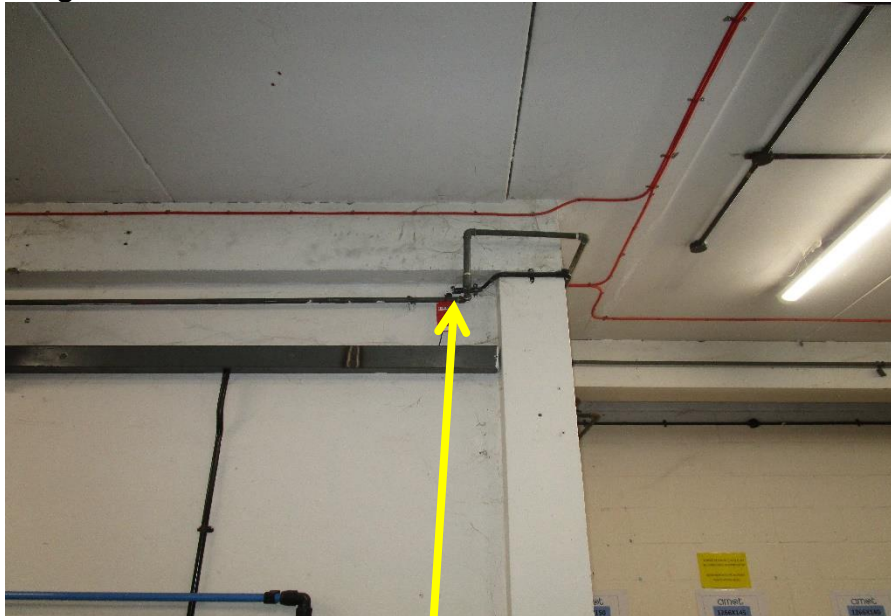
Annual Cost of Leak:	£672
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
4	Stock Room	Leak From Threaded 90 Degree Bend	1

Images of Leak Site

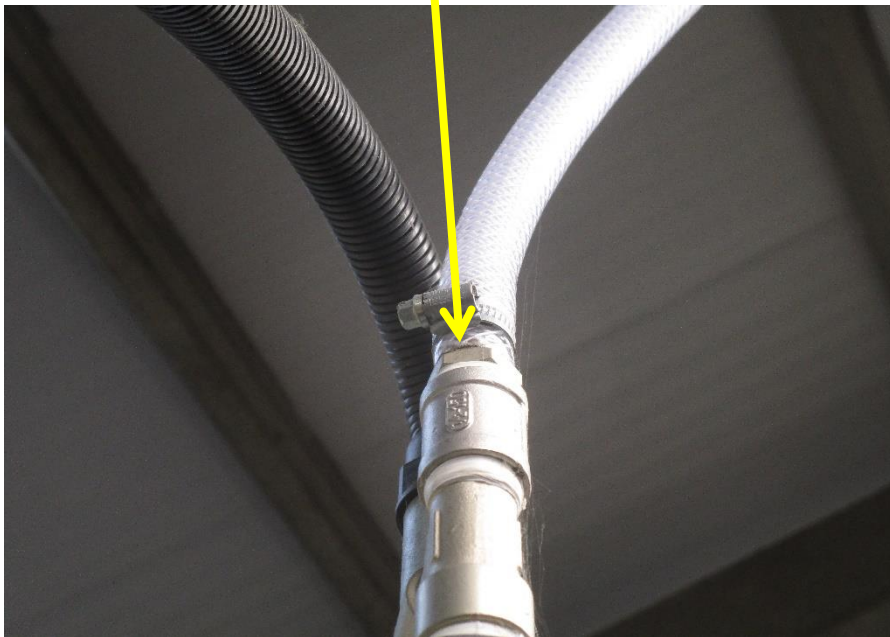


Annual Cost of Leak:	£86
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
5	Dess Chalwyn Dess 9	Leak From Jubilee Hose Connection	2

Images of Leak Site


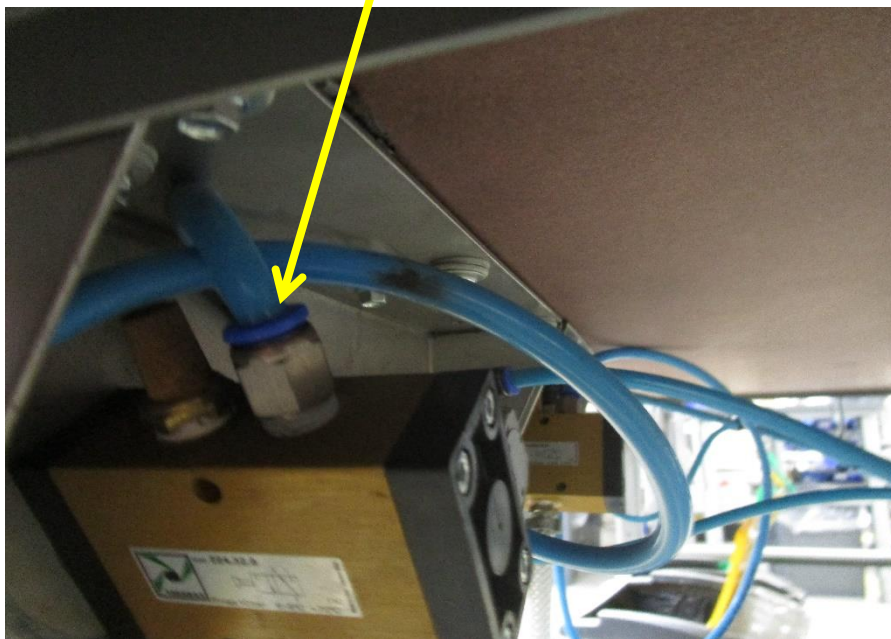
Annual Cost of Leak:	£336
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
6	Dess Chalwyn Dess 0	Leak From Push Fit Hose Connection Under Work Station	2

Images of Leak Site



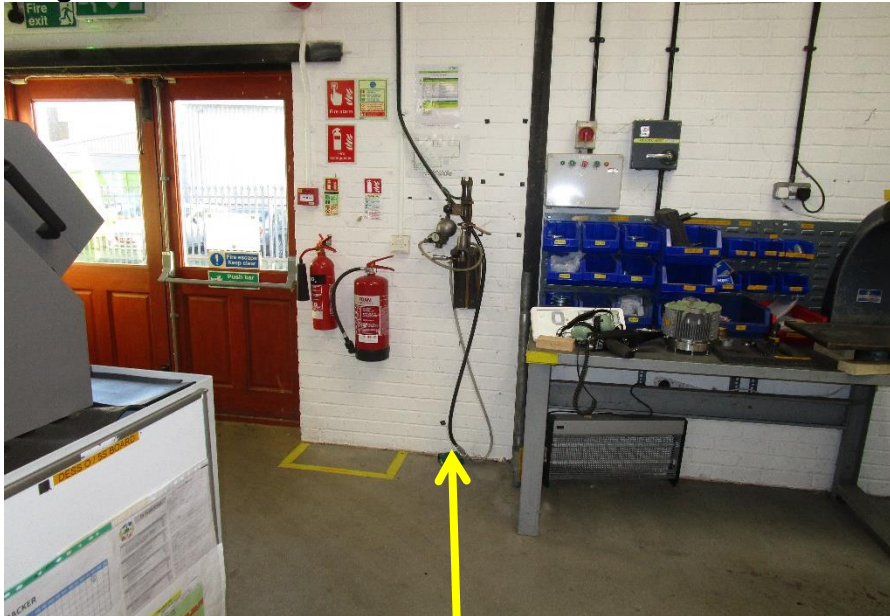
Annual Cost of Leak:	£336
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
7	Dess Chalwyn	Leak From Crimped Hose Connection	1

Images of Leak Site



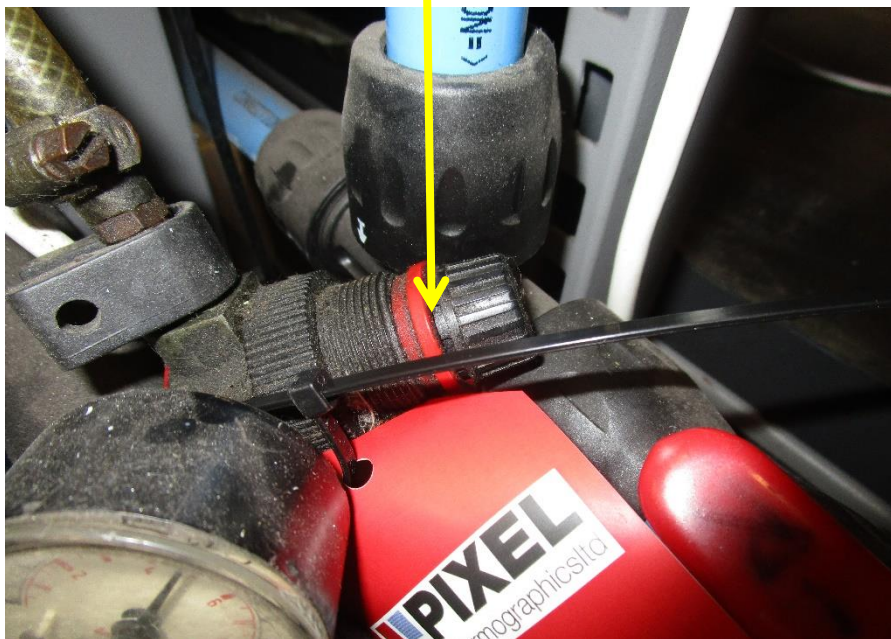
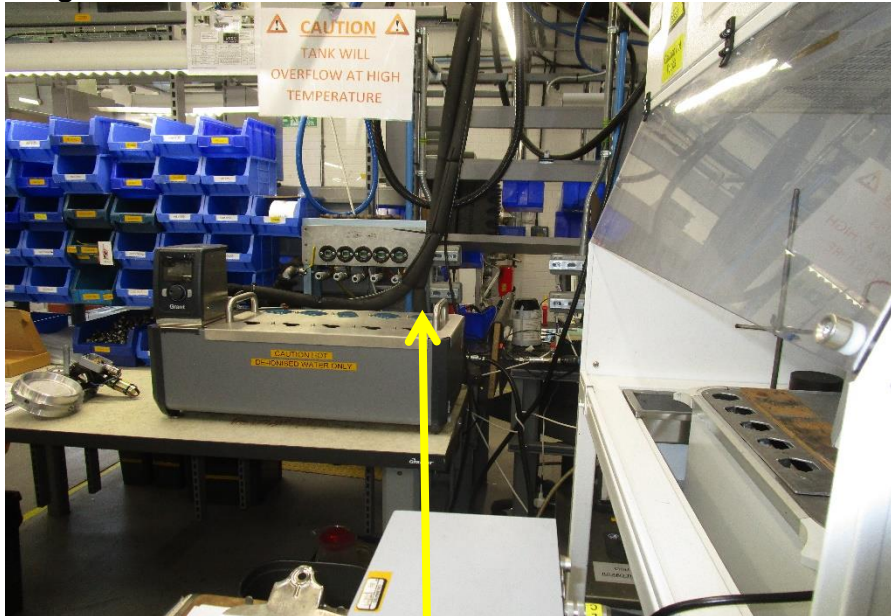
Annual Cost of Leak:	£86
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
8	Dess Chalwyn Scon 2	Leak From Regulator Body	3

Images of Leak Site



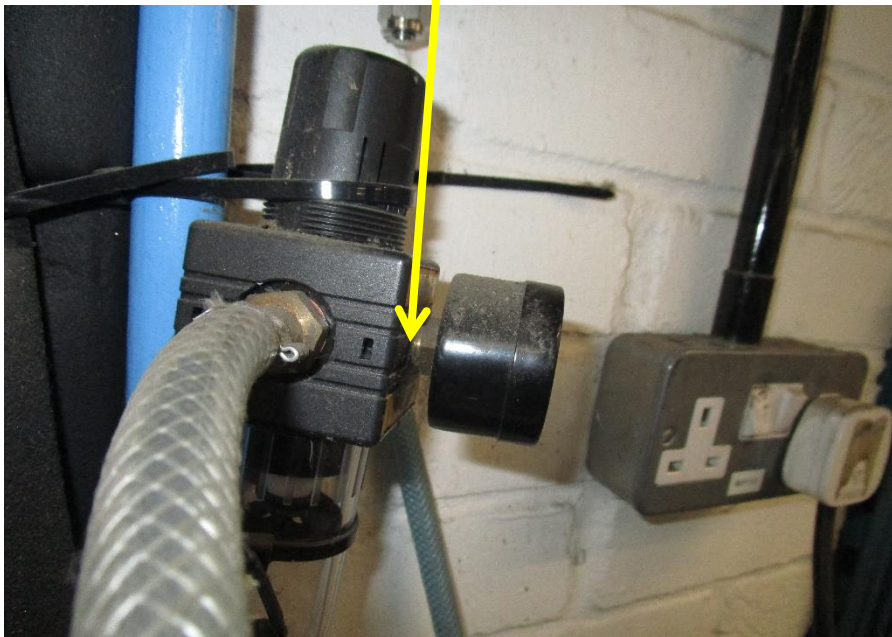
Annual Cost of Leak:	£672
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
9	Dess Chalwyn Scon 1	Leak From Threaded Filter Connection to Gauge	1

Images of Leak Site



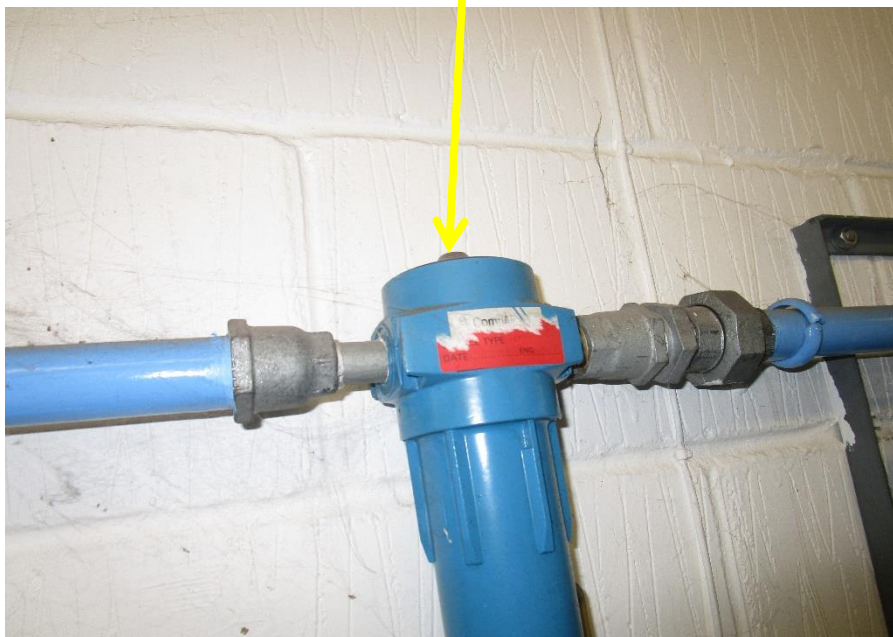
Annual Cost of Leak:	£86
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
10	Dess Chalwyn	Leak From Top of Filter Body	3

Images of Leak Site



Annual Cost of Leak:	£672
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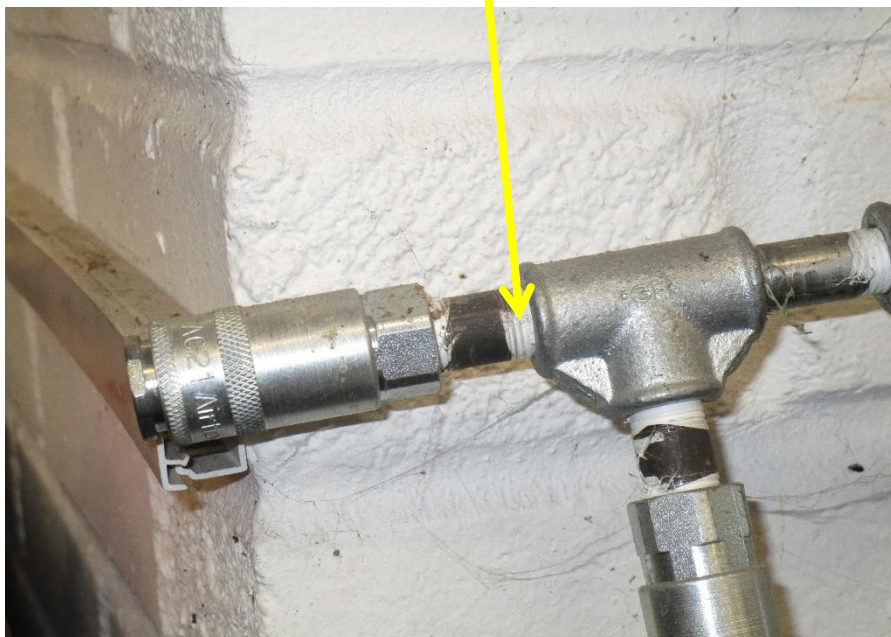
Repair Completion

Repair Date:		Repaired By:	
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Comments:	
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Leak No.	Location	Nature of Leak	Level
11	Dess Chalwyn Sccon 1	Leak From Threaded Connection to Tee	2

Images of Leak Site



Annual Cost of Leak:	£336
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
12	Dess Chalwyn Scon 1	Leak From Jubilee Hose Connection to Reel	1

Images of Leak Site



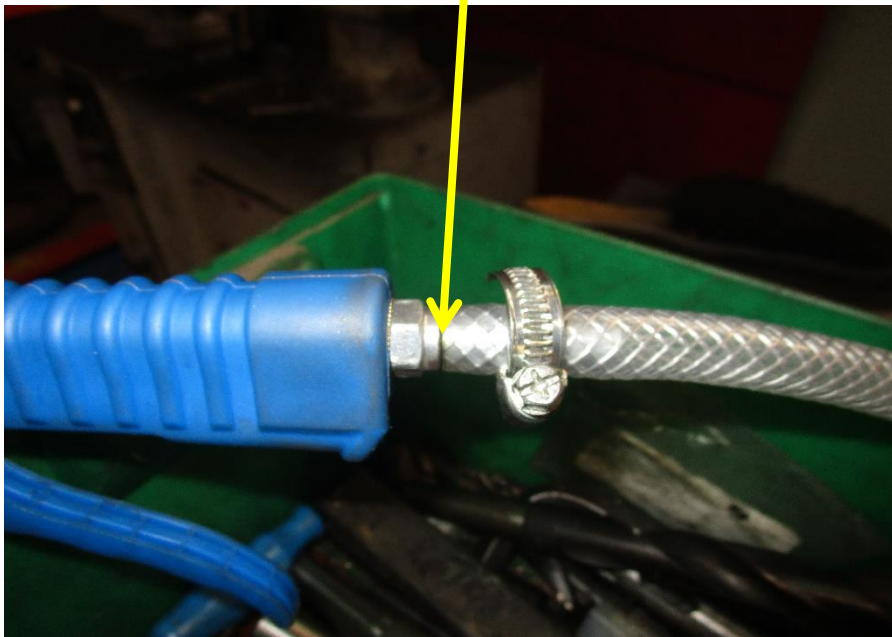
Annual Cost of Leak:	£86
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
13	Lathe Area	Leak From Jubilee Hose Connection to Air Gun	2

Images of Leak Site

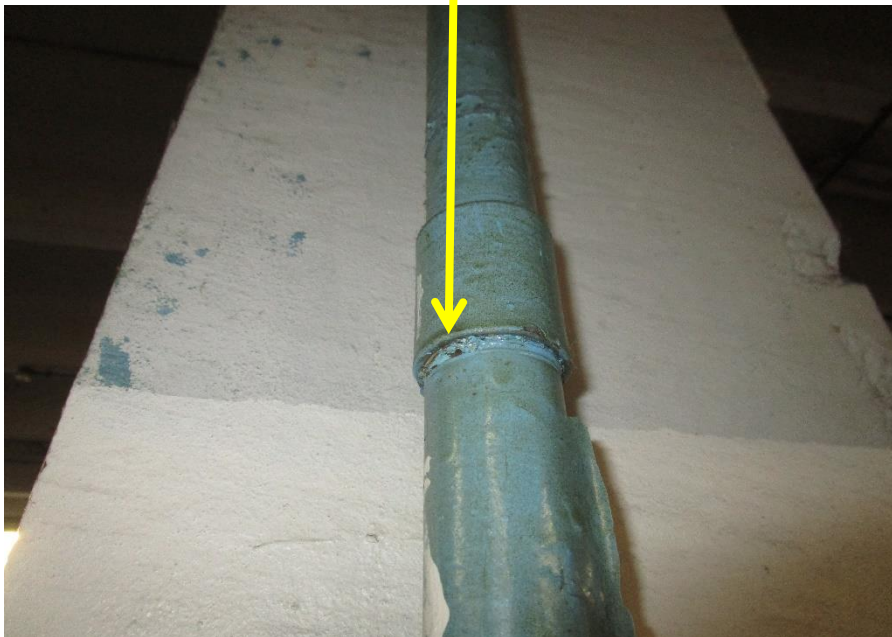


Annual Cost of Leak:	£336
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
14	Air Start Area	Leak From Threaded Pipe Joint Connection	1

Images of Leak Site


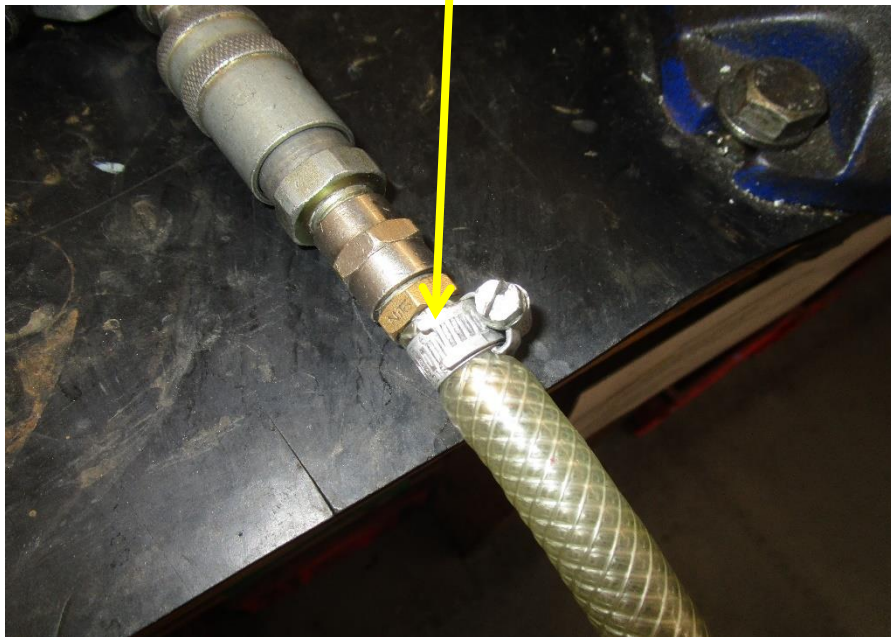
Annual Cost of Leak:	£86
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
15	Centrax Room	Leak From Jubilee Hose Connection to Air Drill	2

Images of Leak Site



Annual Cost of Leak:	£336
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Repair Completion

Repair Date:		Repaired By:	
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Comments:	
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Leak No.	Location	Nature of Leak	Level
16	Bulk Storage Area	Leak From Quick Release Connection to Air Gun	1

Images of Leak Site



Annual Cost of Leak:	£86
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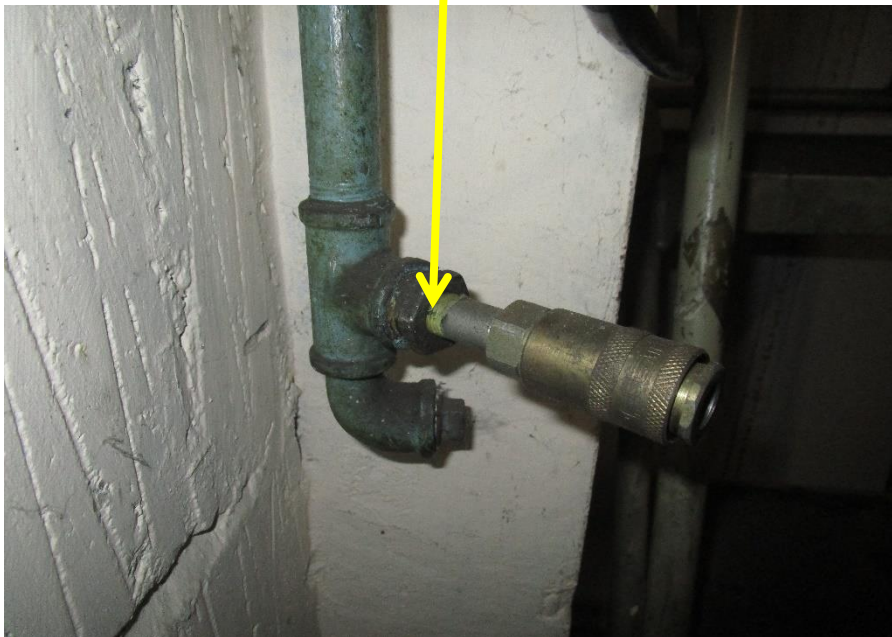
Repair Completion

Repair Date:		Repaired By:	
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Comments:	
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Leak No.	Location	Nature of Leak	Level
17	Bulk Storage Area	Leak From Threaded Quick Release Connection to Tee	1

Images of Leak Site



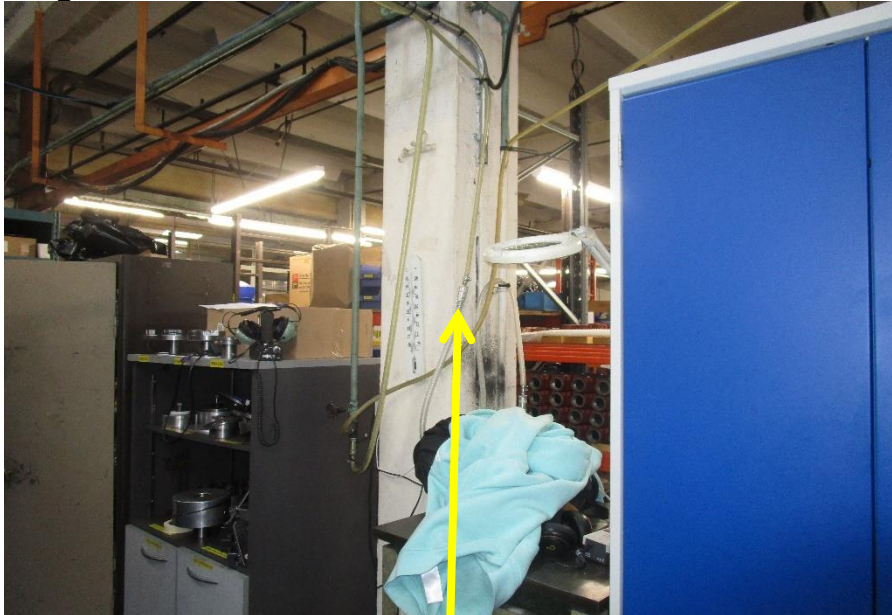
Annual Cost of Leak:	£86
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
18	Shop Floor	Leak From Crimped Hose Connection to Quick Release	1

Images of Leak Site



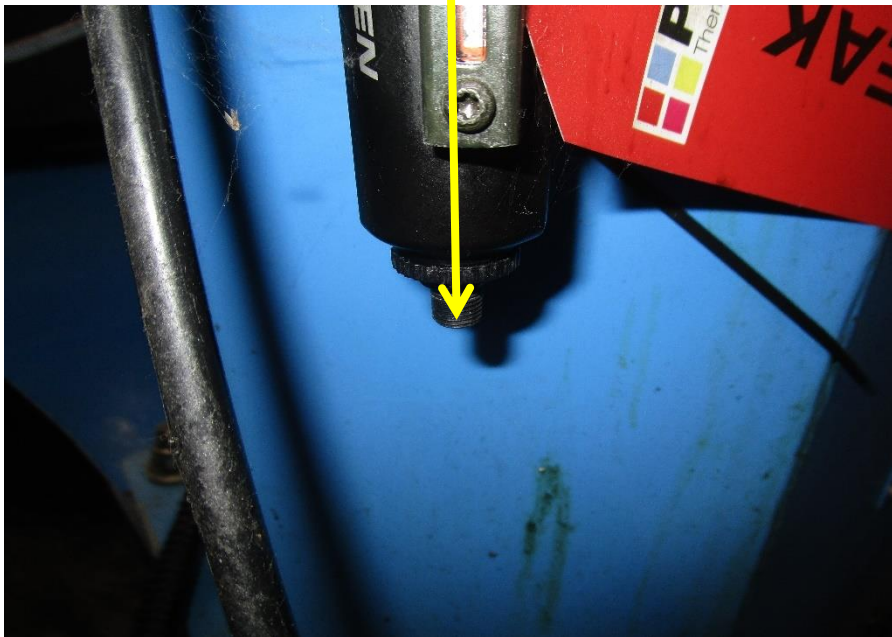
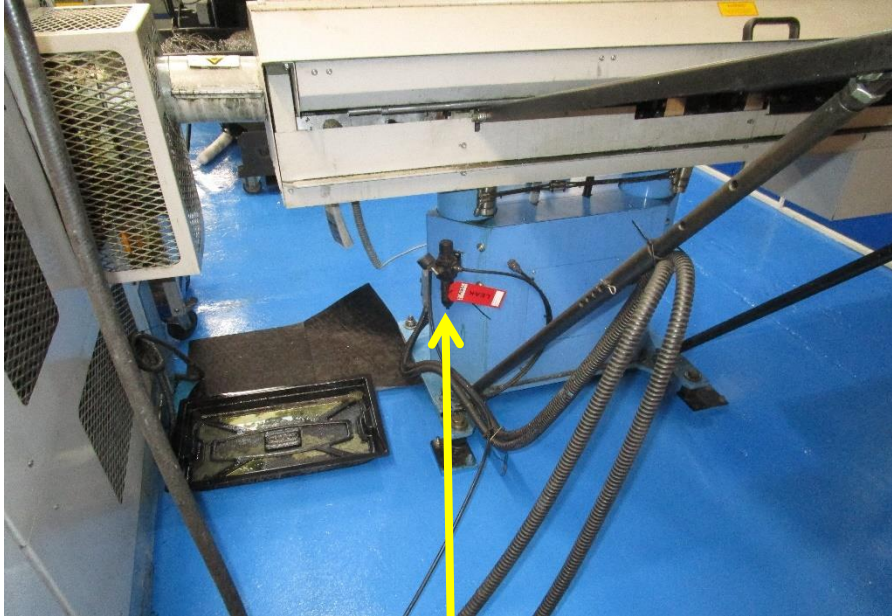
Annual Cost of Leak:	£86
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
19	Shop Floor	Leak From Regulator Filter Drain	2

Images of Leak Site



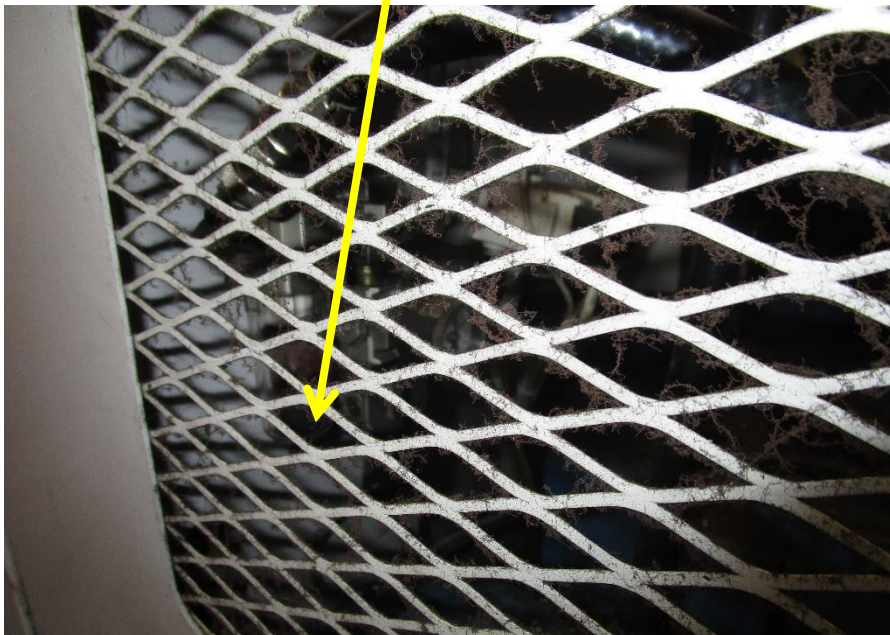
Annual Cost of Leak:	£336
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Repair Completion

Repair Date:		Repaired By:	
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Comments:	
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Leak No.	Location	Nature of Leak	Level
20	Shop Floor	Leak From Within Mazak 2	2

Images of Leak Site


Annual Cost of Leak:	£336
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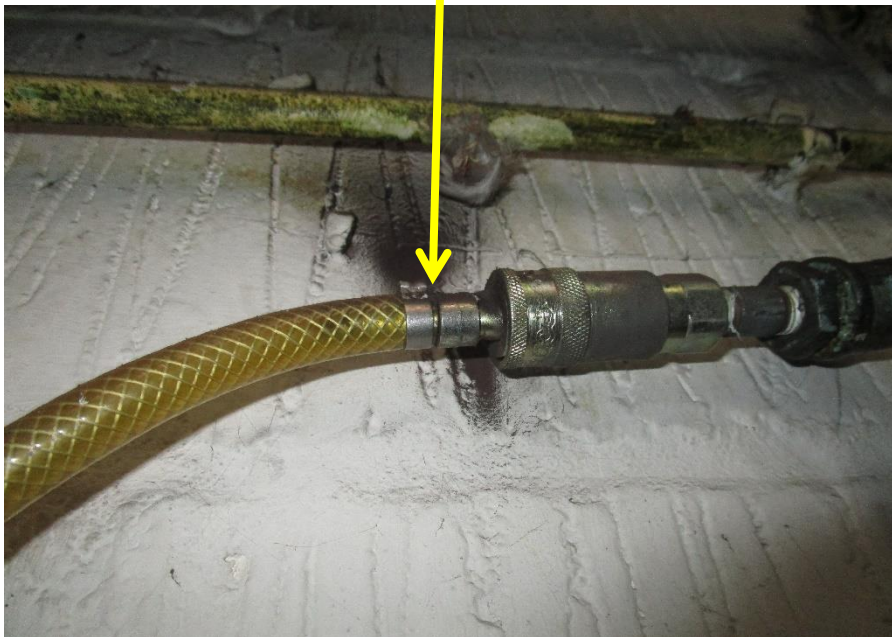
Repair Completion

Repair Date:		Repaired By:	
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Comments:	
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Leak No.	Location	Nature of Leak	Level
21	Shop Floor	Leak From Crimped Hose Connection to Quick Release	3

Images of Leak Site



Annual Cost of Leak:	£672
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Repair Completion

Repair Date:		Repaired By:	
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Comments:	
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Leak No.	Location	Nature of Leak	Level
22	Shop Floor	Leak From Jubilee Hose Connection to Air Gun	2

Images of Leak Site



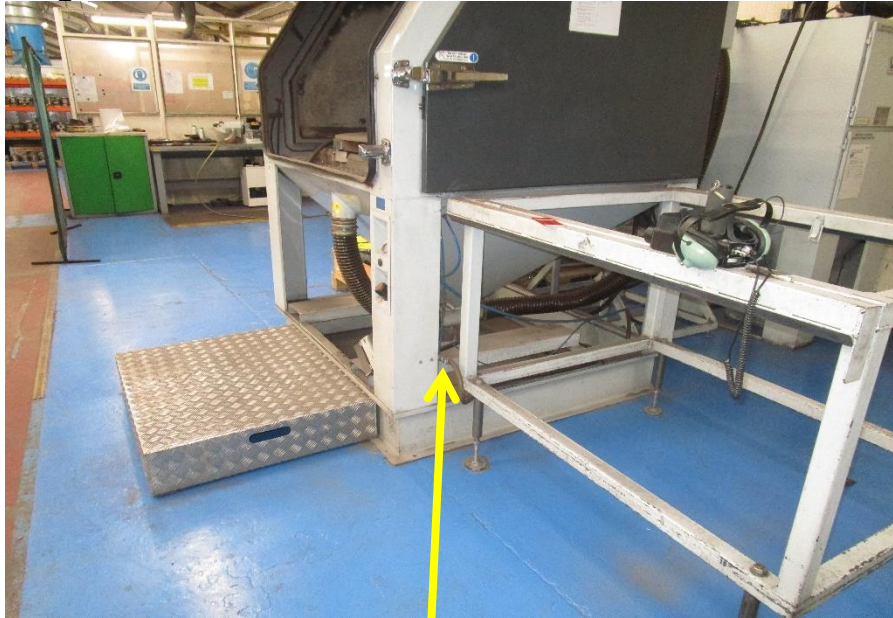
Annual Cost of Leak:	£336
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
23	Shop Floor	Leak From Jubilee Hose Connection to 90 Degree Angle	3

Images of Leak Site



Annual Cost of Leak:	£672
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Repair Completion

Repair Date:		Repaired By:	
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Comments:	
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Leak No.	Location	Nature of Leak	Level
24	Shop Floor	Leak From Quick Release Connection to Air Grinder	3

Images of Leak Site

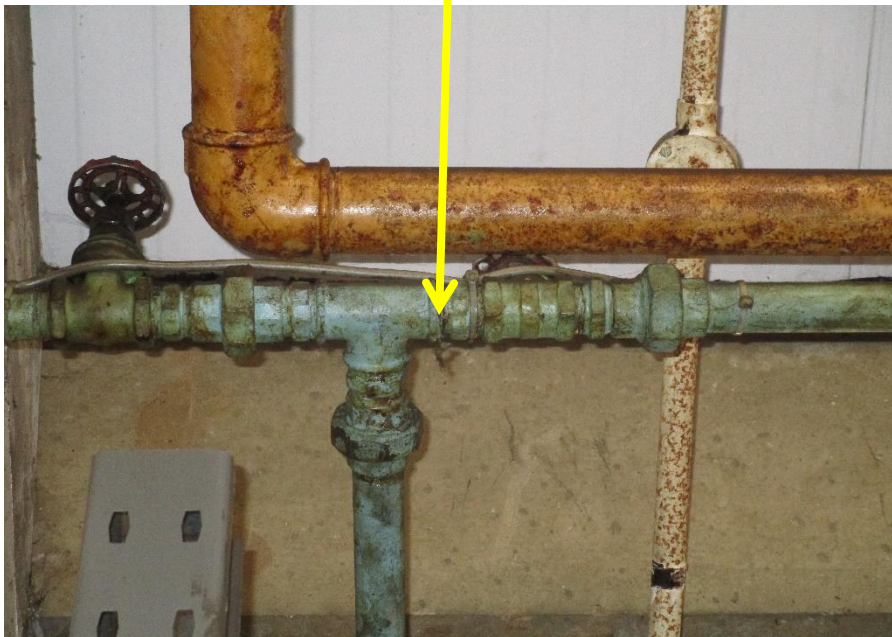


Annual Cost of Leak:	£672
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
25	Shop Floor	Leak From Pipe Work High Level By Machine 2 (No Label Attached)	2

Images of Leak Site


Annual Cost of Leak:	£336
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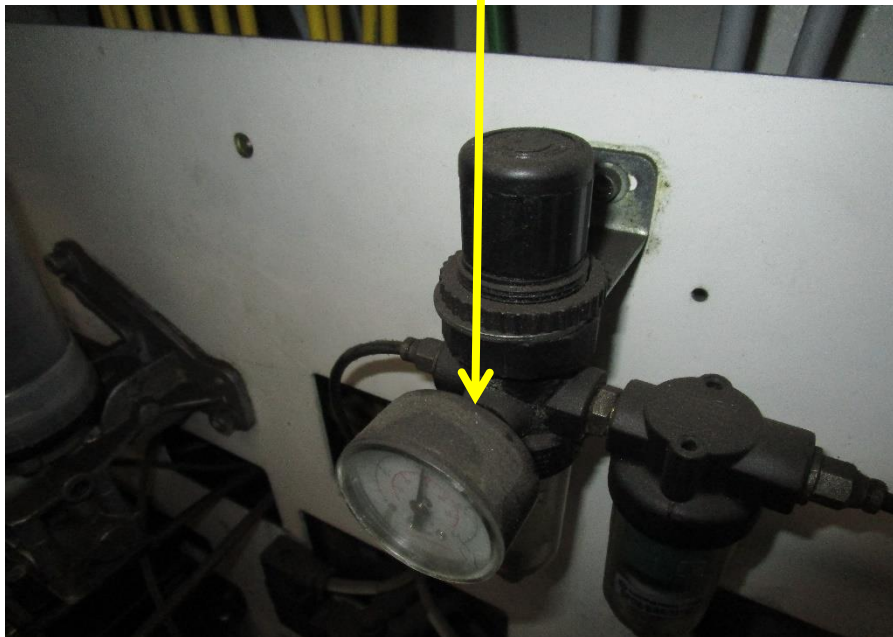
Repair Completion

Repair Date:		Repaired By:	
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Comments:	
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Leak No.	Location	Nature of Leak	Level
26	Shop Floor	Leak From Threaded Filter Connection to Gauge	1

Images of Leak Site



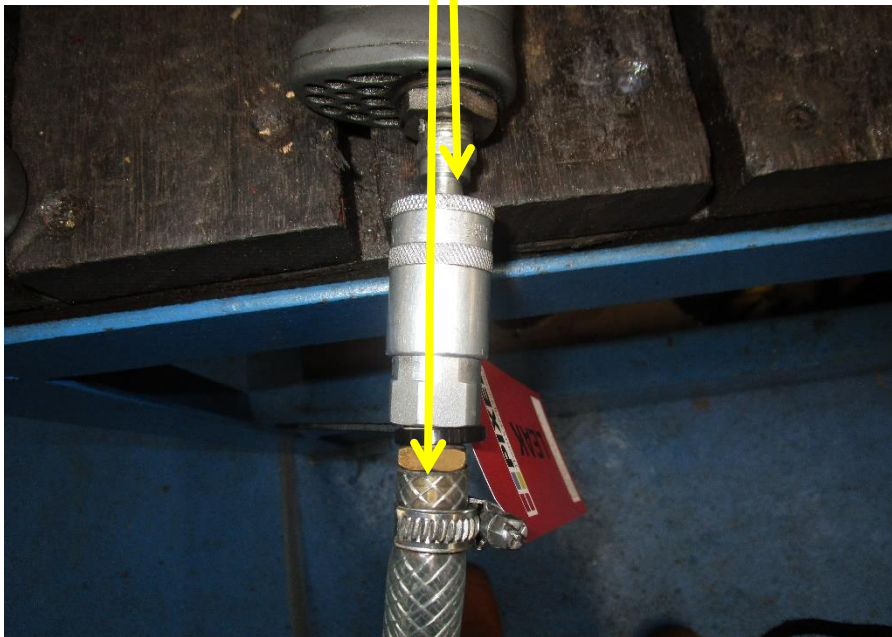
Annual Cost of Leak:	£86
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
27	Shop Floor	Leak From Jubilee Hose Connection & Quick Release Connection to Air Gun	2

Images of Leak Site



Annual Cost of Leak:	£336
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
28	Shop Floor	Leak From Jubilee Hose Connection to Quick Release	2

Images of Leak Site



Annual Cost of Leak:	£336
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
29	Shop Floor	Leak From Jubilee Hose Connection to Air Gun	2

Images of Leak Site



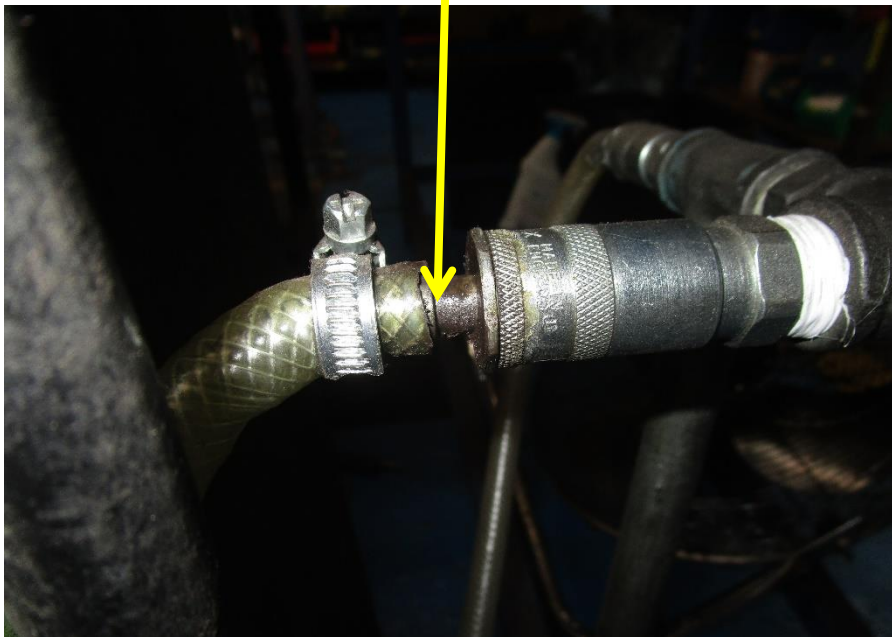
Annual Cost of Leak:	£336
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
30	Shop Floor	Leak From Jubilee Hose Connection to Quick Release	3

Images of Leak Site



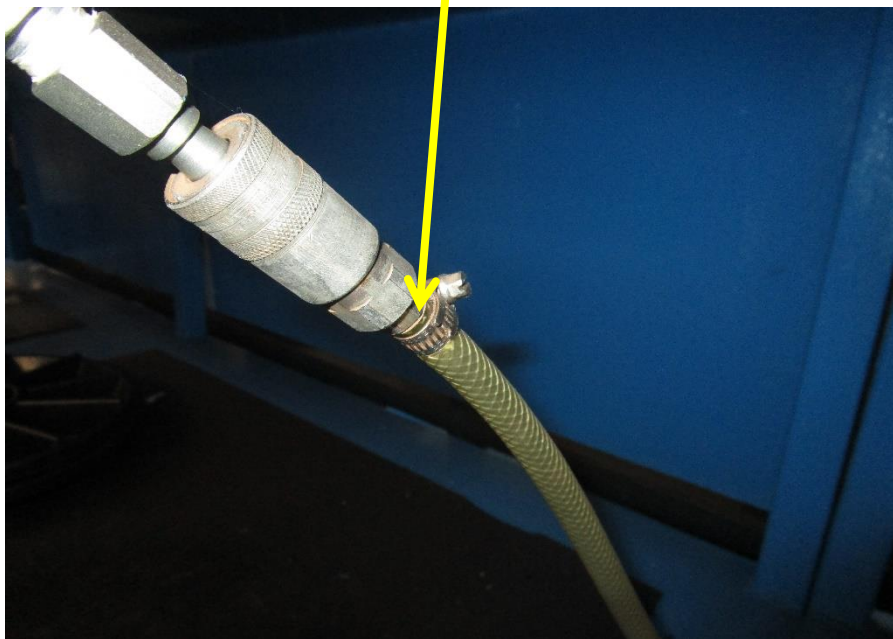
Annual Cost of Leak:	£672
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
31	Shop Floor	Leak From Jubilee Hose Connection to Quick Release	2

Images of Leak Site



Annual Cost of Leak:	£336
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Repair Completion

Repair Date:		Repaired By:	
Comments:			

Leak No.	Location	Nature of Leak	Level
32	Shop Floor	Leak From Jubilee Hose Connection to Tee	2

Images of Leak Site



Annual Cost of Leak:	£336
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Repair Completion

Repair Date:		Repaired By:	
Comments:			