plummer COMPRESSORS

25 YEARS ENGINEERING EXCELLENCE & TRUSTED ADVICE SINCE 1995

AIR LEAK CALCULATION RECORD

A fairly accurate estimate of the volume of leaks in an air system can be made by recording the times a compressor is on load and off load, at a time when there is **no production occurring**.

Given the potential costs of air leaks and the simplicity of the check, we recommend it becomes part of regular "house-keeping" procedures and carried out at least quarterly – if not monthly.

	Example Calculation			Date:			Date:			Date:		
	Elapsed Time	On-load (sec)	Off-load (sec)	Elapsed Time	On-load (sec)	Off-load (sec)	Elapsed Time	On-load (sec)	Off-load (sec)	Elapsed Time	On-load (sec)	Off-load (sec)
On-load	0:00											
Off-load	0:21	21										
On-load	1:00		39									
Off-load	1:19	19										
On-load	1:59		40									
Off-load	2:19	21										
On-load	3:01		42									
Off-load	3:21	20										
On-load	4:02		41									
Off-load	4:22	20										
On-load	5:02		40									
Off-load	5:21	19										
On-load	6:01		40									
Off-load	6:21	20										
On-load	7:00		39									
Off-load	7:19	19										
On-load	7:58		39									
TOTALS	478s	159	317									
%		159/478 =**33%**	317/478 =**67%**									

Example Calculation		**Calculations**	**Calculations**	**Calculations**
Compressor:	(model)			
FAD (m^3/min):	*2.0*			
Specific power* (kW/m^3/min):	**7.0***			
Leak volume (m^3/min):	0.33*2.0= 0.66			
Run hours/ year:	5000			
Power cost ($/kWh):	0.15			
Leak costs (Per year):	7.0*0.66*5000* 0.15= **$3,465**			

* Contact Plummer Compressors for an estimate (Input power kW/FAD)

Did you know?
Many factories can reduce their system pressure by 0.5bar (7psi) with no reduction in performance of the air consumers. This would immediately reduce power consumption by 3% as well as reducing air leaks. Interested? Call us to discuss your situation. (09) 2743550

We provide Ultrasonic Leak Detection surveys – please contact us for details.

PLUMMER COMPRESSORS LTD
11 CROOKS ROAD EAST TAMAKI 2013, PO BOX 259-075 BOTANY 2163, AUCKLAND
PHONE: 09-274 3550 (24 hours) EMAIL: info@plummercompressors.co.nz WEB: www.plummercompressors.co.nz