THE HILL DRY-PAC

What is Dry-Pac?
Dry-Pac is a patented method of extracting moisture from the air passing through hand operated air compressor pumps. We recommend that the Hill Pump is always used with a Dry-Pac.

How does the Dry-Pac work?
As air is drawn into the pump it is forced to pass through a specially selected medium that attracts and removes water molecules from air. The dryer air is then passed through the pump and the second integral micron filter in the normal way. The extraction is a one way process and eventually the medium will become fully saturated and require changing. The Dry-Pac should always be fixed in the vertical position but it can be rotated around the pump and retained by means of the grub screw.

How long does the Dry-Pac medium last?
Our tests show that under average conditions the Dry-Pac medium will be effective for up to four months. In warmer and humid climates, or for users who require optimum quality, we recommend that the medium is changed every 2-3 months. Although the Dry-Pac medium principally works with flowing air, it will continue to extract a small amount of moisture from still air. Therefore we recommend that the medium is also changed if the pump has undergone prolonged periods of storage

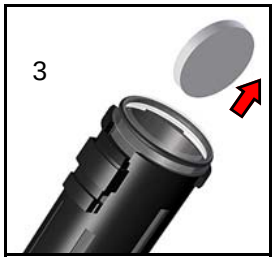
Replacement of the Dry-Pac medium
The only replacement medium we recommend is the Hill medium (product code 062128-56). This has been carefully researched and selected to give optimum performance. Do not attempt to use or mix other absorbent materials such as silica gels or dyed markers. These products have entirely different properties and will impair the correct functioning of the Dry-Pac.

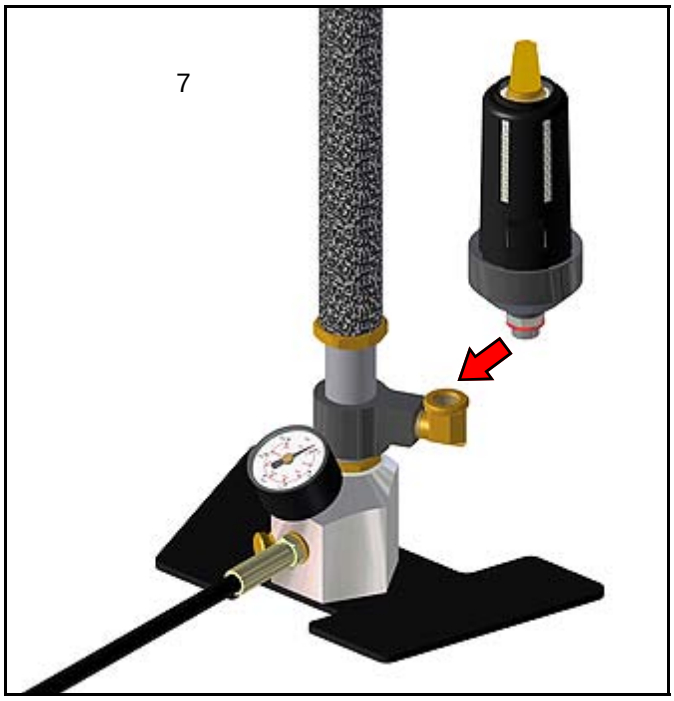
Regeneration
There is currently no method of regenerating the medium in domestic circumstances. The medium should always be replaced with a fresh sachet. **Do not** attempt to heat or microwave the medium.

Environmental
The Dry-Pac medium is an **environmentally safe product**. Being a synthetic copy of a naturally occurring product it will have no detrimental effect on disposal in any normal waste treatment method. It is non toxic and can be handled and disposed of safely. Normal precautions should be taken when handling or storing the medium within the vicinity of children and pets. Although not harmful if swallowed it may cause the symptoms of slight dehydration.

Dry-Pac Medium Storage
The Dry-Pac medium is supplied in vacuum packed sachets with the optimum quantity to refill the Dry-Pac cartridge. Due to the nature of the medium, ambient temperature may cause expansion or contraction of the foil container. This is normal and has no detrimental effect on the life of the medium. Heat may cause the foil to expand like a balloon, cold may cause a “shrink wrap” condition. Providing the foil sachet remains intact the medium will not be impaired under most storage conditions.

DRY-PAC Patented Dry Air Flow System





Ernest H. Hill Ltd
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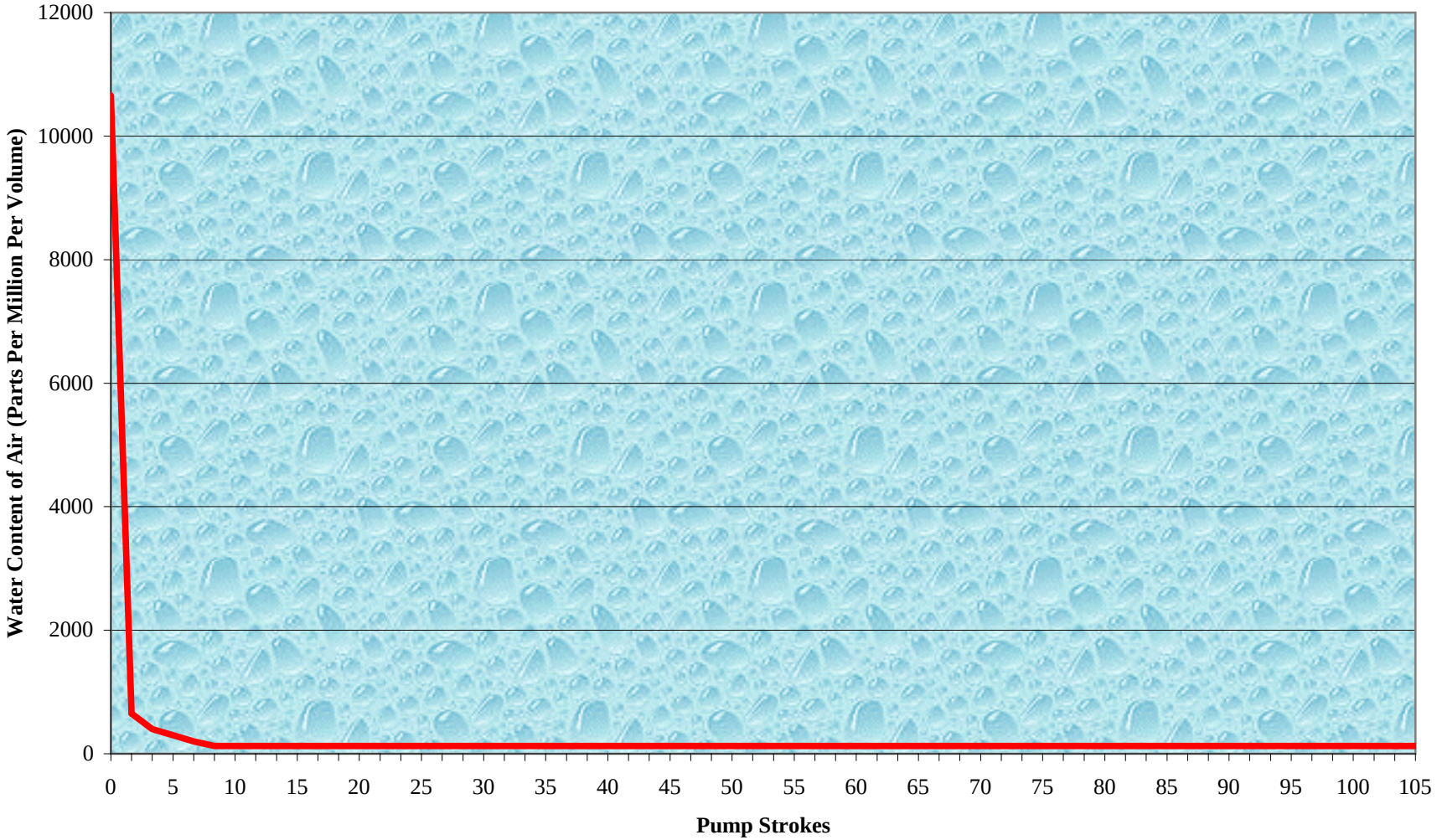
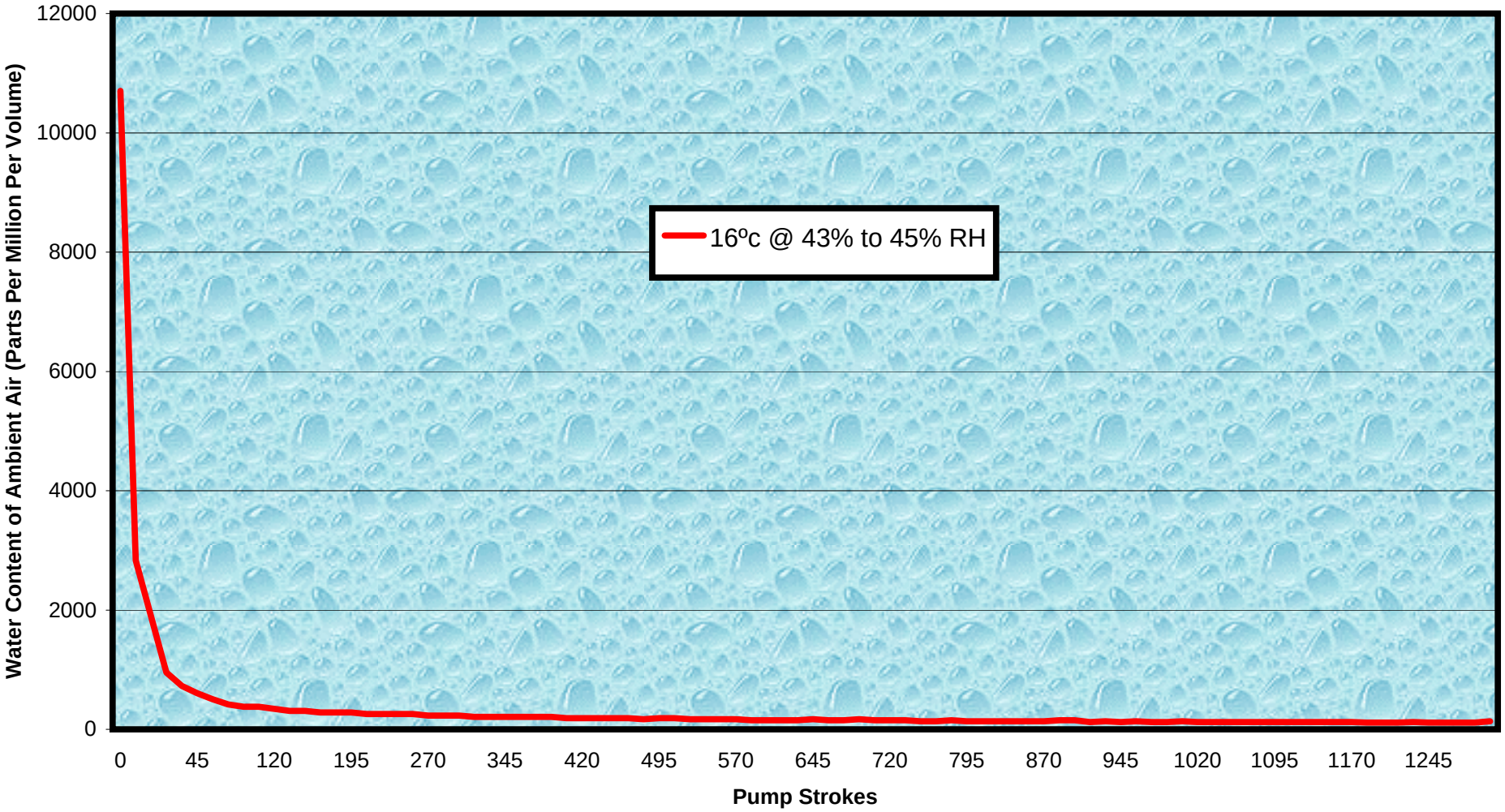
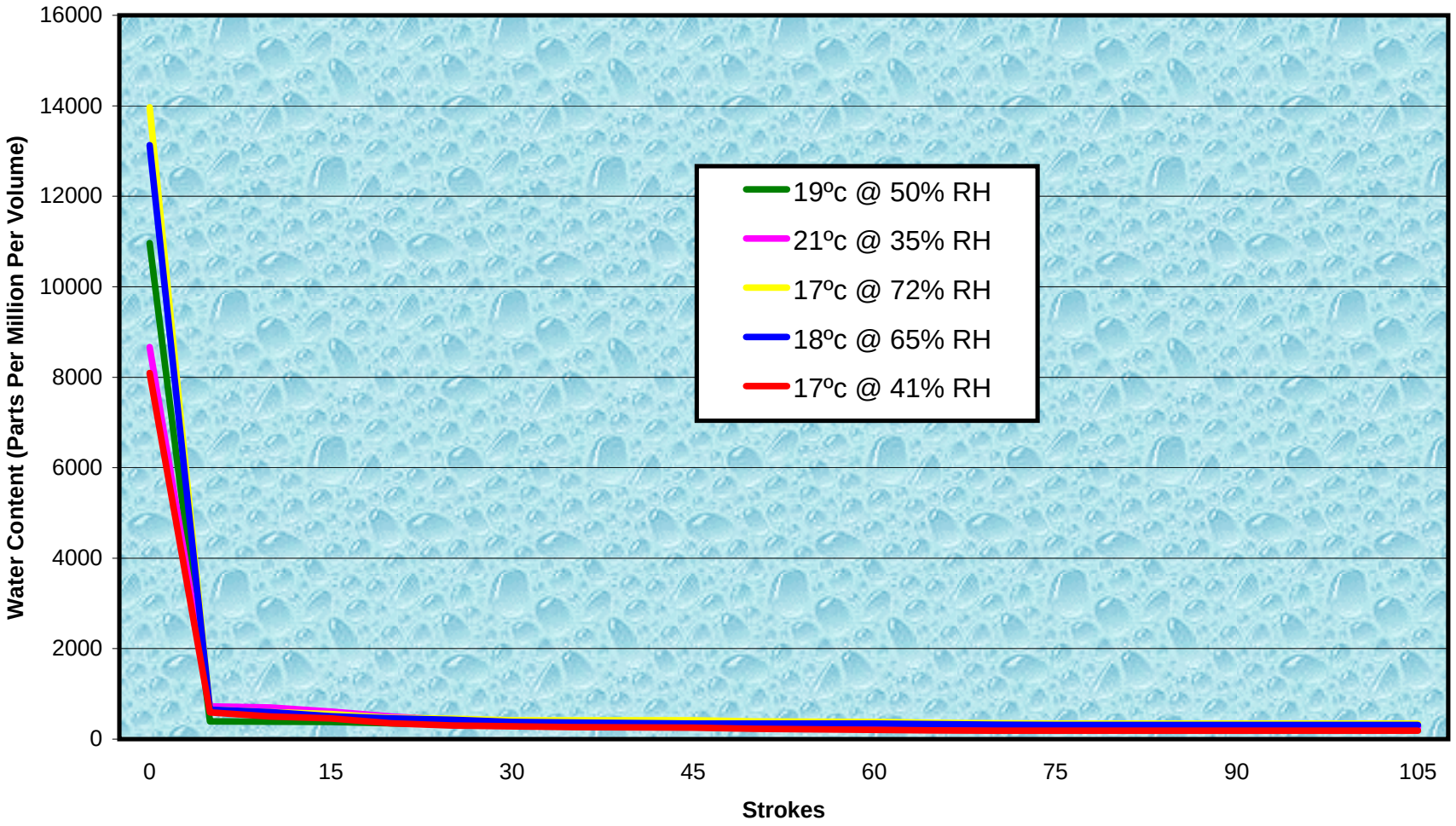
Example Dry Pac Test (23 Degrees Celsius @ 38RH)



Example of Continual Pumping Dry-Pac Test



DRY-PAC TEST EXAMPLE Various Random Time Separated Batches



GUIDE TO THE MOISTURE CONTENT OF AIR

PPMPV (Parts Per Million Per Volume)

Temperature º Celsius	Relative Humidity %										
	30	35	40	45	50	55	60	65	70	75	80
0	1813	2116	2419	2722	3025	3329	3632	3936	4240	4545	4850
5	2590	3023	3456	3890	4324	4759	5194	5628	6065	6500	6936
10	3650	4260	4871	5484	6097	6711	7325	7941	8557	9173	9792
15	5075	5927	6779	7633	8488	9345	10203	11063	11924	12787	13651
20	6974	8146	9320	10498	11678	12861	14046	15235	16426	17620	18816
25	9474	11070	12672	14279	15890	17507	19130	20757	22389	24027	25671
30	12734	14889	17051	19224	21406	23597	25797	28007	30227	32456	34695
35	16949	19830	22727	25641	28571	31518	34483	37464	40463	43478	46512
40	22355	26178	30030	33911	37822	41762	45732	49733	53765	57826	61920
45	29241	34282	39371	44512	49704	54947	60243	65593	70997	76456	81970

FOR ILLUSTRATION PURPOSES ONLY
(based upon DP over Water @ Atmosphere)