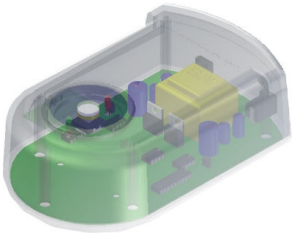
AIRBOX TECHONOLOGY

The AIRBOX air condition control system product provides a solution to the full controlled management of your compressed air cooling systems irrespective of the make, motor size, or type of compressor within your structure and irrespective of the system pressure.

AIRBOX
• TECH

The Problem

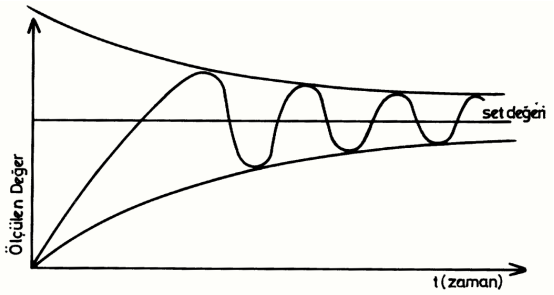


Most industries use compressed air however they do not generally have integrated systems which are designed to not only meet their peak demands but also to accomodate the low demand periods. During the varying demands of most manufacturing days a manufacturers compressed air supply will be wasting energy by over production of air, over pressurisation of air systems and poor controls.

Generally the temperature sensor of air conditioners are under the air filter & air output window. When air circulating in the room ;this sensor can be mistaken generally.

The Fault control of room temperature cause unnesserary compressor starts and stops.When compressor motor starts and stops they spend 5 to 10 times more energy. AIRBOX corrects this inefficiency with advanced PID temperature control algorithms & secondery temperature sensor.

With typically 10% of energy consumption on a site being related directly to the generation of compressed air, this waste is a significant part of manufacturing costs



İn this way pressure is maximized to your needs without excess generation through close control of reservoir pressure virtually eliminating hysterisis. Savings to be gained in this way provide typically 20% - % 45 reduction of running costs.

The close management of pressure reduces dramatically the leakage losses in a system, (typical losses in industry amount to 18%), this figure can be reduced to provide savings of up to 5% of running costs.

Charge rate management to ensure that only that air flow that is required from the reservoir is being provided by the compressors to the reservoir. Careful management of the systems in this area adds a further 3 - 5% savings.

Best compressor utilization ensures that only that compressor or compressors that are required to meet demand are running at any given time.

The system is fully dynamic and adjusts according to the conditions at whatever time. In conjunction with use of aircondition Energy Control Systems so as to ensure minimal "over-run and run-on times" as well as providing on and off load motor energy consumption savings overall system **savings of 20-35% are typically achieved.**

In addition, the systems have been developed with knowledge of the climatic problems associated with operations in a tropical or sub-tropical environment so offer rugged protection against high humidity and wide ranging temperatures.

Motors can consume electricity at more than ten times their capital cost each year. By giving you control over your motor, AIRBOX can save between 15% and 40% of your electricity costs; without reducing speed of fans, without any loss of power and without detriment to your airconditoner.

Features

The AIRBOX is a high specification digital airconditioner energy control avaible in models suitable for airconditioners up to 48.000 BTU

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-FULL AUTOMATIC OPERATION.

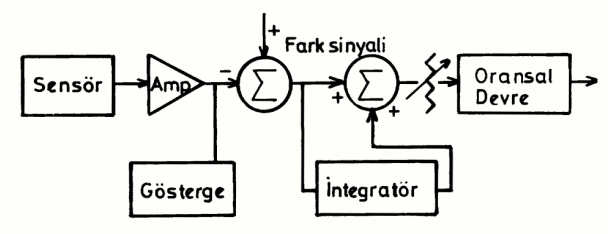
-SIMPLE TO INSTALL.

-RUGGED HOUSING ,IP43 NEMA1. ABS plastic box

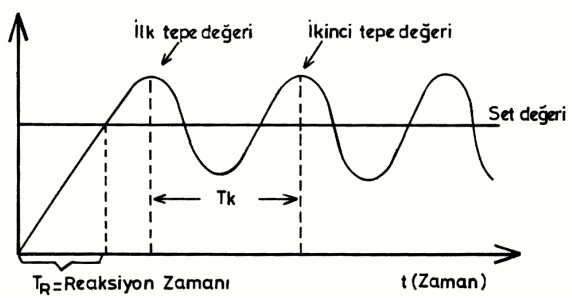
-Prolong life span of devices.

-Advanced temperature P.I.D(Proportional integral deriative) algorithms.

AIRBOX WORKING ALGORITHM

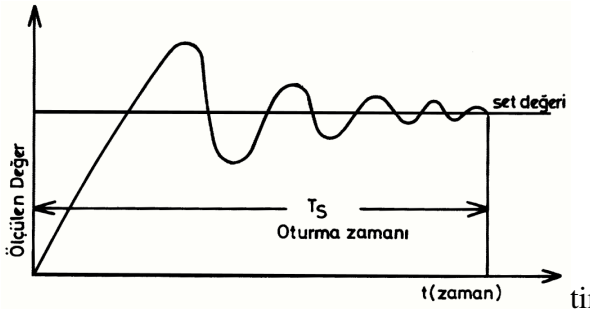


Compressor motor reaction to temperature **Without airbox device**



time

Compressor motor reaction to temperature **Without airbox device**



time

Compressor motor Reaction graph

AIRBOX CİHAZI TASARRUF TESTİ

En az 1günlük yapılarak ; 1 gün içerisinde klimanın harcadığı normal enerji tespit edilir.

Airbox takıldıktan sonra 1 gün süreli yeni bir enerji harcaması ölçümü yapılır. Sağlanan tasarruf gözlemlenir.

Not: Airbox cihazının montajı ve ayarları kullanma kılavuzunda belirtildiği gibi yapılmalı ve test odasının kapı ve pencerelerinin kapalı olmasına dikkat edilmelidir.

Energy saving test…
Note: We propose minumum 1 day test for observation maximum energy saving..
(it's also possible to test for 2-4 hours)

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