

# C & R TESTING LTD

Aydın Trafo Inverter (VSD) Compressor; Thanks to its advantages listed below, the inverter unit (Variable Speed Driver) fitted to the screw compressor which is to be used in plants that have variable air requirements provides up to 35% energy saving and improves the compressor's service life.

## Soft Start and Longevity

Excessive current drawn during the star-delta of the electrical motor (starting current) and the mechanic load sare eliminated thanks to the soft start and stop features of the inverter. As a result, longevity of the compressor equipment improves and maintenance costs decrease.



## Economical Run and Constant Output Pressure



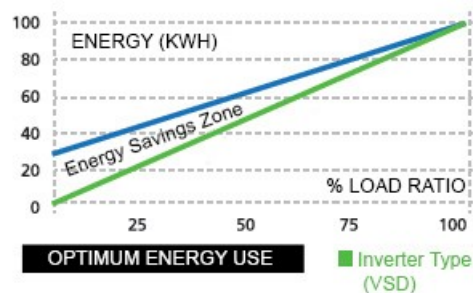
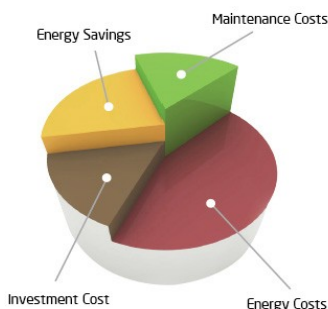
Standard air screw compressors switch to idle when the targeted pressure is achieved and switch to load when the specific low pressure is reached. When the compressor switches to idle, the electrical motor keeps working at its constant speed and does not produce compressed air hence the compressor consumes 30% power of its load run. Motor of an inverter type compressor however, works at an optimum speed (rpm) to meet the plant's real time air needs and provides great deal of energy savings as well as producing targeted constant output air pressure. Moreover, in standard screw compressors, mechanical load variations occur during the shifts between load and idling, and this causes the compressor equipment to fatigue and compressor on struction to wear off in the long run.

## Low Reactive Power Consume

In inverter type compressors, the reactive power to be compensated is eliminated. The costs paid for there active power are reduced. Constant Oil Temperature In contrast to the standard screw compressors, oil is not exposed to sudden heating and cooling which on the other hand result from working at low and high pressures. This decreases the thermal dilation loads for compressor circuit elements, especially bearings contacting with oil.

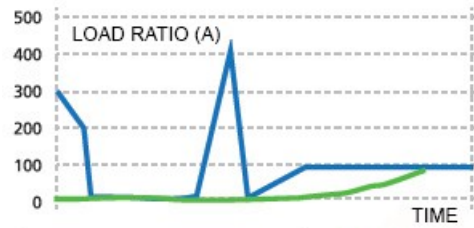
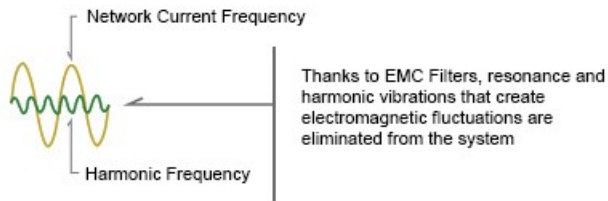
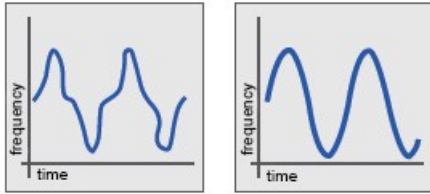
## Harmonic Filter and Shock Coil Usage

A harmonic filter and a shock coil are used in AYDIN TRAF0 inverter compressor systems, and this protects both the inverter itself and the electrical motor against possible harmonics and voltage unbalances.



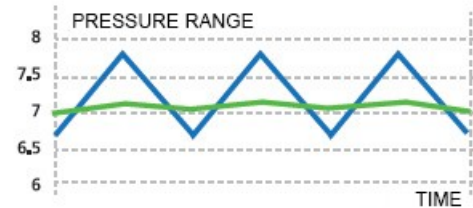
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ENERGY SAVINGS ZONE

Inverter Type (VSD)



CONSTANT PRESSURE ADVANTAGE

İnvertörlü (VSD)

## VSD Air screw compressors



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Type	Capacity (m <sup>3</sup> /dak)			Motor Power	Volt Phase	Noise Level (dB)	Air Dish. Dia. (Ø")
ATV-30A	5,47	4,20	3,45	30	380/3	73	1 1/2"
ATV-37A	6,29	5,40	4,10	37	380/3	74	1 1/2"
ATV-45A	7,35	7,13	5,33	45	380/3	75	1 1/2"
ATV-55A	10,00	7,80	7,05	55	380/3	76	2"
ATV-75A	12,20	11,05	7,60	75	380/3	77	2"
ATV-90A	16,94	12,00	10,90	90	380/3	78	2"
ATV-110A	17,50	16,50	13,48	110	380/3	79	2"
ATV-132A	20,50	19,72	16,50	132	380/3	80	2"
ATV-160A	24,21	22,17	20,00	160	380/3	82	2 1/2"
ATV-200A	33,00	29,86	21,84	200	380/3	83	2 1/2"
ATV-250A	44,50	37,61	30,57	250	380/3	85	3"

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