



# Formula and Genesis

Excellence for variable speed  
drive compressors



# The new Formula and Genesis series

## Choosing the right compressor for your business is crucial.

Designed to deliver cost and energy efficiency, performance and reliability, ABAC's new Formula and Genesis series of variable speed drive (VSD) compressors offer the ultimate solution.

As one of the market leaders in VSD technology, ABAC's latest range of oil-injected screw compressors features an innovative direct drive transmission, which automatically adjusts the speed of the motor in response to demand for compressed air.

This results in average energy savings of up to 35% as well as an average reduction of up to 25% in the compressor's total lifecycle cost.



## Industry leading VSD technology

### High performance

Direct Driven transmission. Free Air Delivery (FAD) improved by 9% on average compared to the previous range.

### Energy efficient

VSD compressors deliver average savings of up to 35% and are 3% more efficient than belt driven transmissions. IE3 motors come as standard for VSD units.

### Reliable

ABAC's premium quality, heavy duty motors with IP54 and IP55 protection are suitable for operation in environments up to 46 degrees centigrade.

### Easy serviceability

All service components are located at the front of the machine for easy access, providing simple maintenance or replacement of the coolers, separator and filters.

### Intelligent controller

ABAC's unique Airlogic in-built control unit is specially programmed for energy saving performance.

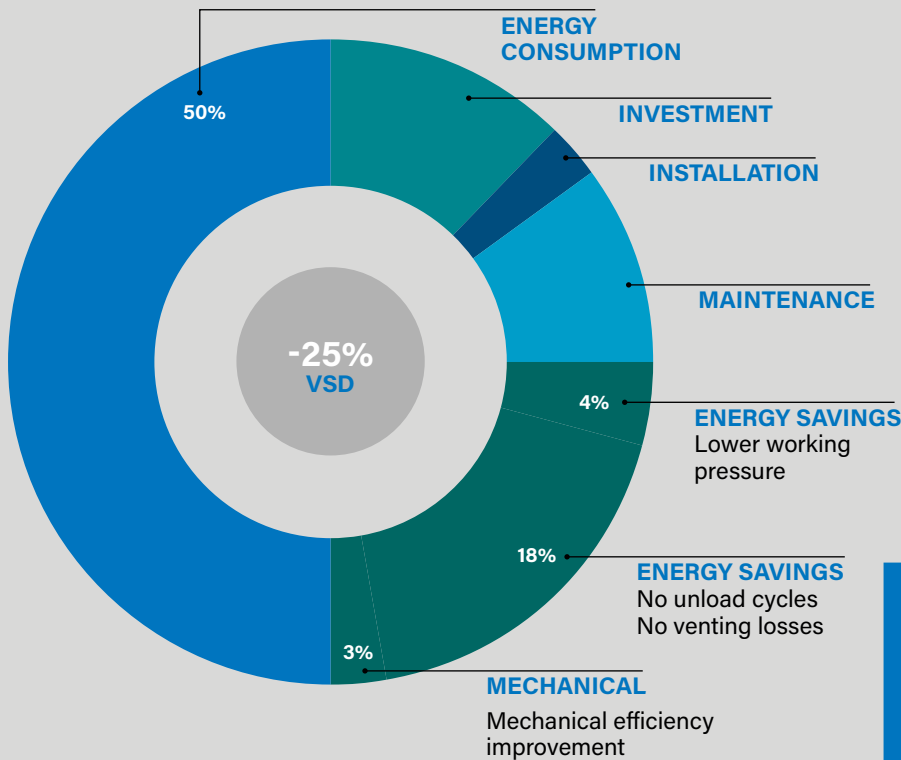
### Minimal noise

With noise levels of 64-72 dB(A), the compressors can operate at a lower pressure setting, reducing costs and eliminating pressure drops.

# Key benefits of VSD compressors

The innovative variable speed drive (VSD) technology in the new Formula and Genesis compressor range delivers many advantages over belt driven units. As the motor speed is regulated to meet flow demand, average energy savings of up to 35% are possible, which enables your business to reduce cost and its carbon footprint.

- A VSD compressor can start/stop under full system pressure with no need to unload.
- No loss of idling time or blow-off losses under normal operation
- Lower system pressure means a quicker and more cost-efficient start up



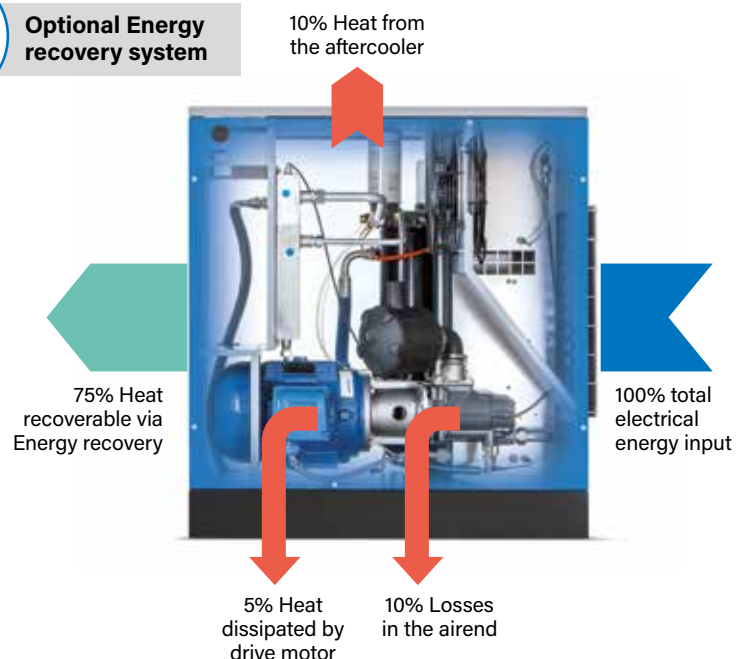
A new air end and VSD transmission delivers energy savings of up to 35% and a reduction in total cost of ownership of up to 25% over 5 years.

## Maximum energy saving

Energy is by far the biggest cost of compressor ownership, which is why ABAC is continuously striving to save its customers money. Designed to minimise energy consumption and maximise energy saving, ABAC's energy recovery system can have a significant positive impact on your bottom line and environmental footprint, with energy savings of up to 75%.

**-75%**

Optional Energy recovery system

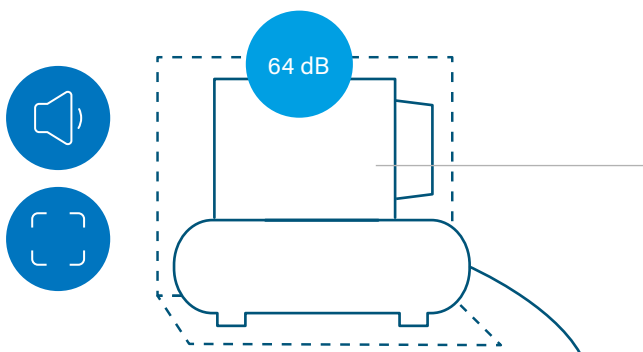




## Highly Efficient Transmission

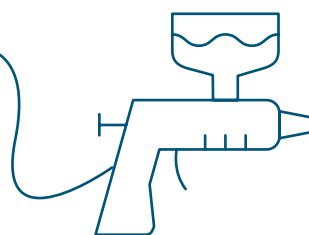
The new Direct Driven IVR version grants very low specific energy requirements and one of the widest turndowns of its category.

It provides up to 3% more efficiency than the Belt Driven transmission used in the last generation.



## The compact all-in-one compressed air system...

ABAC compressors are built to save space. And if you choose a tank-mounted model, you get an all-in-one compressed air system with the smallest footprint. For maximum air quality, a refrigerant dryer can be fully integrated.



## ... That can be installed at the point of use

Thanks to their quiet operation and integrated design, our small rotary screw units can be installed on your production floor. That means you don't need a separate compressor room and can save on floor space, piping, and installation costs. You can reduce your investment and operational costs as well, as you can operate the machine at a lower pressure setting and eliminate pressure drops throughout your piping network.



Save on investment costs

- ✓ Minimal pressure drops
- ✓ Higher FAD



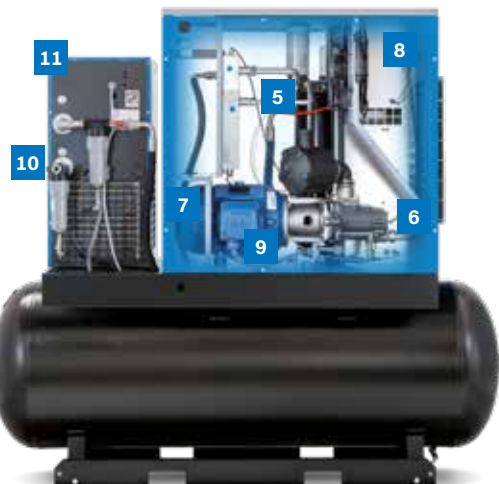
Save on operational costs

## Machine Layout



FORMULA EI 18 12,5 400/50 CE

- 1 Cooling air filter
- 2 Emergency stop
- 3 Airlogic
- 4 Converter
- 5 Air filter
- 6 Air end
- 7 Motor
- 8 Fan Motor
- 9 Direct transmission
- 10 Coalescent Filters
- 11 Dryer



GENESIS EI 11 13 400/50 500CE

# Options



- |          |                               |           |                                    |
|----------|-------------------------------|-----------|------------------------------------|
| <b>1</b> | <b>Energy recovery</b>        | <b>6</b>  | <b>Heavy duty air inlet filter</b> |
| <b>2</b> | <b>Water separation drain</b> | <b>7</b>  | <b>Line filter G</b>               |
| <b>3</b> | <b>Canopy heater</b>          | <b>8</b>  | <b>Silencing baffle</b>            |
| <b>4</b> | <b>Electronic water drain</b> | <b>9</b>  | <b>Food grade oil</b>              |
| <b>5</b> | <b>8000H Oil</b>              | <b>10</b> | <b>Optional econrol 6I</b>         |

## Technical specifications

Model	Motor power		Min. working pressure Bar	Reference working pressure Bar	Free Air Delivery @reference conditions*						Noise level** db(A)	Weight (kg)
	kW	HP			7 bar		9.5 bar		12.5 bar			
					l/min	CFM	l/min	CFM	l/min	CFM		
Formula I	7.5	10	4	13	1225	43.3	1058	37.4	829	29.3	64	227
	11	15	4	13	1823	64.4	1470	51.9	1205	42.6	64	243
	15	20	4	13	2217	78.3	1858	65.6	1394	49.2	65	246
	15X	20	4	13	2852	100.7	2434	86.0	2064	72.9	68	330
	18.5	25	4	13	3334	117.7	2875	101.5	2270	80.2	70	355
	22	30	4	13	3827	135.2	3246	114.6	2934	103.6	71	370
Formula IE	26	35	4	13	4157	146.8	3740	132.1	3263	115.2	72	385
	15X	20	4	13	2852	100.7	2434	86.0	2064	72.9	68	375
	18.5	25	4	13	3334	117.7	2875	101.5	2270	80.2	70	405
	22	30	4	13	3827	135.2	3246	114.6	2934	103.6	71	420
	26	35	4	13	4157	146.8	3740	132.1	3263	115.2	72	435

Model	Motor power		Min. working pressure Bar	Reference working pressure Bar	Free Air Delivery @reference conditions*						Noise level** db(A)	Weight (kg)	
	kW	HP			7 bar		9.5 bar		12.5 bar			270L	500L
					l/min	CFM	l/min	CFM	l/min	CFM			
Genesis I	7.5	10	4	13	1225	43.3	1058	37.4	829	29.3	64	319	393
	11	15	4	13	1823	64.4	1470	51.9	1205	42.6	64	335	409
	15	20	4	13	2217	78.3	1858	65.6	1394	49.2	65	338	412
Genesis IE	7.5	10	4	13	1225	43.3	1058	37.4	829	29.3	64	353	427
	11	15	4	13	1823	64.4	1470	51.9	1205	42.6	64	371	445
	15	20	4	13	2217	78.3	1858	65.6	1394	49.2	65	445	465
	15X	20	4	13	2852	100.7	2434	86.0	2064	72.9	68	-	550
	18.5	25	4	13	3334	117.7	2875	101.5	2270	80.2	70	-	580
	22	30	4	13	3827	135.2	3246	114.6	2934	103.6	71	-	595
	26	35	4	13	4157	146.8	3740	132.1	3263	115.2	72	-	610

\* Unit performance measured according to ISO1217, Annex C, latest edition

\*\* Noise level measured according to ISO2151 2004.

### Dimensions (mm)

		7.5-15kW			15X-26kW		
		Length	Width	Height	Length	Width	Height
Formula I	FM	995	655	1045	1200	835	1220
Formula IE	FM+Dryer	-	-	-	1450	835	1220
Genesis I	TM 270L	1535	655	1535	-	-	-
	TM 500L	1935	655	1665	-	-	-
Genesis IE	TM 270L + Dryer	1535	655	1550	-	-	-
	TM 500L + Dryer	1935	655	1680	1940	835	1835







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