



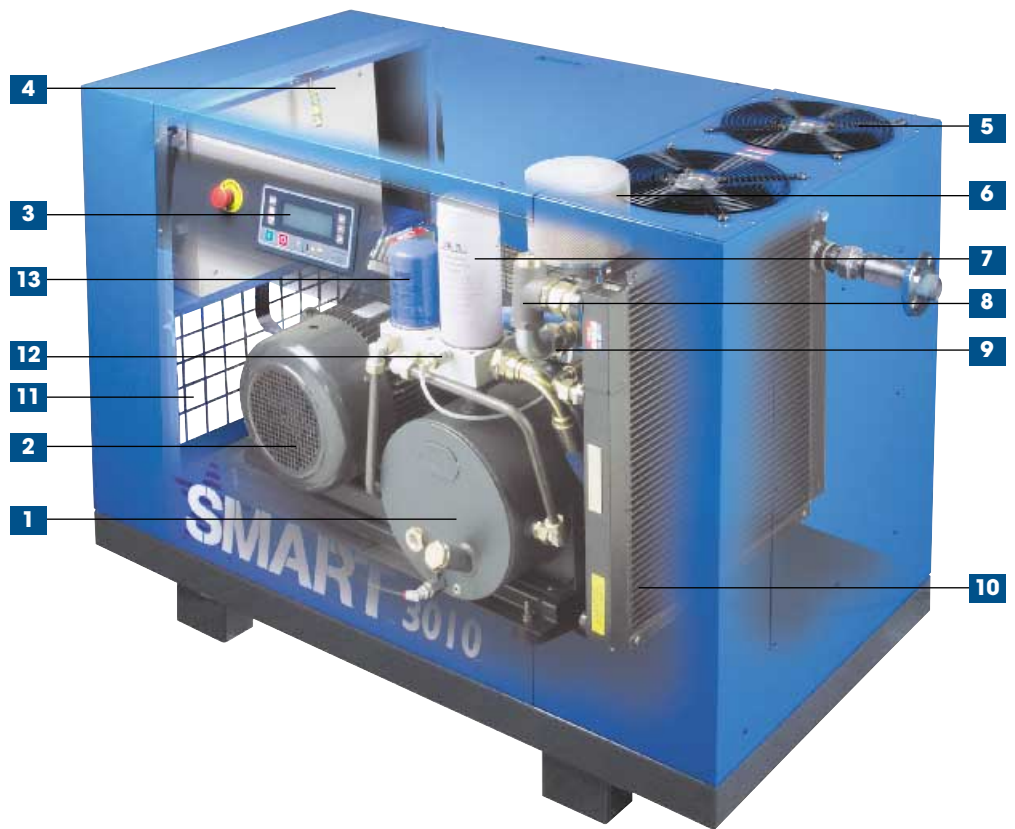
# SMART

Rotary screw air compressors

Hp 7,5 - 10 - 15 - 20 - 25 - 30

# SMART

- 1 Encapsulated air end type BA51 I/BA69 I
- 2 Electric motor (IP 55)
- 3 "MC 2" controller
- 4 Star/delta starter in an IP 44 insulated cabinet
- 5 Thermostatically controlled fan
- 6 Intake filter
- 7 Oil separator filter
- 8 Minimum pressure and non-return valve
- 9 Intake valve
- 10 Air/oil cooler
- 11 Prefilter panel
- 12 Lubricant scavenge sight glass
- 13 Oil filter



**Energy saving**

**Simple design**

**Quiet operation**

**Better air quality**

**Lower maintenance requirement**

# ABAC rotary screw compressor air end

The screw compressor air end of the SMART series is designed and built exclusively at the ABAC factories, certified ISO 9001.

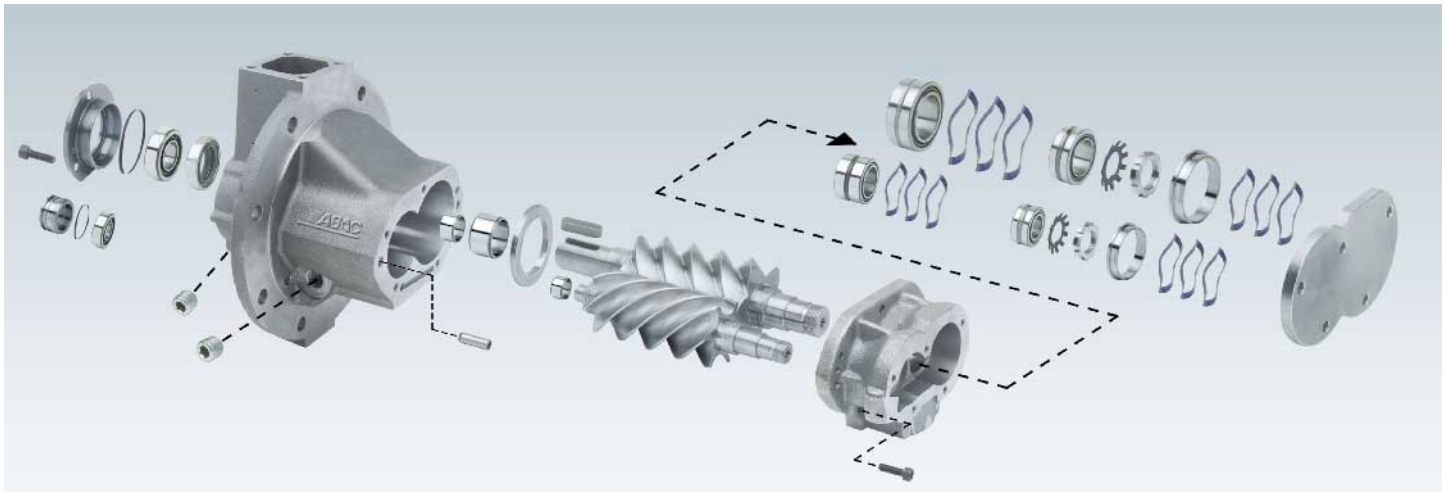
Throughout the manufacturing process the highest quality standards are strictly maintained.

The factors that determine the very high reliability of this compressor air end are:

- The highly developed and patented "VT" rotor profile with precision ground 5/6 lobe configuration that provides higher compressed air output with lower power consumption;

- Fitted with oversized high precision bearings;
- Compensation springs;
- Special channels machined into the rotor offering improved lubrication and longer service life to the air end;
- Toothed safety washer and special locking nut for improved reliability.

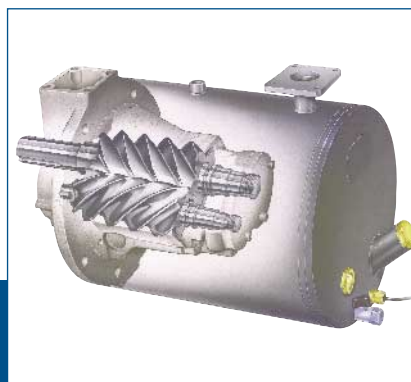
## PATENTED ABAC DESIGN



### "MC2" CONTROLLER

Featuring a backlit display with four lines of twenty digits each allowing extended messages, 5 languages, special functions and/or emergency signaling leds, the MC2 controller also features:

- Possibility to expand the hardware.
- Possibility to interface with other compressors, multicontrol boards for sequencing compressors, modems, PC etc.
- Daily and/or weekly operation programming up to 4 compressors.
- Possibility of "Remote Control" of the compressor (by cable, by modem) allowing the unit to remotely start and stop.
- The "Autorestart" function, allows automatic start-up of the compressor after an eventual power cut off.
- Programmed routine maintenance.
- Diagnostic functions at different levels: Fault log.  
Rotation direction test for main motor and fan.



### ENCAPSULATED AIR END

Each air end in the SMART range has been designed so that they can be configured within an encapsulated arrangement, enclosed by a separator vessel which also accommodates the lubricant storage and the air/oil separation system.

Why an encapsulated air end?

- Due to the omission of the flexible tube normally fitted from the air end to the separator, increased output and improved reliability is achieved.
- Quiet operation.
- More compact.
- Fewer moving parts for enhanced reliability and less maintenance.



### OIL FILTRATION

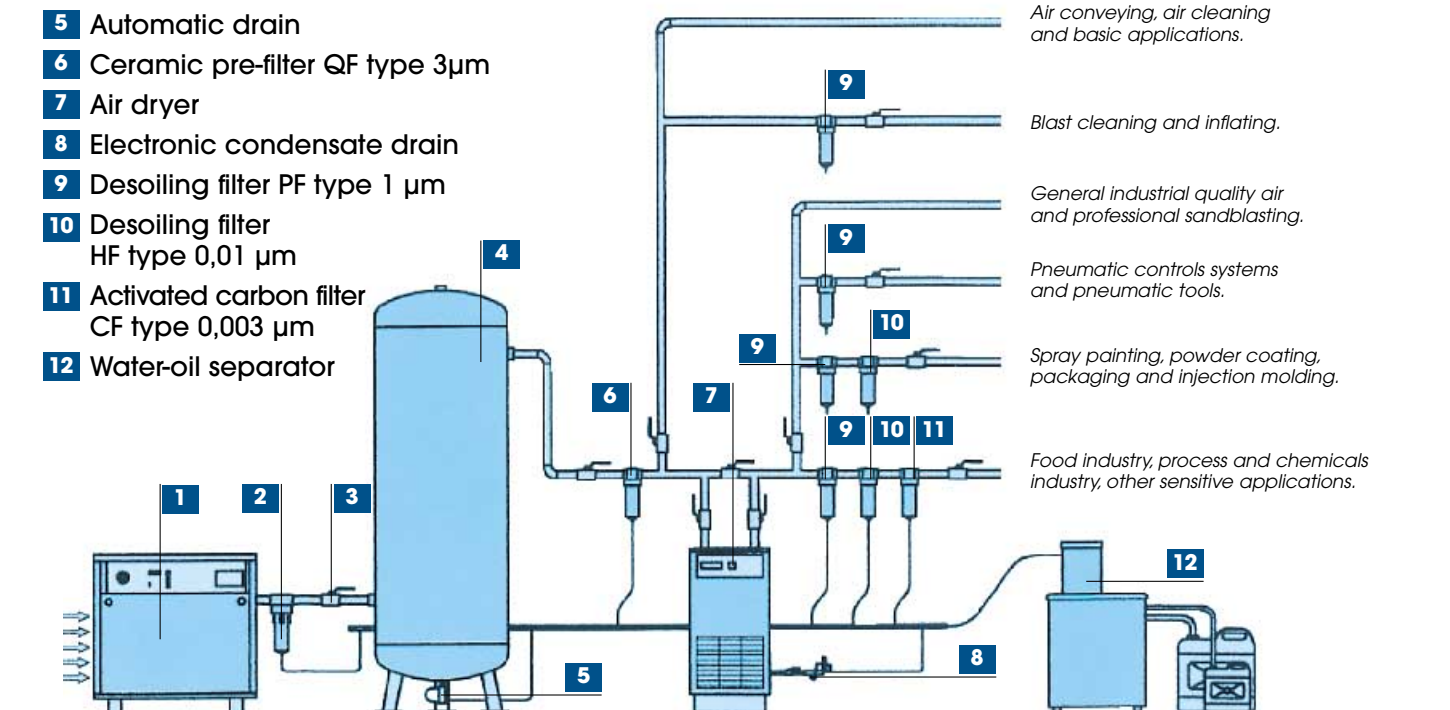
Providing high quality compressed air in respect of environmental objectives was considered most important by ABAC, when developing the SMART series air compressor.

Thanks to a highly developed separation process within the vessel that forms the encapsulated arrangement, along with the high efficiency air/oil separator cartridge, very clean compressed air is provided. Residual oil content within the delivered compressed air is less than 3 mg/m<sup>3</sup>.

# The ideal compressed air installation to suit various industrial requirements

- 1 Air compressor
- 2 Cyclonic condensate separator
- 3 Isolating valve
- 4 Air receiver
- 5 Automatic drain
- 6 Ceramic pre-filter QF type 3µm
- 7 Air dryer
- 8 Electronic condensate drain
- 9 Desoiling filter PF type 1 µm
- 10 Desoiling filter HF type 0,01 µm
- 11 Activated carbon filter CF type 0,003 µm
- 12 Water-oil separator

## Appropriate installation



### FUNCTIONAL & ROBUST

The encapsulated air end and the electric motor are mounted upon a robust steel chassis. The components are assembled horizontally which improves accessibility considerably and therefore reduces maintenance times. The efficient and reliable power transmission is achieved via trapezoidal belts. The pulleys used feature the taper lock bush arrangement, which are easily changed and therefore the customers specific pressure requirements can be matched with ease.



### ACCESSIBILITY

As well as achieving maximum reliability the SMART range has been designed with ease of access to all maintenance components in mind. This enables servicing to be carried out more efficiently with less down time.



### INTAKE AIR

All of the compressors in the SMART range are supplied as standard with a cabinet pre-filter panel that is easily cleaned or replaced during maintenance. The incoming air is filtered by this means, preventing the ingress of dirt onto internal components, reducing wear, improving reliability and preventing the premature blocking of the coolers. In addition the use of a high efficiency intake filter provide very clean air into the compressor element increasing the service life of the air end providing optimum durability and lower running costs.

# SMART Technical data

Model	Working pressure		Free air delivered *		Motor		Air-end type	Noise level dB(A)**	Dimensions mm length. x width. x height.	Weight Kg
	bar	PSI	m <sup>3</sup> min	cfm	kw	hp				
SMART 0708	8	116	0,82	28,95	5,5	7,5	BA 51/I	69	980 x 700 x 805	220
SMART 0710	10	145	0,73	25,78						
SMART 0713	13	188	0,59	20,83						
SMART 0715	15	217	0,45	15,89						
SMART 1008	8	116	1,24	43,78	7,5	10	BA 51/I	70	980 x 700 x 805	230
SMART 1010	10	145	1,04	36,72						
SMART 1013	13	188	0,85	30,01						
SMART 1015	15	217	0,67	23,66						
SMART 1508	8	116	1,67	58,97	11	15	BA 51/I	70	980 x 700 x 805	240
SMART 1510	10	145	1,42	50,14						
SMART 1513	13	188	1,19	42,02						
SMART 1515	15	217	1,03	36,37						
SMART 2008	8	116	2,01	70,97	15	20	BA 51/I	71	980 x 700 x 805	250
SMART 2010	10	145	1,83	64,62						
SMART 2013	13	188	1,52	53,67						
SMART 2015	15	217	1,36	48,02						
SMART 2108	8	116	2,32	81,92	15	20	BA 69/I	70	1450 x 800 x 1080	400
SMART 2110	10	145	2,05	72,39						
SMART 2113	13	188	1,68	59,32						
SMART 2508	8	116	2,89	102,05	18,5	25	BA 69/I	71	1450 x 800 x 1080	410
SMART 2510	10	145	2,58	91,10						
SMART 2513	13	188	2,15	75,92						
SMART 3008	8	116	3,32	117,23	22	30	BA 69/I	71	1450 x 800 x 1080	420
SMART 3010	10	145	3,00	105,93						
SMART 3013	13	188	2,65	93,57						

\* Output measured in accordance with ISO 1217  
 \*\* +/- 3 dB(A) according to ISO3744

WORKING CONDITIONS:  
 -Intake air pressure 1 bar  
 -Air temperature at intake 20°C

Technical specifications may vary without notice.

## Why choose an ABAC rotary screw air compressor?



**Because** the ABAC group is a world leader in the manufacture of air compressors satisfying the requirements of all users of compressed air and with a fine history dating back to 1923. The ABAC group employs 1000 people, producing over 1 million air compressor per year at 7 factories situated in three continents. ABAC products are distributed to all 5 continents and to 123 countries.

**Because** the ABAC group is proud of its reputation for absolute customer focus. ABAC although one of the fastest growing companies in the sector, continues to excel in terms of innovative product design, high quality and complete customer satisfaction.

**Because** ABAC although a large multi national company, maintain a high level of enthusiasm and dedication from everyone within the company, this ensures that we are not merely a supplier to our customers, but a genuine and committed partner.



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## CUSTOMER SERVICE

A full product support package is available to all of our customers throughout the world. Qualified technical advice and support is provided in strategic locations and in all major countries. Advice on installation, selection, additional equipment, maintenance management and environmental issues is available on request.

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ABAC air compressors are manufactured in compliance with:  
98/37 CE machinery Directive;  
87/404 CE simple pressure vessels Directive;  
73/23 CE low voltage Directive;  
89/336 CE for electromagnetic compatibility;  
2000/14 CE for noise level.



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