

perfect  
filtration

**disan**<sup>®</sup>  
Central Vacuum Systems



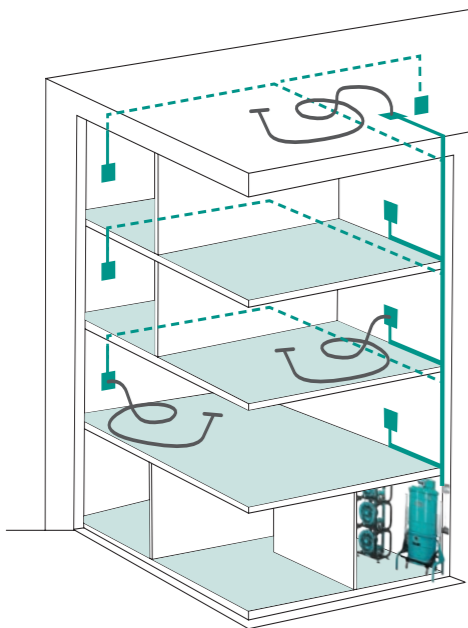
**CENTRALI UNITS**  
**Three-phase range for professional applications**  
**MODULAR AND WITH ELECTRONIC CONTROL**



• **DISCOVER THE BEST TECHNOLOGY FOR A HEALTHY ENVIRONMENT**



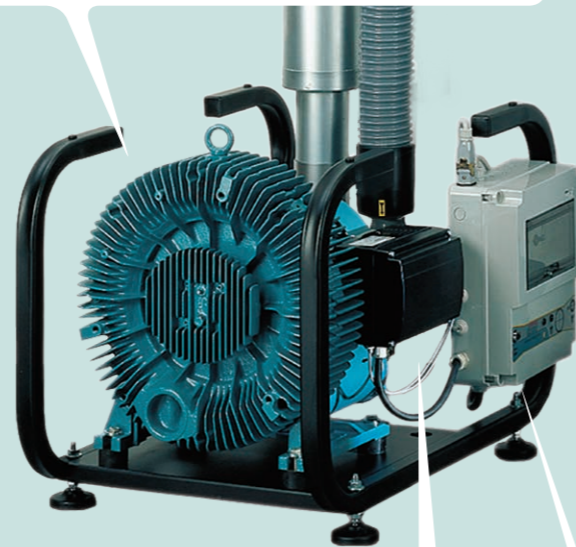
DISAN introduced in 1997 the first vacuum motors coupled with an electronic frequency control (inverter technology). DISAN confirms this innovative technology has significant potential for applications for facility management.



DISAN is a company considered among the best specialists in the professional central vacuum systems worldwide. For more than 15 years that DISAN has developed, manufactured and traded successfully a wide range of solutions satisfying the requirements from the small apartment for domestic use to commercial use in large hotels. More than 1,000 references where large three phase DISAN professional systems are installed with a detailed technical offer and specifications providing long term economical benefits.

Each system component has been analysed in order to give the product the best characteristics by a technical point of view. DISAN systems provide optimum reliability for the best long term system performance.

SIEMENS induction turbines have neither ports in connection nor transmissions. The motors involved are three-phase induction with side-channel blowing engine. The average rotation speed is 2,850 rpm (revolutions per minute), in contrast to 20,000 rpm of a traditional single-phase motors. This difference means that there is much lower stress for the shafts and bearings. The motor is powered by induction: there are no carbon brushes, sparks, or other components in friction. These motors do not need maintenance, they were developed for professional use and they are routinely used by industries for continuous duty (24 hours, every day) with reliable characteristics. These motors cannot be compared with a traditional vacuum system and they are the highest technology on the market.



The motors can be equipped with an ELECTRONIC INVERTER so the motor can automatically adopt the power (and the consumption) according to the number of simultaneous operators and the filtering surface efficiency. An electronic transducer for vacuum measurement located in the central unit maintains the optimal operative vacuum level (Default 140mbar, 56inH20). When the vacuum is too high the system lowers the motor rpm and as a result the power consumption is reduced. When the vacuum is too low the system increases the motor rpm and increases the vacuum level and airflow. Electromagnetic shielding type B (for private applications) and is provided with certificate to avoid electromagnetic interference issues. The prime advantage of the inverter is an economical way to proportion electric power consumption to the ever changing system needs.



ELECTRIC CONTROL BOX is provided with IP55 safety degree, in accordance with CEI. Magnetic-thermal protection, control display, selector switch for automatic or manual, and star-triangle starting for motors with more than 2.2 kW are also provided for operational control.

CONNECTION ELEMENTS and mounting elements are always included. The DISAN central units are always furnished complete to be installed without the necessity to buy collectors, couplings, or other installation materials. The great advantage of the central units with electronic control is that they are always ready for the starting simply by connecting the plug at the current network. All the connection couplings at the solid piping (are) are anti-vibration and adjustable. OPEN FRAME steel motor mounts are for maximum dissipation of heat. The opened frame does not imply a higher sound level as 90% of the sound is from the exhaust (discharge). The system is provided with an exhaust silencer to minimize sound level. The largest advantage of the open frame is the increase in thermal dissipation, the increase in performance efficiency, and cancellation of the risk of motor fusion. The motors are on a fixed basis at tower mounting for space saving.

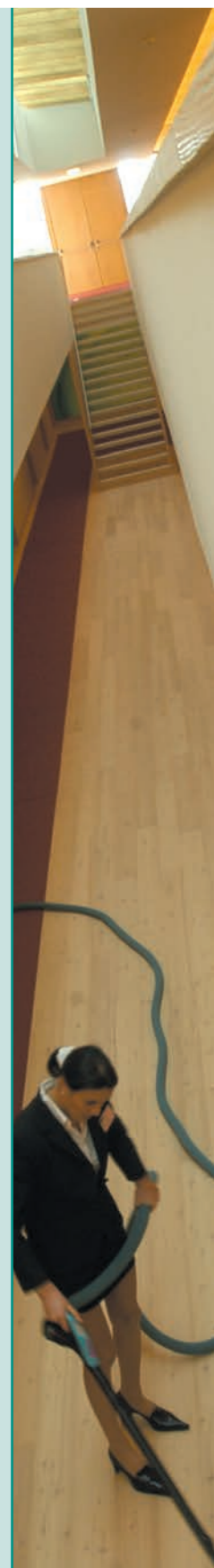
STAR FILTER made of special polyester cloth with high withstanding properties which is one of the most highly appreciated components of the DISAN system. All the industrial vacuum units use this type of filter, it combines a high withstanding of micro dust with easy-cleaning. Cleaning can be accomplished by shaking or machine washing. Different filter mediums are available to provide required BIA. The optional and recommended self-cleaning system always maintains the maximum efficiency. This system automatically cleans the filter at pre-programmed intervals (typically once per day). The filter chamber has a large surface and so it is easily inspectable.

**REMOTE CONTROL DISPLAY.**

The advantage of a programmable control system is that it allows to control and modification of the motor power. Furthermore, it can display trouble alerts. The PLC (Programmable Logic Circuits) card used is a Siemens S7200, which interfaces with a Profibus protocol so that it could be integrated with a pre-existing bus network. As an option, it provides a "touch screen" system control away from the power and filtering units.



DUST CONTAINER with cushioned fasteners for an airtight and easy closure. High capacity dust container in ABS: it requires to be emptied out only once/twice a year. The check level window permits one to check when the single use plastic bag must be replaced. The collection and the elimination of the dust can be done without any contact and by using the wheels. The optional system of compensation pressure at the dust container is available.





## TECHNICAL DATA

A commercial range or central vacuum systems are available with the highest technology and proven system components deliver long term reliability Systems range in size from one to eight operators working simultaneously with options for traditional or inverted power control.

Technical data		A01	B01	B02	BC100i	C03	CD125i	D02	EF125i	F03	H02
Minimal simultaneous operators		1	2	2	2-3	3	3-4	4	5-6	6	8
Motor power	Kw	2,2	5,5	2x2,2	4,5	3x2,2	5,5	2x5,5	7,5	3x5,5	2x7,5
Voltage requirement	V	380	380	380	380	380	380-	380	380	380	380
Suction power max	mbar	320	360	320	340	320	360	360	360	360	380
Airflow max	m <sup>3</sup> /h	316	552	632	690	942	868	1.100	1.264	1.640	1.810
Airflow @ 140 mbar	m <sup>3</sup> /h	224	407	440	165-565	655	223-784	805	840	1.210	1.470
Sound level	dB	68	78	68	68	68	71	78	71	78	78
Mortor weighth	kg	49	156	106	65	157	163	325	105	486	369
Mod.		A100	B100ST	B200		C100		D100			
Filter chamber capacity	l	160	160	160		160		260			
Dirt receptacle capacity	l	100	100	100		100		100			
Filter surface	cm <sup>2</sup>	19.500	19.500	19.500		19.500		19.500			
Separator weight	kg	57	57	57		61,8		57			
Mod.		A125	B125ST	B225		C125		D125		F125	H175
Filter chamber capacity	l	210	210	210		210		210		210	580
Dirt receptacle capacity	l	125	125	125		125		125		125	175
Filter surface	cm <sup>2</sup>	45.000	45.000	45.000		45.000		45.000		45.000	62.000
Separator weight	kg	95	95	95		95		105		95	200

Please notice: When comparing our product with others do not focus only the nominal values (e.g. Watt) or values which are almost impossible to estimate (e.g. Airwatt) or which are not important for the operational functionality (e.g. Suction power max ) Buyers should consider mainly system efficiency, motor reliability (Siemens), and filtering system characteristics. Focus on the technical properties of the total system and note that proper system design and installation is critical to final system performance.

**The best international technical offices choose DISAN when they are asked to design a professional central vacuum system. This is due to the reputation, expertise, and attention to detail provided by DISAN. More than 15 years of professional system work and 1/000 installed systems provide the fundamental expertise needed for your project.**



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