

AGRAMKOW



SARA-MAX / SARA-MAX-F

Priced right. Sized right. Just right all-in-one safe solution

SARA-MAX: A smart investment

Speed has never been this economical

SARA-MAX makes it easy and affordable to upgrade to AGRAMKOW charging technology.

And it all happens with the speed of the dual-action charging cylinder that works as a pump and charging cylinder.

More performance and flexibility

Choose SARA-MAX in versions for flammable or non-flammable refrigerants for unprecedented performance in an all-in-one solution either for 1 or 2 media — with a speed up to 120 g/sec for non-flammable refrigerants.

Coupled with our highly reliable positive displacement cylinder design, quick recovery of the charge unit, self evacuation and productivity enhancing diagnostics, SARA-MAX is engineered to improve mean time to repair (MTTR) and lower maintenance costs.

Minimum downtime.

Maximum utilization

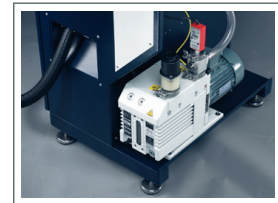
SARA-MAX incorporates advanced technologies that put a break on potential speed losses—and speeds up productivity. Its Vacuum Sensor Diagnostics monitor the entire vacuum circuit - the vacuum pump, sensor and valves - to make sure everything is working fine. The Pressure Sensor Diagnostics does the same for charging supply, sensor and valve components. Its modular charge cylinder and evacuation manifold design eliminate the risk of leaks and the disposable filter eliminates filter house cleaning. Furthermore the cooling circuit and the gun heat ensure superior accuracy. This is an affordable way to improve your charging operations to the reliability of AGRAMKOW.

Configuration options

As with all AGRAMKOW charging solutions, SARA-MAX is designed to work seamlessly with your existing production environment. With flexible options and features like right or left hand hose outlets, PLIS compatibility, Automatic Disconnection (ADC), and a built-in bar code scanner with customer defined bar codes, SARA-MAX lets you build the charging station that's best for your operations. Even an integrated Safety Monitoring System can be supplied with the SARA-MAX F version.



SARA-MAX features AGRAMKOW's Positive Displacement Cylinder design for maximum uptime and minimum maintenance



Cost-saving dual-action charging cylinder

The cylinder works as a pump and charging cylinder. As a result, you eliminate the cost of a separate pump. And you'll use less space. And less money thanks to its positive displacement design that assures low maintenance. Anyway you look at it, you save.

Blazing speed

With charging speeds of more than 120 g/sec, you won't find a faster charging solution in its class.



Guaranteed accuracy

You won't have to compromise on accuracy with SARA-MAX. A cooling circuit per charge cylinder ensures stable charging performance and the charging gun has two charging valves, one for high flow and one for low flow. This heated charging gun - which is well-known from AGRAMKOW's product range - guarantees high accuracy - also for random charging processes.

Small footprint and easy maintenance

The charge cylinder, cooling circuit, filter and valves are built into one compact module that means it needs less floor space and less time for maintenance. Also vacuum pumps are placed for faster oil evacuation and refill; "Quick clamps" allow for super quick filter changes. Large evacuation pneumatic valve ensures reliable top performance.



Installation flexibility

Outlet of hoses can be on the right or left side - up or down.

Operator friendliness and efficiency

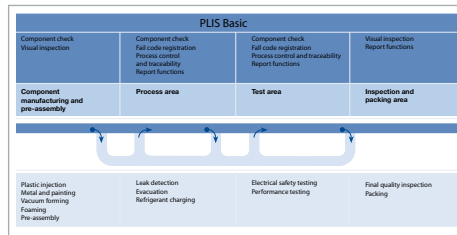
The SARA-MAX MPC™ interface combines visualization and finger touch control with powerful data collection and networking functionality.



By web access the new MPC™ gives you instant email information in case of faults. So you can make corrective actions faster. Furthermore, the web and browser-based process receipts function provides an easy overview for better data management and improved efficiency.

Choose PLIS for quality and productivity enhancement

SARA-MAX enables important process data to be edited according to the requirements of ISO9000 to support quality and traceability documentation. It also enables you to integrate your charging stations into the AGRAMKOW Production Line Information System (PLIS).



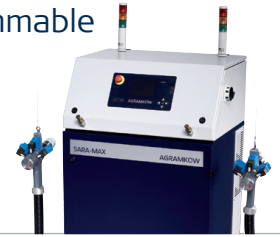
PLIS is designed to help you measure and improve every process in the production line while at the same time providing new insight into how to make your line more productive. PLIS is built around three core modules, which can be implemented step by step or all at the same time – PLIS Basic – PLIS Productivity and PLIS Data Mining.

Automatic Disconnection and SafeBlock valve makes the clamp/unclamp process far more operator-friendly, efficient and safe

Optional: HC Supply cabinet with space for two refrigerant bottles



SARA-MAX / SARA-MAX F
For 1 or 2 flammable
and/or non flammable
refrigerants



SARA-MAX is available for both one and two refrigerants. Both are available with refrigerant bottles and central supply capabilities.

DUTIES:

Both versions carry out Evacuation, Vacuum Check and Charging automatically.

MEDIA TYPE:

All common refrigerants: R134a, R404A, R407C, R410A, R22, R600a and R290.

FEATURES:

Enhanced manual channel selection mode

Installation flexibility

Built-in interface and user program for bar code scanner and printer

Sensor diagnostics (pressure, vacuum, temperature, piston position)

Self evacuation for easy start-up

Programmable alarm alert for empty bottle; process can be continued after bottle change

Time or pressure based evacuation

Gas to liquid converter

Outlet of hoses can be on the right or left side

Disposable filter – no cleaning of filter house

OPTIONS:

Bar code scanner incl. configurable bar code

ADC gun - Automatic Disconnection

2 sided evacuation

6 m charging hose

SafeBlock

Pass/fail interface

Light tower

Welding interface

Leybold 25 m³/h or basic 16 m³/h vacuum pump

Printer including standard print out format

Mobile station (only for non flammable version)

Safe IR 2 System

Bottle cabinet for flammable refrigerants

PLIS 4™ compliant



SARA-MAX-F All-in-one solution

Economical, safe charging technology combined with integrated Safety Monitoring System

The new SARA-MAX F is an all-in-one Charging station for flammable and non-flammable refrigerants with integrated Safety monitoring System Safe IR 2 which in combination with the SafeBlock feature and automatic Disconnection of the charging gun makes it a safe and affordable entry into the AGRAMKOW environmental friendly charging technology.

Easy Installation and Maintenance. Maximum support.

AGRAMKOW makes it easy to integrate SARA-MAX into your production line with installation support and hands-on training.

The Service Mode of the MPC™ ensures easy maintenance by enhanced force control of internal components where the functionality can be simulated.

The Total Preventive Maintenance (TPM) together with the integrated Email functionality, secures a traceable and immediate alert for the maintenance department and a high OEE.

AGRAMKOW provides local support wherever our products are sold.

We have regional offices and service partners around the globe to ensure our customers get the backup and assistance they need.

Put our experience to the test

AGRAMKOW designs, develops, and markets state-of-the-art charging systems, test systems and production line information systems that are deployed in leading manufacturing facilities around the globe. Always on the vanguard of new performance technology, AGRAMKOW has continually pioneered the development of new capabilities in response to the rapidly changing needs of the refrigeration and air conditioning industry.

AGRAMKOW has subsidiaries in Asia, Latin America, and Europe as well as Service partners worldwide.

AGRAMKOW

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203-450001A-02

Technical specifications

SARA-MAX

Refrigerants	R134a, R404A, R407C, R410A, ISCEON 89 and R22, others on request
Charging capacity	50g - 99999g
Charging speed	120g/sec *
Accuracy	50-100g: ± 1g > 100g: ± 1 %

SARA-MAX F

Refrigerants	R600a, R290 (HC)
Charging capacity	20g - 150g (HC), other range on request
Charging speed	20g/sec ** 10g/sec **
Accuracy	20-100g: ± 0,5g > 100g: ± 0,5 %
Refrigerants	R134a, R404A, R407C, R410A, ISCEON 89 and R22 (NF)
Charging capacity	40g - 99999g
Charging speed	40g/sec *** 20g/sec ***
Accuracy	20-100g: ± 1g > 100g: ± 1 %

GENERAL

Display	320x240 TFT w. touch, colour
Language support	English, German, Italian, Spanish, Korean Portuguese, Chinese, others on request
Gun	One or two charging guns, ADC type, Evacuation gun, High-Speed
Charging hose	3 m length, others on request
Vacuum pump	16 m³/h with oil mist filter
Vacuum gauge	Active Pirani sensor
End Vacuum	0,02 mbar
Channels	990 Programmable channels 9 Quick channel selection 1 Last channel selection Top 10 channel selection
Charging technology	AGRAMKOW PDC with DFC

Interfaces/ Communication	Support for 10/100Mbit Ethernet with PLIS4 protocol Support for RS485 with PLIS3 protocol Support for local and network PCL printing Firmware update via USB flash disc Scanner support through RS232 channel including power supply for scanner I/O Interface for UPS and Scada system
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Operation temperature	12-50°C
Max relative humidity	90 % nc
Protection	IP 43
Refrigerant supply	Bottles or Central supply (15 to 35 bar)
Compressed air supply	Min. 5 bar, non lubricated, dry air
Voltage supply	3 ph. 380-440VAC, 50/60Hz ±5% + N + PE 3 ph. 220-255VAC, 50/60Hz ±5% + PE others on request
Power consumption	Max 2kVA
Dimensions (L x W x H)	970 x 700 x 1365 mm
Weight	180 kg (excl. bottles)
Noise level	< 70 dB(A)
Code no.	203-000010A (SARA-MAX-F) 203-000030A (SARA-MAX)

* <1,3 kg R134a

** <75g R600a

*** <150g R134a

Alterations reserved