

Application Note (CO₂): CoolPoint

Date of Completion: May 2015

CoolPoint is one of Pakistan's reputable Manufacturers of mini & large split AC's, Coils, Cold Room/Reefer containers and Visi Cooler production. CoolPoint has had a wonderful experience with Danfoss-Agramkow's charging machine being used at its sister company Cool Industries since over two decades which is now been running at their own factory for past few years. It was an obvious choice for CoolPoint when it came to selecting a highly accurate and reliable machine for high Pressure refrigerant charging, that Agramkow would be the right and only choice, The Project was called by Mr. Fahad-Coolpoint for CO₂ charging station having flexibility of mobile version in usage.



EMAC CO₂: Cool Point planned to shift to Environmental friendly Refrigerant for their chest type bottle coolers for this they turned to CO₂ (R744). According to its chemical Properties, it makes the unit Eco Friendly and project is driven by a multinational company.

Khan Brothers recommended Agramkow's EMAC CO₂ charging station because it is designed/used for high pressure refrigerants and it is extremely accurate.

EMAC Charging station for CO₂

To meet the customers demand for affordable high precision and high quality CO₂ charging AGRAMKOW has developed the EMAC CO₂ charging station for medium sized productions.. The EMAC CO₂ charges CO₂ in a gaseous phase removing the need for external cooling and insulated supply lines. In fact the EMAC CO₂ will function within specification from 10°C to 50°C without any special requirements.

With a charging capacity of 50 g -1000g and speed of 10g/sec, it charges the CO₂ in a gaseous phase removing the need for external cooling and insulated supply line functioning from 12°C to 50°C without any special requirements. This ensures a simple and cost effective way of installation for the customer.



Special Features: The EMAC CO₂ combines state of the art technology with high quality components to ensure a reliable and accurate charging process. Specifically, the instrument is defined by the following:

Mass flow technology: based on Coriolis measurement technology. This ensures high accuracy independent of ambient temperature and refrigerant pressure.

- **MPC controller:** giving the user a color touch interface. Navigating straight forward; standard package includes advanced features such as TPM and full PLIS integration.
- **Advanced Dynamic Flow Compensation (DFC):** enables the instrument to meet accuracy specification in the entire operating temperature range and removes the need for heating or cooling of the refrigerant and charging area.
- **Full control and traceability: fully** supported by AGRAMKOW's PLIS system giving the advantage of centralized control of parameters and full traceability of process values on a product level.
- **Simplifying the difficult:** takes care of the difficult tasks and makes charging CO2 as straightforward as charging any other refrigerant.
- **Leybold Vacuum pump:**
- The EMAC CO2 has AGRAMKOW's usual color **touch screen interface** for easy operation and Ethernet connectivity for data collection."
- Its **unique safety gun** avoids that it disconnects during charging, a safety feature because CO2 has a very high pressure which can be harmful for the operator."

EMAC Mobile- All in one Solution,
(Agramkow offers Mobile version, so it can be easily switched from one Production line to other)



Agramkow specialize in a wide range of products from charging and evacuation stations to testing and integrated production line information systems and solutions innovative fluid filling, testing and other end-of-line solutions. Committed to environmental projects, AGRAMKOW develops innovative refrigerant recovery, recycling and reclamation equipment and services.

Comments:

Mr. Fahad Javid (Chief Executive)

“Working with Khan Brothers is satisfactory. We always get local support from your side.”

Mr. Jawad Ahmed (Manager Quality Assurance)

“Charging amount and vacuum check is very accurate, machine is working fine up till now”

Mr. Moazzam Ali Rana: (Project Coordinator)

“We really appreciate cooperative efforts of Khan Brothers. It is really pleasure doing business with AGRAMKOW”



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