



COMBO Reactor GRACO E-20

Designed and Made by Kalivis S.A.

Complete Fast Set Unit for Polyurethane Foam and Polyurea,
with unbeatable advantages and very competitive price!



Advanced Spraying Systems

Technology at the Edge!

Reliability and Consistency that You Need!

YES, IT IS A FACT!

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The new **COMBO REACTOR GRACO E-20** is coming to fill - **at half price!** – the gap created by the interrupted production of GRACO Integrated Reactor E-30i, which has already been ceased by the factory.

COMBO incorporates GRACO's technology, implemented in one unit that offers an all-in-one solution:

- Undeniable **GRACO excellent quality!**
- **Very economic**, compared to every other Graco's models as well as to similar competitors' products. Using simple mathematics and simple comparison, you will be convinced that with the money you would spent for a bare unit, you can now have a complete system of the highest standards and capabilities!
- **Very Economic Setup.** If you calculate how much you would spend to build such a system with individual pieces, you would realize that you would spend at least 30% - 40% more money on units of uncertain compatibility, and that would require double the volume. (see below for ease and economy of transportation).
- **Power saving.** 23.5 KVA energy consumption instead of the 50 KVA that would be required for any other spray system! In one year **COMBO** will compensate of your investment.
- **Ease of use.** By pressing a button the unit starts up and you can control its operation and set the desired parameters from the central control panel. This is a great advantage when compared to other incomplete and non-integrated systems in which the individual units, placed at different sides of the system must be constantly monitored and adjusted.
- **Ease and economy of transportation.** The attempt to create a corresponding split system would require double the volume, thus the need of a large truck would be obligatory, or as an alternative, the generator would have to be towed in a trailer. The **COMBO** is about the size of a pallet and fits comfortably in a one-ton van! It therefore ensures ease of movement and economy at the cost of buying and operating a van! No professional driver's license is required, no need for a trailer generator (how dangerous this is!) and many other benefits.



- **Easy to install.** **COMBO** offers what even the GRACO Integrated Reactor E-30i couldn't! It is designed so that it can be mounted on a small truck with only one side door! No double sided door van is required for the adequate ventilation of the cargo area!
- **Storage convenience.** Inside or outside the truck **COMBO** needs the smallest possible space. Thus the space remains available for the raw material drums, facilitating the end user.
- **Unique portability.** Which are the alternatives, even when the maximum hose length is not enough to cover the requirements of large projects, no matter where the van is parked? No problem with **COMBO**! You can simply take the unit out of the van, and place it to the center of the project. There, with a simple hand pallet truck, the unit can be moved where needed. Absolute flexibility that no incomplete system can offer!

Can handle the below materials:

- Polyurethane foam
- Hybrid Polyurea
- Fast-curing Polyurethane Membranes

Applications:

- Roofs
- Tanks
- Freeze Chambers
- Trucks
- Anti-corrosion Protection of Metals - Pipes
- Shipping as well as any other application.



Digital Heat and Pressure Controls

Allow you to precisely program temperatures and pressures, and monitor machine performance

Powerful Hybrid Heaters

Provide better temperature control

ISO Pump Lube System

Prevents isocyanate crystallization on the pump seal and shaft

Quick Knockdown Lower Pumps

For easy disassembly and maintenance

Rugged, Portable Design

Easy maneuverability around the jobsite



Electric Motor

Provides superior efficiency and performance

Circulation Valves

Reduce isocyanate crystallization while offering more controlled pressure balancing

Hose Control

Reliable and accurate hose connection system. Flexible fluid temperature sensor allows you to monitor and control temperature closer to the gun.

Heat Platform

Circuit board is divided into easy-to-replace modules that simplify troubleshooting and maintenance, maximizing spray time

Technical Specifications of COMBO Reactor Graco E-20

Graco E-20	
Spray Unit	
Maximum Fluid Working Pressure	140 bar
Maximum Output	9 kg/min
Output per Cycle (A and B)	0,0395 liter
Fluid Inlets	
Component A (ISO)	3/4npt(f) 20,7bar (Max)
Component B (RES)	3/4npt(f) 20,7bar (Max)
Fluid Outlets	
Component A (ISO)	#8(1/2in) JIC with #5 (5/16in) JIC adapter
Component B (RES)	#10(5/8in) JIC with #6 (3/8in) JIC adapter
Fluid Circulation Ports	
1/4 npsm(m), with plastic tubing; 250 psi (17.5 bar) maximum	
Electric Requirements	
Input Voltage	400V, 3-Phase: 338-457Vac, 50/60 Hz
Heater Power	6.000 Watts
Temperature	
Working Range Temperature	From -7°C to 49°C
Maximum Fluid Temperature	88°C
Sound	
Sound Pressure, 1 m from equipment	70,2 db (A) at 2000 psi
Sound Power, per ISO 9614-2	80,0 db (A) at 2000 psi
Parts	
Wetted Parts	Aluminum, stainless steel, zinc plated, carbon steel, brass, carbide, chrome, chemically resistant o-rings, PTFE, ultra-high molecular weight polyethylene
Filters	Stainless Steel
Generator	
Type	AGE R25
Power Supply acc.ISO 8528-1	22,5/18 KVA/KW
Maximum Power Supply acc.ISO 8528-1	25/20 KVA/KW
Rotation Speed	1500 rpm
Frequency	50 Hz
Power Phases	3
Nominal Voltage	230/400 V
Maximum Power Current $\cos\phi$ 0,8	36 A
Maximum Power Current per Phase $\cos\phi$ 1	28,8 A
Diesel Engine manufacturer	RICARDO Italy
Diesel Engine Type	R490
Fuel	Diesel
Tank Capacity	120 lt
Autonomous Function With Full Load	23 hr
Number of Cylinders	4
Diesel Engine Chambers Volume	2.545 cm ³
Maximum Power on Shaft	23 KWm
Bore and Stroke	95 x 100 mm
Generator manufacturer	MARANELLO Italy
Generator Type	M25
Generator Power	23,5 KVA
Generator Function	Brushless
Generator Output	Stabilized with AVR
Generator Winding Insulation Class	H
Generator Output at 100% at $\cos\phi$ 0,8	86%
Air Compressor	
Manufacturer	EUROMAIR France
Type	EUROPRO40
Rotation Speed	1420 rpm
Flow-rate of air absorbed	546 lt/min (33 m ³ /h)
Oil capacity (crankcase)	1,52 lt
Oil consumption	1,4 g/h
Motor Power	3 KW
Electrical Supply	230 Vac
Frequency	50 Hz
Current	16 A
Thermal Protection	Yes
Safety Valve	Yes
Tank Capacity	4,5 lt
Maximum Pressure	10 bar
Air Coupling	Quick-connect
Noise Level	92 Lwa
Air Cooler Filter	
Manufacturer	EUROMAIR France
Type	91230
Electrical Supply	230 V
Current	0,4 A
Maximum Pressure	12 bar
Maximum Flow	1025 m ³ /h
Air Coupling	Quick-connect
Total Unit Dimensions / Weight	
Dimensions (w x l x h)	1300x1500x1200 mm
Weight (No Hoses, Pumps, Circulation Pumps etc. included)	890 kg