

G SERIES

PROBAT



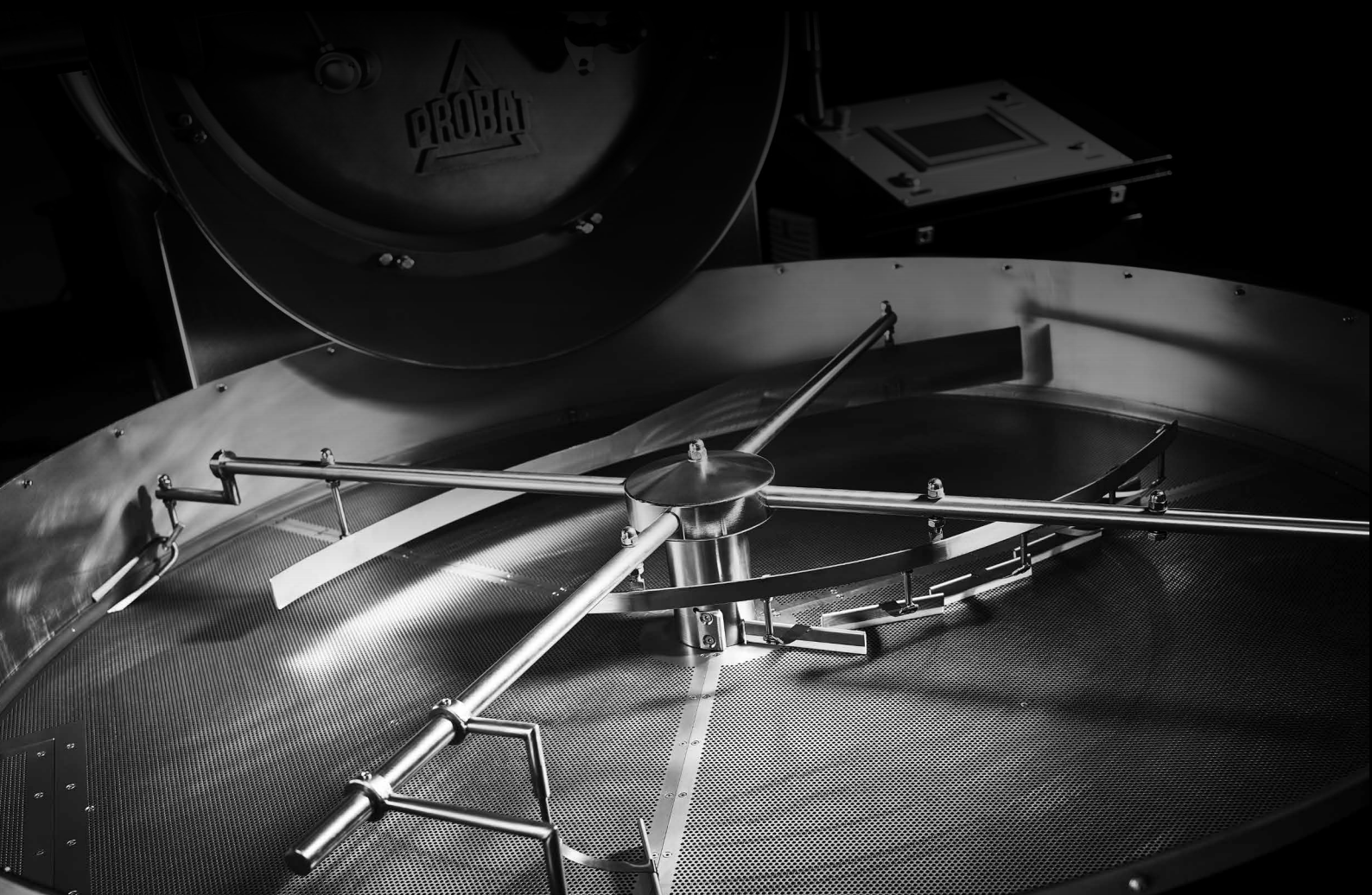
THE MACHINE FOR CONNOISSEURS

The roasters of the G series are based on the drum roasting method: special shovel blades inside a horizontally lying, rotating roasting drum ensure even mixing of the beans during the roasting process and a homogeneous product. The G roasters, with batch capacities ranging between 60 and 120 kg, are equipped with pneumatic-operated opening flaps on the bean container, roasting drum, and cooling sieve outlet as a standard. These functions allow for reliable processing of green and roasted coffee and are controlled either fully automatically or simply by pressing a button on the control panel.

BENEFITS FOR YOUR COFFEE








The ideal diameter-length ratio of the roasting drum of the G roasters guarantees a homogeneous heat transfer onto the beans during the roasting process. In addition, the G roasters offer the following benefits:

- Even mixing of the coffee beans inside the roasting drum
- Roasting air volume can be adjusted due to the integration of a frequency converter into the roasting fan
- Precise air flow thanks to the traditional flavor wheel
- Intensive cooling
- Powerful fans
- Reproducible product quality
- Independent drives for the drum and mixer, as well as for the roasting and cooling fan
- Additional separate cooling sieve outlet
- Easy to clean thanks to large maintenance openings
- Reduced emissions thanks to additional cooling exhaust air cyclone



VERSIONS

The roasters of the G series are equipped with state-of-the-art drive, burner, and control technology, as well as a cyclone both for the roasting and cooling exhaust air. The following models are available:

	 Roasting Time (min)	 Roasting Capacity (kg/h)	 Batch Size (kg)	 Heating	 Space requirement min. – max. (m ²)	 Recommended room height (m)	 Dimensions (L × W × H) (mm)
G60	10–20	100–195	20–65	propane, natural gas	21–30	4,5	6500 × 4800 × 3500
G75	10–20	125–240	25–80	propane, natural gas	22–31	4,5	6800 × 4800 × 3500
G90	10–20	150–285	30–95	propane, natural gas	30–38	4,5	7500 × 5100 × 3640
G120	10–20	240–360	60–120	propane, natural gas	32–40	4,5	7850 × 5100 × 3640



CONTROL

The G roasters are equipped with thermocouples as standard to document the supply-air, product, and exhaust-air temperature. The basic version is controlled manually. Optionally, the G roasters can be equipped with a semi- or fully automatic control solution with a touch panel.

- Recipe management with up to 40 user-definable recipes; saved settings can be reproduced safely and automatically (semi- and fully automatic control solution)
- Visualization of the roasting curve on the touch screen (semi- and fully automatic control solution)
- Burner output can be selected manually or automatically from a recipe (semi- and fully automatic control solution)
- Interface for external software systems from Artisan and Cropster (semi- and fully automatic control solution)
- Process safety through pneumatic opening flaps on the bean container, roasting drum, and cooling sieve outlet (semi- and fully automatic control solution)
- Additional protective cover on the cooling sieve (fully automatic control solution)
- Emergency water quenching for the roasting drum (fully automatic control solution)
- Additional water quenching for the chaff collection container of the roasting cyclone (fully automatic control solution)
- Automatic heat switch-off when the desired final temperature is reached
- Automatic safety shutdown of the burner when the temperature limit is reached
- Router for remote maintenance and diagnosis as well as software updates



FEATURES



BURNER

The burner used in the G roasters can be configured for use with natural gas or propane, depending on customer requirements, and stands out due to the following features:

- High capacity
- Continuously adjustable for a more flexible roasting process
- State-of-the-art safety technology, including gas and flame monitoring



ROASTING EXHAUST AIR CYCLONE

The G roasting exhaust-air cyclone features a large, wheeled chaff collection container made of aluminum, making it light and easy to empty. In addition, the cyclone offers the following features:

- Individually adjustable
- Manual, emergency water quenching for the chaff collection container



COOLING EXHAUST AIR CYCLONE

The G roasters come standard with an additional cyclone for the cooling exhaust air. This extra exhaust-air treatment keeps the amount of dust particles that enter the environment to a minimum.



ROASTING FAN

Even in the basic version, the roasting fan of the G roasters is equipped with a frequency converter. Furthermore, the roasting fan stands out due to its particularly high performance and can be connected to an exhaust-air treatment system.

ACCESSORIES



GREEN COFFEE CONVEYOR

PROBAT green coffee conveyors make it extremely easy to feed green coffee into the feed hoppers of the roasters of the G series.



AFTERBURNER

To further treat the visible exhaust gases released during roasting, the roasters of the G series can be equipped with an afterburner specially designed for this process.



DESTONER

PROBAT destoners reliably remove foreign objects with a higher specific weight than roasted coffee.

TECHNICAL DATA

		G60	G75	G90	G120	
Machine Performance*	Batch	(kg)	20–65	25–80	30–95	60–120
	Roasting Time	(min)	10–20	10–20	10–20	10–20
	Capacity	(kg/h)	100–195	125–240	150–285	240–360
Power Supply (Three-Phase Current)	Voltage	(V)	230/400	230/400	230/400	230/400
	Frequency	(Hz)	50	50	50	50
	Power	(kW)	13	13	15	15
Burner Output	Natural Gas/Propane	(kW)	160	200	230	280
		(kcal/h)	121,000	152,000	174,000	212,000
		(MJ/h)	496	620	714	870
Gas Consumption – Natural Gas*	Calorific Value	(MJ/mn ³)	37	37	37	37
	Flow Pressure	(mbar)	20	20	20	20
	Full Load	(mn ³ /h)	16	20	23	28
	Roasting Operation	(mn ³ /h)	8.8	11	12.6	15
Gas Consumption – Propane*	Calorific Value	(MJ/mn ³)	100	100	100	100
	Flow Pressure	(mbar)	50	50	50	50
	Full Load	(mn ³ /h)	5.2	6.5	7.4	9
	Roasting Operation	(mn ³ /h)	2.9	3.6	4	4.9
Roasting Exhaust Air (Without Afterburner)	Flow Rate	(mn ³ /h)	1,100	1,400	1,800	2,200
	Temperature	(°C)	150–250	150–250	150–250	150–250
Roasting Exhaust Air (With Afterburner)**	Flow Rate	(mn ³ /h)	1,100	1,400	1,800	2,200
	Temperature	(°C)	400–500	400–500	400–500	400–500
Cooling Exhaust Air	Flow Rate	(mn ³ /h)	3,200	3,600	3,800	4,100
	Temperature	(°C)	30–70	30–70	30–70	30–70

* Depending on desired color intensity, residual moisture, roasting time, negative pressure, roasting supply air temperature, green coffee moisture and type, etc.

** A catalyzer solution is optionally available.

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