

**RAVO**<sup>®</sup>  
FAYAT GROUP

# 4-SERIES CNG/BIOGAS



[ravo4.com](http://ravo4.com)



**THE CLEANEST IN ITS CLASS  
WITH THE BIGGEST PAYLOAD**

# SETTING THE STANDARD THE WORLDS' FIRST CNG SWEEPER



## CNG/Biogas: Your clean choice

More and more municipalities are discovering the benefits of CNG. CNG has many benefits compared to Diesel. Not only ensures CNG reduced emissions (up to 90% less than Diesel) and low operational costs but also a quieter sweep. The RAVO 4-Series CNG has passed the TÜV Lwa test with only 99 dB and also meet all EU EEV regulations. The specially designed CNG storage cylinders mounted on the roof of the hopper guarantee an action radius similar to a Diesel sweeper. Also in hilly areas the RAVO 4-Series CNG sweeper is a winner with a climbing ability up to 20% when fully loaded. Add to this the low running costs since CNG is cheaper than Diesel and one can conclude that the 4-Series CNG is also an economical sound investment.

## The ultimate sweeper

Reliable, effective, efficient and above all clean. The cleanest in its class with the biggest payload: almost 3 Tonnes fit in its 3m<sup>3</sup> stainless steel container. And due to its high compaction rate the effective payload is comparable with that of a normal 4 m<sup>3</sup> sweeper. The transport speed of 40 km/h and the small width of only 1400 mm make the RAVO 4-Series CNG a versatile sweeper. A versatile sweeper with a variable sweeping path of 1600 to 2000 mm and up to 2700 mm when the powerful third brush is mounted. Ideal for city centers, narrow streets but also for parks and industrial zones. A robust chassis, spacious cabin and solid design combined with the latest technique make the RAVO 4-Series CNG a pleasure to drive and guarantees many safe and reliable sweeps. The dedicated IVECO CNG engine and Linde hydraulics ensure a powerful, reliable and economical driveline.

## Technique

The RAVO 4-Series CNG has undergone extensive testing, from the mountains in Switzerland to the city center of Amsterdam. The 4-Series CNG is equipped with the unique RAVO hydro pneumatic suspension for an optimal sweeping result. To make this result even better RAVO has engineered a special maintenance friendly brush system for a constant brush pressure. The automotive driveline ensures smooth sweeping and comfortable driving and because of the watertank of 400 liter, less returns to the yard are necessary.



# THE RAVO 4-SERIES CNG/BIOGAS, FOR A CLEANER SWEEP



## > **Specially developed for cities**

Small enough to reach those difficult corners, but robust enough for the tough jobs

## > **Environmental friendly sweeping**

The CNG engine is up to 70% more silent than a diesel engine. TÜV tests state a Lwa of 99 dB vs. 110 dB for a diesel sweeper

## > **Powerful sweeping**

Due to the use of a dedicated IVECO NEF CNG engine no power is lost compared to using a similar Diesel engine. And because the CNG tanks are mounted on the roof no loading capacity is lost

## > **Economical sweeping**

CNG is relatively cheap compared to Diesel. Since IVECO has a long experience in CNG technology they have managed to develop a dedicated CNG engine that runs very economically

## > **The best alternative for Diesel**

- NO<sub>x</sub> reduction
- CO<sub>2</sub> reduction
- No carbon emission

## > **Safe**

CNG is stored in specially designed safe and shockproof cylinders

## > **Proven technology**

IVECO is world market leader in CNG engines and many municipalities have already discovered the benefits of CNG powered vehicles

## > **Clean**

CNG is a clean fuel. These days many cities have "green zones". A CNG Sweeper is the way to underline the green ambitions of your community

## > **Better performance**

IVECO CNG NEF engines have a superior start- and drivability even under extreme hot and cold weather conditions since CNG is already in a gaseous state



> **Lower running costs**

CNG is cheaper than Diesel and is more fuel efficient. Therefore already after a short period the machine will have a higher return on investment

> **Best in its class load capacity with a total GVW of 7.5 Tonnes**

- 2.9 Tonnes real load capacity
- Gross container volume of 3m<sup>3</sup>
- High compaction rate due to powerful fan (10,000 m<sup>3</sup>/h)
- Discharge height up to 1550 mm
- Capacity watertank of 400 Liter

> **The ultimate sweep**

- Sweeping path of 1600 to 2700 mm (including third brush)
- Maintenance friendly brush system
- Spacious ergonomic cabin
- Logical operation
- Powerful third brush to cut weeds or reach difficult places
  
- RAVO: 45 Years of market leadership in sweeping technology





## SETTING THE STANDARD



# RAVO 4-SERIES CNG/BIOGAS SPECIFICATIONS

TYPE	RAVO 4-SERIES		
Version	Standard Tipping		Container Dump
Gross Volume [m <sup>3</sup> ]		3,0	
Loading Capacity / Payload [kg x 1000]		Up to 2,95 tonnes	
<b>Well-Being</b>			
Noise Emission Lpa dBA		65 - 70	
Noise Emission Lwa dBA		97 - 106	
PM 10 Dust Filtration		Standard	
Dust Filter		Optional	
Water Recycling		Optional	
<b>Engine &amp; Drive system</b>			
Motor Brand / Type / Combustion process		4 Cylinder Iveco / F1 CNG / Otto	
Emission Level / directive		EEV (Enhanced Environmental-friendly Vehicle) / Directive 2005/55/EC	
Maximum Torque [Nm @ rpm]		350 @ 1500-2730	
Maximum Power [kW @ rpm]		100 @ 2800	
Transport Speed [km/h]		0 - 40	
Type Drive Line System		Linde, Hydrostatic Continuously Variable	
<b>Dimensions, Weight, Capacities</b>			
Turning Radius Curb to Curb [mm]		2500	
Gradeability [%]		Up to 30	
Length [mm]		4290	
Width [mm]		1400	
Height [mm]		2350	
Sweeping Width: min - max (including third brush) [mm]		1600 - 2700	
Gross Vehicle Weight [kg]		7125	
Unladen Weight [kg]	4500		5000
Capacity Fuel Tank [kg] [liter]		66 / 400	
Capacity Water Tank [liter]		400	
<b>Brakes, Electricity</b>			
Front and Rear Brakes		Hydraulically Actuated Servo Drum Brakes	
Front Suspension		Independent Hydro-pneumatic Suspension	
Rear Suspension		Rubber Cone Springs	
Battery (V/Ah)		2 x 12 / 72	
Voltage (V)		24	
<b>Hopper</b>			
Dump height [mm]	755		1550
Discharge system Tipping	Tipping		Pressure Plate
Material		Stainless steel	
<b>Chassis</b>			
Material		Corten steel	
<b>Suction system</b>			
Capacity blower [m <sup>3</sup> /min]		167 (approx. 10.000)	
Suction nozzle dimensions l x w [mm]		120 x 630	
Suction nozzle material		Corten steel	
Suction tube diameter [mm]		225	
Suction tube material		Stainless Steel	
<b>Brush system</b>			
RAVO Unique Brush System		Standard	
Brush diameter [mm] (optional)		750 (800)	
Operation		Joystick	
Brush rotation speed [rpm]		0 - 165	

**ravo4.com**

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