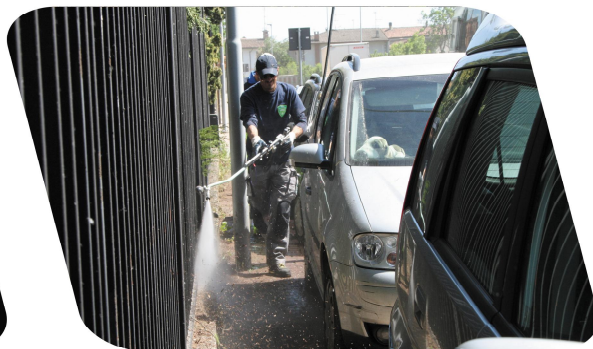
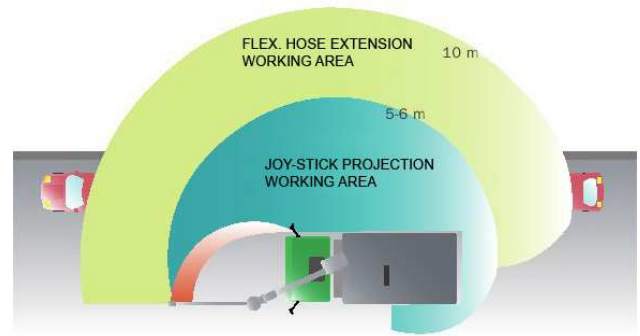
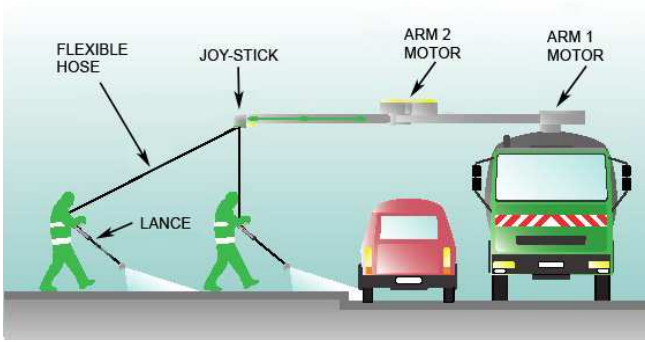


# SWEEPY-JET®



[www.iaproductio.it](http://www.iaproductio.it)

Sweeepy-Jet is an innovative system that allows to wash, sweep and sanitize streets and sidewalks.



Sweepy-Jet is installed on street sweepers to allow the sweeping, cleaning and disinfection of streets and sidewalks and specially in the areas where vehicles are parked.

The device allows the operator to carry out the sweeping through the use of a pressurized water lance. The jet removes the waste channeling it to the centre of the roadway where it is picked up by the sweeper.

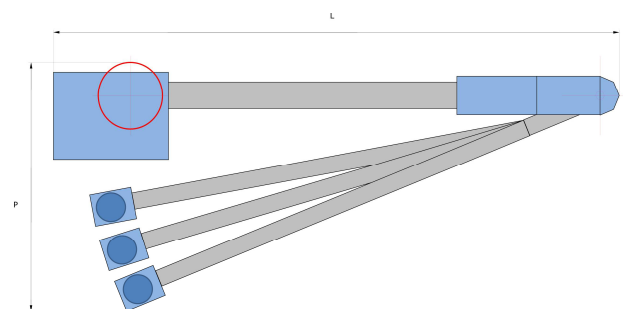
Sweepy-Jet is a device made up by two articulated and motorized arms, applied on the top of street sweepers, in order to be higher than the majority of parked vehicles. This allows to bring beyond parked cars a pressurized water tube that comes out from the second arm. To this flexible tube is connected the spray lance used by the operator to sweep. A sophisticated control system evaluates the movements of the tube and automatically moves the motors of the two arms to follow the position of the operator without his direct commands.

The principal arm, arm 1, is the strongest of the two and it is connected to a fifth wheel coupling set on the top of the front side of the tipper. The secondary arm, arm 2, is lighter and more external. The two arms are linked as a compass through a cylindrical joint. A sleeve, containing a flexible tube which feeds the lance with pressurized water, is attached to the free end of the 2nd arm. The sleeve has also the function to support the weight of the lance. A device called joystick has the function of measuring the relocation of the sleeve during the operator's movements. The control logic of Sweepy-Jet translates the signals received from the joystick and controls the movement of the electrical motors of the two arms. This enables to follow automatically the operator's movements so that he can move freely within the working area, limited by the maximum extension of the arms and sleeve. The two arms, in their maximum extension, are 6 meter long, but a special system of automatic recall of the sleeve allows the operator to drift away from the truck up to about 10 meters.

Sweepy-Jet can work indifferently on both side of the vehicle, but not at the same time. The management software of the machine prevents every movement on the not-selected side. The commutation of operability from right to left is allowed on the area in front of the driver's cab, for security reasons. In parked position the arms are closed as a compass and blocked on the top of the vehicle by a blocking device, activated by an electric actuator. A spotlight with halogen lamp set at the end of the arm 2 lights the work area from above, improving the night visibility for the street operator.

total weight:	180 kg
aligned arms lenght:	5÷5.7 m
arm 1 lenght:	2÷2.7 m
arm 2 lenght:	3 m
arm 2 shape:	straight 6 ° bent 12° bent
dimensions of the arms closed in parking conditions:	L=3260 (B1=2700) L=2560 (B1=2000) P=1403 (B2 straight) P=1153 (B2 6°) P=900 (B2 12°) H=470
lengthening extensible sleeve:	3 m
spray flow rate:	7÷12 l/min
spray pressure:	80÷100 bar
supply voltage:	24 Vcc
nominal electrical power:	500 W

device, activated by an electric actuator. A spotlight with halogen lamp set at the end of the arm 2 lights the work area from above, improving the night visibility for the street operator.



The technical features of the Sweepy-Jet allow the installation on every sweeper.

Some data of Sweepy-jet, like the length of the principal arm and the shape of the second arm can be adapted according to the dimensions of the sweeper. In small sweepers, in order to reduce the overall dimensions, a shorter principal arm can be installed and the fifth wheel coupling can be decentralized. The maximum spray flow rate is determined according to the dimension of the truck's tank.

The optimal sweeping condition is obtained with pressure range between 80 and 100 bar.

truck features

maximum height:	less than 3.5 m
width:	more than 1.6 m
extra payload:	400 kg max (300kg on the front axle 100 on the back)
minimum water tank capacity:	500 l
Possibility to install an extra pump for pressurized water (if it is not available on the truck yet), that works simultaneously with the brushes	



The lance allows the operator to execute the sweeping through the pressurized water jet opened as a fan. It is hung on the sleeve, which goes down through a fast joint and a swivel joint. To better fit the need of the operator, the spray lance has a handle adjustable in height, and a right-left version. The spray head has restrained dimensions in order to reach the narrow areas between sidewalk and parked cars and it is supported by a pivoting wheel. The control devices and regulation of the lance are:

- open/close gun of spray water;
- radio frequency remote control to enable the joy-stick movements;
- regulating knob to adjust in height the lance
- retractable handlebar for narrow ways.



The control panel, set in the cab, allows to conduct the control functions, dialogue and diagnostics of the Sweepy-jet. The switches allows to start the open/close automatic sequences of Sweepy-jet, to work on both sides of the vehicle, to start the spotlight.



The 2-line LCD display allows to start the manual movement commands of the three electric motors (of the two arms and of the locking actuator).

Some pages of the display allow to set up the operating parameters of the machine and to carry out the calibration of the potentiometers and of the maximum speed of the motors. The display performs an important diagnostic activity by signaling eventual alarms with a brief description.



The installation of Sweepy-jet on a vehicle requires some kind of mechanic and plant adaptations on the vehicle. The entity of these adaptations is determined by the characteristics of the vehicle.

The main activity concerns the realization of a strong anchor system of the fifth wheel coupling which must be set in the highest part of the vehicle, just behind the driver's cab.

In big sweepers you can take advantage of the top of the tipper's structure, while for the little ones a specific structure is required. As for the pressurized water circuit, when possible, it is used the circuit already present in the sweepers, otherwise an additional piston pump of 2kW circa must be installed. Regarding the adaptation of the wiring, only rarely the installed alternator must be replaced with a bigger one.



**SWEEPY-JET®** produced by:  
INGEGNERI ASSOCIATI PRODUCTION S.r.l.  
Stradone Farnese, 12  
29121 Piacenza - Italy  
Tel. +39 0523 315587  
Fax. +39 0523 312733  
e-mail: [sweepy-jet@iaproductioin.it](mailto:sweepy-jet@iaproductioin.it)  
internet web site: [www.iaproductioin.it](http://www.iaproductioin.it)

**SWEEPY-JET®** is a registered trade mark.  
**SWEEPY-JET®** international patent pending.