# SIBESTAR

Ti indica la strada.









Sibestar S.r.l. was established in 1989 and is a leader in the production of road signing, working for private companies and the public sector (clients include ANAS - State roadbuilding authority -, Provincial governments, municipalities, shopping centres, highway construction companies etc...).

There are 3 families of products: line marking machines, traffic lights and signals, and horizontal and vertical road markings.

Sibestar basically works in the north of Italy, and has a range of high-quality products which fully comply with all legal requirements and are constantly updated to meet evolving market needs.



This guarantees that Sibestar products fully meet the needs of those who work in these sectors, and are synonymous with road safety for all road users.

Sibestar, with its support and maintenance services to add value to the products, is your ideal partner. The company offers as well a range of accessories to further enhance its products and enable their use in an even wider range of applications.

The company is registered with the SOA for the OS10-OS9 category CAT II, also road signs is CE marked according to EN 12899-1:2007 (in Italy it was adopted as UNI EN 12899-1:2008).



SIBESTAR.IT

# Line marking machines



CERTIFICATE CE, Sibestar's line marking machines are designed to guarantee both ease of use and professional results. A wide range of accessories is available, such as templates, cones, spray guns for traffic division painting, Trumeter odometers, cotton or nylon twine, etc...).

### SIBESTAR





SIBEMINI



SIBELINE 30 ST



SIBELINE 50 I



**SIBELINE 60 I** 



SIBELINE 80 I



SIBELINE 90 I



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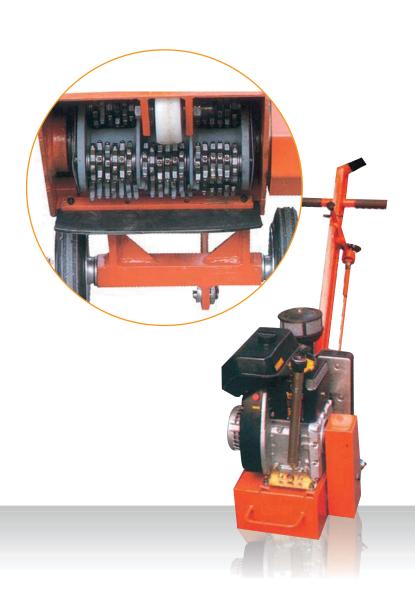
## SCARIFIER







### **SCARIFIER**



### SIBESTAR

#### **TECHNICAL CHARACTERISTICS:**

A very widely-used machine thanks to the robustness and simplicity of its components.

Simple operation: powered by a 4-stroke air-cooled motor running on lead-free green petrol –i 216 cc 4,7 KW / 6 HP 3600 RPM oil-bath filter, cord starter with automatic rewind, which turns, via pulleys and belts, a drum with 4 external axles on which the cutters are mounted. This construction, as well as creating the rotary action of the cutters, allows them to also have a hammer action, thanks to the freedom of movement between the cutters and the supporting axle.

This combined action (rotation/hammer action) allows a perfect abrasion even when the surface isn't perfectly flat. The height of the cutters can be adjusted to the millimetre. A rapid lift device allows the drum to be lifted rapidly in case of a sudden stop.

The height of the handle is adjustable.

Different types of cutters are available (from the standard tempered ones to those tempered with tungsten carbide inserts), particularly suited for monocomponent cold-applied paints. There are also other types of cutters, suitable for removing bicomponent cold-applied paints, and plastics and thermoplastics, and suitable for precise skimming, but without leaving marks in concrete surfaces.

For this, the hammer action is set to the minimum, leaving only the rotary action.

IT'S A VERY EASY-TO-HANDLE MACHINE WHICH REQUIRES LITTLE EFFORT FROM THE OPERATOR SINCE THE ROTATION OF THE DRUM PROPELS THE MACHINE ALONG.

ALL MOVING PARTS ARE MADE FROM SPECIALLY-TREATED STEEL TO ENSURE LONG LIFE. THE SPEED OF SCARIFYING DEPENDS ON THE AMOUNT OF MATERIAL TO BE REMOVED, WITH YIELDS FROM 20-40 M2/HOUR.

Maximum removal width: 20 cm. Weight: 70 Kg. Dimensions: cm 40x30x150 high.











## SIBEMINI



#### ACCESSORIES AVAILABLE ON REQUEST:

• Additional manual gun.

### SIBESTAR

- Petrol motor 6 Hp cord starter with automatic rewind – air cooled – silenced – quick starting at all temperatures.
- Compressor Capacity 280-390 l/min. approx.
- Pressure system with two pressure regulators with manometers, two safety valves and two non-return valves.
- High resistance gun for all types of paint, including reflective road paint.
- Gun start and stop actioned by pneumatic command with button on handle.
- Spray set with manual gun, telescopic
- 24 litre capacity vertical paint tank, incorporated stirrer.
- Working pressure 3 atmospheres.
- 5 litre capacity diluter tank for cleaning spray set.
- Machine's frame constitutes 3,5 litres capacity air reserve.
- Handle with easily-removable controls (to facilitate packing for transportation).
- Box for transporting tools.
- Two front wheels and one rear rotating wheel, with brake.
- Dimensions: 1,40m x 0,85m x 1,00m high.
- Empty weight: Kg 115.
- Supplied with 5m of extension tubing for using with movable gun.
- Suitable for using with all types of paint, including reflective road paint.
- The paint tank can hold a removable container, making it to change colours by simply changing the container, and permitting successive changes of colour ensuring that the colours are not modified.
- Quick "uncoupling" of the motorcompressor from the tank. The motorcompressor, with its wheels, is easy to transport thanks to its limited weight and dimensions. You can easily take it up scaffolding, stairs, pylons and elsewhere on a site, everywhere where you might need compressed air buy there's no electric power supply.
- The above-mentioned unit has an outlet to which any spray gun with tank can be attached.



## **SIBELINE 30 ST**







## **SIBELINE 30 ST**



DISC UNIT



20-I



SELF-LEVELLING

TROLLEY FOR OPERATOR





SPRAY BOX TO PAINT LINES



### ACCESSORIES AVAILABLE ON REQUEST:

- Extra manual gun.
- Extra manual gun with rigid extension.
- Pneumatically-controlled disc unit.
- Pneumo-mechanical automatic line marker.
- Mechanical distance-travelled indicator.
- Additional 20-litre PED stainless steel tank for coloured paints.

### SIBESTAR

- Petrol motor 6 Hp cord starter with automatic rewind – air cooled
   – silenced –
- Quick starting at all temperatures.
- Compressor Capacity 280-390 I/min. approx.
- Pressure system with two pressure regulators with manometers, two safety valves and two non-return valves.
- High resistance gun for normal and reflective paint.
- Gun start and stop actioned by
  pneumatic command with button on
  handle.
- Spray set with manual gun, telescopic. The gun is easily disconnected to facilitate packing and transport.
- 30 litre capacity stainless steel to PED standard paint tank incorporated stirrer.
- Working pressure 4 atmospheres.
- 3.3 litre PED stainless steel air reserve tank
- 3.3 litre capacity PED stainless steel diluter tank for cleaning spray set.
- Two pressure regulators with manometers
- Two certified safety valves
- Pneumatic coupling to regulate air pressure
- Two non-return valves
- Controls on handlebar, easily accessible.
- Box for transporting tools.
- Three wheels (one front and two read) with air-filled tyres, ball-bearing axles.
- Brake on one of the rear wheels.
- Dimensions: 1,70m x 0,90m x 1,00m high.
- Empty weight: 140 kg approx.
- Supplied with 5m of extension tubing for using with movable gun.
- The equipment is constructed for spraying pre-mixed solvent and water based paints, including reflective and epoxy paints.
- We do no welding on our tanks after they have been tested



## **SIBELINE 50 I**





## **SIBELINE 50 I**



### ACCESSORIES AVAILABLE ON REQUEST:

- Extra manual gun.
- Extra manual gun with rigid extension.
- Pneumatically-controlled disc unit
- TELESCOPIC UNIT with SELF-LEVELLING wheel.
- Pneumo-mechanical automatic line marker.
- Spray box to paint lines
- Electric start.
- Operator trolley
- Additional 20-litre PED stainless steel tank for coloured paints.
- Flashing light\*
- Illumination light\*.
- Electronic line tracing\*.

\*In the version with electrical starter.

### SIBESTAR

- 9 Hp petrol motor, cord starter with automatic rewind, air cooled, silenced, centrifugal clutch disconnects compressor at low revs and facilitates starting.
- Quick starting at all temperatures.
- Compressor Capacity 415-540 l/min.
   approx.
- High resistance gun for normal and reflective paint.
- Gun start and stop actioned by pneumatic command with button on handle.
- Spray set with pneumatic gun, telescopic. The gun is easily disconnected to facilitate packing and transport.
- 50 litre capacity stainless steel to PED standard paint tank incorporated stirrer.
- Working pressure 4,5 atmospheres.
- 3,3 litre PED stainless steel air reserve tank
- 3.3 litre capacity PED stainless steel diluter tank for cleaning spray set.
- Two pressure regulators with manometers
- Two certified safety valves
- Pneumatic coupling to regulate air pressure
- Two non-return valves
- Controls on handlebar, easily accessible.
- Box for transporting tools.
- Three wheels (one adjustable front wheel and two rear drive wheels) with air-filled tyres to allow very tight turns.
- One hydraulic motor on each rear wheel, to overcome steep gradients and guarantee good stability, both straightahead and in curves.
- Hydraulic brake and parking brake on one of rear wheels
- Dimensions: 1,70m x 1,00m x 1,00m high.
- Empty weight: 200 kg approx.
- Supplied with 5m of extension tubing for using the gun where you want.
- The equipment is constructed for spraying pre-mixed solvent and water based paints, including reflective and epoxy paints.
- We do no welding on our tanks after they have been tested



## **SIBELINE 60 I**







### **SIBELINE 60 I**



### Extra manual gun with rigid extension. Pneumatically-controlled disc unit.

- TELESCOPIC UNIT with SELF-LEVELLING wheel.
- TELESCOPIC UNIT WITH SELF-LEVELLING WHEe
- Pneumo-mechanical automatic line marker.
- Spray box to paint linesElectric start.
- Electric start.
- Operator trolley
- Additional 20-litre PED stainless steel tank for coloured paints.
- Flashing light\*
- Illumination light\*.
- Electronic line tracing\*.

### SIBESTAR

- 9 Hp petrol motor, cord starter with automatic rewind, air cooled, silenced, centrifugal clutch disconnects rotating parts at low revs and facilitates starting.
- Quick starting at all temperatures.
- Compressor Capacity 540-440 I/min
- High resistance gun for normal and reflective paint.
- Gun start and stop actioned by pneumatic command with button on handle.
- Spray set with pneumatic gun, telescopic. The gun is easily disconnected to facilitate packing and transport.
- 60 litre capacity stainless steel to PED standard paint tank incorporated stirrer.
- Working pressure 4,5 atmospheres.
- 3,3 litre PED stainless steel air reserve tank
- 3.3 litre capacity PED stainless steel diluter tank for cleaning spray set.
- Two pressure regulators with manometers
- Two certified safety valves
- Pneumatic coupling to regulate air pressure
- Two non-return valves
- Controls on handlebar, easily accessible.
- Three wheels (one adjustable front wheel and two rear drive wheels) with air-filled tyres to allow very tight turns.
- Two hydraulic motors on the two rear wheels, to overcome steep gradients and guarantee good stability, both straightahead and in curves.
- Box for transporting tools, complete with useful tools.
- Hydraulic brake and parking brake on one of rear wheels
- Dimensions: 1,75m x 1,05m x 1,05m high.
- Empty weight: 215 kg approx.
- Supplied with 5m of extension tubing for using the gun where you want.
- The equipment is constructed for spraying pre-mixed solvent and water based paints, including reflective and epoxy paints.



## **SIBELINE 80 I**





### Line marking machines

## **SIBELINE 80 I**





TROLLEY

**OPERATOR** 

FOR





**20-L ADDITIONAL** TANK

**SPRAY BOX TO** PAINT LINES





- Extra manual gun.
- Extra manual gun with rigid extension.
- Pneumatically-controlled disc unit
- TELESCOPIC UNIT with SELF-LEVELLING wheel.
- Pneumo-mechanical automatic line marker.
- Spray box to paint lines
- Electric start.
- **Operator trolley**
- Additional 20-litre PED stainless steel tank for coloured paints.
- Flashing light\*
- Illumination light\*.
- Electronic line tracing\*.

### SIBESTAR

- 13,5 Hp petrol motor, cord starter with automatic rewind, air cooled, silenced, centrifugal clutch disconnects compressor at low revs and facilitates starting.
- Quick starting at all temperatures.
- Compressor Capacity 495-645 I/min. approx.
  - High resistance gun for normal and reflective paint.
- Gun start and stop actioned by pneumatic command with button on handle.
- Spray set with pneumatic gun, telescopic. The gun is easily disconnected to facilitate packing and transport.
- 60 litre capacity stainless steel to PED standard paint tank incorporated stirrer.
- Working pressure 4,5 atmospheres.
- 3,3 litre PED stainless steel air reserve tank
- 3.3 litre capacity PED stainless steel diluter tank for cleaning spray set.
- Two pressure regulators with manometers
- Two certified safety valves
- Pneumatic coupling to regulate air pressure
- Two non-return valves
- Controls on handlebar, easily accessible.
- Three wheels (one adjustable front wheel and two rear drive wheels) with air-filled tyres to allow very tight turns. Two hydraulic motors on the two rear wheels, to overcome steep gradients and guarantee good stability, both straightahead and in curves.
- Box for transporting tools, complete with useful tools.
- Hydraulic brake and parking brake on one of rear wheels
- Dimensions: 1,80m x 1,10m x 1,05m high.
- Empty weight: 235 kg approx.
- Supplied with 5m of extension tubing for using the gun where you want.
- The equipment is constructed for spraying pre-mixed solvent and water based paints, including reflective and epoxy paints.
- We do no welding on our tanks after they have been tested



## **SIBELINE 90 I**





## **SIBELINE 90 I**



UNIT







SELF-LEVELLING

TELESCOPIC UNIT

TROLLEY FOR **OPERATOR** 





- Extra manual gun.
- Extra manual gun with rigid extension.
- Pneumatically-controlled disc unit.
- TELESCOPIC UNIT with SELF-LEVELLING wheel.
- Pneumo-mechanical automatic line marker.
- Spray box to paint lines
- Electric start.
- **Operator trolley**
- Additional 20-litre PED stainless steel tank for coloured paints.
- Flashing light\*
- Illumination light\*.
- Electronic line tracing\*.

### SIBESTAR

- 13,5 Hp petrol motor, cord starter with automatic rewind, air cooled, silenced, centrifugal clutch disconnects compressor at low revs and facilitates starting.
- Quick starting at all temperatures.
- Compressor Capacity 785-1.020 I/min. approx.
- High resistance gun for normal and reflective paint.
- Gun start and stop actioned by pneumatic command with button on handle.
- Spray set with pneumatic gun, telescopic. The gun is easily disconnected to facilitate packing and transport.
- 90 litre capacity stainless steel to PED standard paint tank incorporated stirrer.
- Working pressure 4,5 atmospheres.
- 3,3 litre PED stainless steel air reserve tank
- 3.3 litre capacity PED stainless steel diluter tank for cleaning spray set.
- Two pressure regulators with manometers
- Two certified safety valves
- Pneumatic coupling to regulate air pressure
- Two non-return valves
- Controls on handlebar, easily accessible.
- Three wheels (one adjustable front wheel and two rear drive wheels) with air-filled tyres to allow very tight turns. Two hydraulic motors on the two rear wheels, to overcome steep gradients and guarantee good stability, both straightahead and in curves.
- Box for transporting tools, complete with useful tools.
- Hydraulic brake and parking brake on one of rear wheels
- Dimensions: 1,90m x 1,10m x 1,10m high.
- Empty weight: 260 kg approx.
- Supplied with 5m of extension tubing for using the gun where you want.
- The equipment is constructed for spraying pre-mixed solvent and water based paints, including reflective and epoxy paints.
- We do no welding on our tanks after they have been tested



## L 250



### Line marking machines

L 250



The photo does not represent the standard version.

#### ACCESSORIES AVAILABLE ON REQUEST:

- seconda pistola vernice con comando indipendente.
- Second automatic paint gun with independent control,
- Second automatic glass beads gun with delay valve,
- Discs of different measures (up to 90 cm)
- Pneumatic support for the paint gun,
- Wagon for cones ( I= 145 cm )
- Supplementary tank of 250 I on a back wagon,
- Extensible side arm and tank 26 litres for the premarking,
- Pouring pump,
- Manual paint gun with extension pipes,
- Manual glass beads gun with extension pipes.

### SIBESTAR

#### TECHNICAL CHARACTERISTICS:

- Engine diesel 34 HP (= 25,5 kW), water cooled, endowed with: electric starter, alternator to recharge the battery, fuel tank: 30 I
- Two-cylinder two-stage compressor provided with:delivery 1390 l/min, cast iron cylinders, which assure a better cooling and performance, pressure limiting valve, for the air delivery regulation.
- Pneumatic gun for refractive and non-refractive paints, with shroud system, on fixed support.
- Paint tank. Stainless steel. Capacity: 250 litre.
  Endowed with hydraulic stirrer.
  - Glass beads dispenser with: tank capacity: 100 I, with condensate separator filter.

The position of the tank guarantees a constant feeding of the gun.

Two lateral supports guarantee the safety of the operator and bear the sun-roof; glass beads gun.

The slope and the opening angle of the diffuser are both adjustable; adjustable valve which delays the closing of the beads gun with respect to the paint one; two air compressed tanks guarantee a better cooling of the air itself.

- Negative brakes: the machine stops in case of breakdown or of breaking of a pipe of the hydraulic system.
- Hydraulic drive with two motors directly connected on the rear wheels. Just one lever (joystick) controls: the forward running, the reverse running and the standstill position with the negative brakes.
- Safety device: the engine stops working in case the operator stands up without pulling the lever of the handbrake or in the case the engine compartment is open.
- Steering on the front wheels. POWER
   STEERING ZF
- Steering wheel adjustable longitudinally .
- Seat longitudinally and transversely sliding.
- Section-lining electronic device: 5 digits. It permits to control 3 guns at the same time and can memorize: 8 different section-lining measures ("full-empty"), total kilometres covered by the machine, total metres painted by each single gun ("full"), correction factor of the section "full-empty", the limits of maximum minimum speed: a buzzer ("bip-bip") sounds, in two different ways, when the speed does not respect the pre-established limits.
- Board with warning lights.
- Size: 3450x1100x2400h cm Tare weight: 1300 kg

Traffic Lights



Sibestar traffic lights are constantly evolving so as to be updated for innovations in this sector.

This means better traffic flow and better road safety for the users. In addition to installation, which includes building works if needed, Sibestar guarantees maintenance and support 365 days a year.

### SIBESTAR



### PORTABILE TRAFFIC LIGHTS WITH QUARTZ TIMING



### TRAFFIC LIGHT INFRINGEMENT DETECTOR



VEHICLE SPEED ACTIVATED TRAFFIC LIGHTS



TRAFFIC LIGHTS FOR PEDESTRIAN CROSSING WITH LIGHTS ACTIVATED BY SPEED OF VEHICLES FROM BOTH DIRECTIONS



### TRAFFIC LIGHT FOR ROAD CROSSING BY VISUALLY IMPAIRED PEDESTRIANS





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## PORTABILE UNITS WITH QUARTZ TIMING





## PORTABILE UNITS WITH QUARTZ TIMING





### SIBESTAR

#### TECHNICAL CHARACTERISTICS:

- 12 V DC power supply
- CURRENT DRAWN (max) 2,2 A with E 27 25 W lamps
- RESISTIVE LOAD 12 V 25 W E 27 lamps
- Working time between recharging:
- WITH COLOUR SEQUENCING \*90 hours – continuous use, \*150 hours – daytime use;
- FLASHING \*200 hours continuous use
- WORKING TEMPERATURE from -20 to +60 (°C)
- SYNCHRONISATION MEMORY \*\*min. 30 sec. max 3 hours
- INTERNAL BATTERY Ni-Cd rechargeable (data preserved)

#### LED VERSION

- 12 V DC power supply
- CURRENT DRAWN max 2,2 A
- Working time between recharging:
- WITH COLOUR SEQUENCING \*260 hours continuous use, \*450 hours daytime use;
- FLASHING \*600 hours continuous use

\*with rechargeable 12 Volt 180 Ah automotive batteries in good condition. \*\*depends on the charge level of the Ni-Cd batteries.

Comprises two portable trolleys with electronic control units and stamped polycarbonate lights (3 lights with brighter red), for use in sites with continuous traffic, with two identical and independent light units which don't need cables to connect them. Set-up is very simple, with the equipment being designed to work with two 12V automotive batteries (one per trolley). Each unit has wheels and is easily moved and transported, thanks to its low weight and compactness. The trolley is made of 15/10 steel sheeting over a tubular 15/10 steel structure and painted with yellow epoxy powder paint (RALL-2003). Complies to EEC regulations:

Machinery directive 89/392/EEC

73/23/EEC-93/68/EEC Electrical Equipment designed for use within certain voltage limits.

Harmonised IEC standards complying with:

EN292/2-1991 Machine safety standard.

EN 60204/1-1993 Safety of machinery. Electrical equipment of machines.

## **SEMAPHORE PORTABLE SIBESUATOP09**

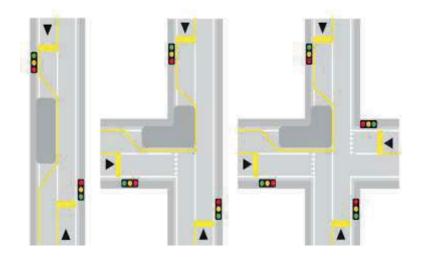




## **SEMAPHORE PORTABLE SIBESUATOP09**



### Usage examples



### SIBESTAR

This semaphore mobile is the only one who can manage 4 roads without linking the semaphores with cables, managed with a programmable quartz control unit with a remote control.

#### **TECHNICAL CHARACTERISTICS**

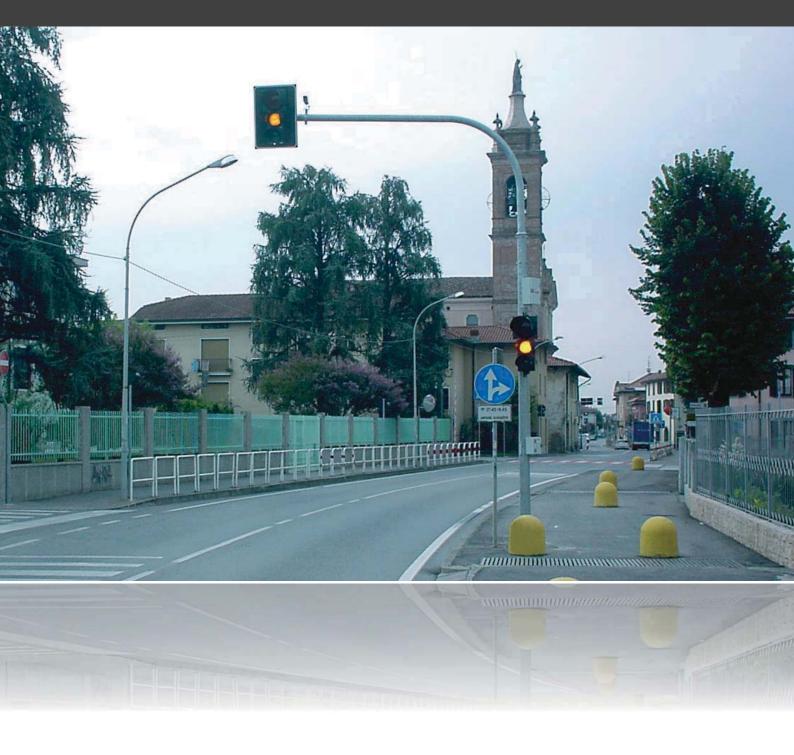
- The blinkers are led and allow a reduced power consumption and long life. You can use for 4-way crosses, crosses a T e one-way alternating.
- led lanterns with red plus with diameter of 30 cm, yellow, and green with a diameter of 20 cm, homologated according uni En12368;
- adjustable height: from 150 cm to 200 cm with extractable pin;
- measures of the base port battery: width 60 cm, depth of 37 cm and height of 33 cm, fitted with wheels for rapid moves;
- weight per item: 25 kg;
- efficient power consumption: 150 hours continuous
  use with a 12 v battery 90 ah.

#### CERTIFICATION

The semaphore mobile SIBESUATOP09 responds to all Italian ministerial certifications required.



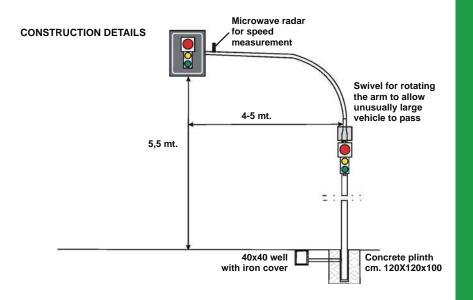
## VEHICLE SPEED ACTIVATED TRAFFIC LIGHTS





### Traffic lights systems

## VEHICLE SPEED ACTIVATED TRAFFIC LIGHTS





**Control panel** 

### SIBESTAR

- An effective way of limiting speeds
- Use is advised particularly near junctions or dangerous bends, at the start of built-up areas, near schools, pedestrian crossings, etc
- The traffic light, normally mounted on a single pole, detects the arriving vehicle's speed with a microwave radar.
- If the speed exceeds the preset limit, the light changes from green to amber and then red, thereby penalizing the undisciplined driver.
- The times of the phases can be programmed, and by altering the time on red, it's possible to stop drivers or simply slow them down, to avoid noise and environmental pollution.
- Our system has been tested by various councils with more than positive results and no particular maintenance is needed.
- To ensure good functioning, it's advisable to install the detector on a straight section of road at least 130m in length.
- A solar panel powered version is also available.

TRAFFIC LIGHTS FOR PEDESTRIAN CROSSING WITH LIGHTS ACTIVATED BY SPEED OF VEHICLES FROM BOTH DIRECTIONS





### Traffic lights systems

### TRAFFIC LIGHTS FOR PEDESTRIAN CROSSING WITH LIGHTS ACTIVATED BY SPEED OF VEHICLES FROM BOTH DIRECTIONS



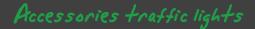
Radar



**Control panel** 

### SIBESTAR

- An effective way of limiting speeds
- Use is advised particularly near junctions or dangerous bends, at the start of built-up areas, near schools, pedestrian crossings, etc
- The traffic light can detect the arriving vehicle's speed with a microwave radar..
- If the speed exceeds the preset limit, the light changes from green to amber and then red, thereby penalizing the undisciplined driver.
- The times of the phases can be programmed, and by altering the time on red, it's possible to stop drivers or simply slow them down, to avoid noise and environmental pollution.
- Our system has been tested by various councils with more than positive results and no particular maintenance is needed.
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## TRAFFIC LIGHT INFRINGEMENT DETECTOR







## TRAFFIC LIGHT INFRINGEMENT DETECTOR



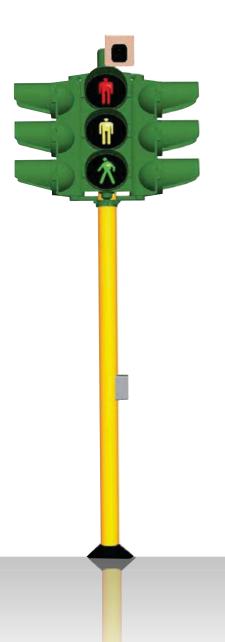
### SIBESTAR

- Traffic light state recording with translator connected to light electrical supply;
- Under-road inductive sensor detects vehicle passage;
- Minimum distance between infringing vehicles 1,3 sec;
- Automatic stop when film exhausted;
- Data captured photographically: vehicle photographed from behind, traffic light on red, the tenths of seconds from start of red phase, month, day of month, day of week, hours, minutes and seconds;
- Allows photographic documentation of infringement;
- Component homologation documented.





## TRAFFIC LIGHT FOR ROAD CROSSING BY VISUALLY IMPAIRED PEDESTRIANS





**Request device** 



**Acoustic device** 



This solution is suitable for pedestrian crossings with traffic lights to signal it's safe to cross to visually impaired persons according to Art. 6.4 of D.P.R. (Presidential Decree) 24 July 1966 no. 503, of the Italian Highway Code Art. 41 comma 5 and in compliance with the relevant legislation for implementation of Art. 162 comma 5.

### APPLICABLE LAW

The equipment complies with the following laws IEC 214-7 proposal Law 447 of 26-10-1995 and related D.P.C.M. – 14 November 97

### **GENERAL CHARACTERISTICS**

The equipment has two parts: • the request-to-cross device consists of: a button for the normally sightedpersone's request for crossing, a light signal to confirm that the request has been accepted, a request button for visually-impaired persons, and an audio signal to confirm for visually impaired persons that the request has been accepted;

• the safe-to-cross acoustic device consists of:

a microprocessor controller, an ambient noise sensor, an audio transducer which emits the safe-to-cross signal. The two parts are functionally and electrically integrated and, as required by law, cannot function disconnected one from the other.

Each part is mounted in its own housing, one suitable for mounting at the top of the traffic light pole near the lights themselves, the other, for the request to cross, on the pole at a convenient height.

### FUNCTIONAL CHARACTERISTICS

The pedestrian crossing, as required by law, must have on both sides of the road a request-to-cross and a safe-tocross device, connected in such a way that, when crossing is requested, the safe-to-cross signal is emitted on both sides of the road.

#### **REQUEST DEVICE**

The request device is designed for two types of users, normally-sighted and visually impaired pedestrians. The request inserted by normally-sighted persons is signalled to the traffic light controller, which initiates the changing of the lights and also sends a feedback signal which lights up the signal to show that the request to cross has been accepted.

The request by visually impaired persons is signalled to the acoustic device mounted on the same pole. The request is memorised, a "request accepted" signal is sent back to the request device which emits an acoustic signal as per paragraph 4.2. of IEC standards 214-7; the request device mounted on the opposite side of the road sends the request to its corresponding acoustic device; the traffic light regulator then proceeds as for a normally sightedperson's request.

In particular when the request by a visually-impaired person is inserted when the visual signal says it's safe to cross, the system stores this request until it can be inserted in a new crossing cycle.

#### ACOUSTIC DEVICE

The acoustic device emits 60 beeps a minute when it's safe to cross (green visual signal) and 120 beeps a minute during the amber phase. The unit beeps only when there is a crossing request and the sound volume can be regulated, for the whole of the duration of the acoustic signal, so that it is regulated relative to the background noise level present during the duration of the acoustic signal.

The acoustic signal is tied in to the green phase of the traffic lights, so that is a request to cross is inserted when the lights are on green, the request will be satisfied during the successive traffic light cycle.

For every crossing request received, provided it is possible to satisfy the request, the unit sends a signal to the request device in order that the audio "request accepted" signal is activated, as well as sending a crossing request to the traffic light controller.

#### SAFETY

#### **REQUEST DEVICE**

The request device does not emit the "request accepted" sound if the acoustic device cannot comply with the request.

#### **ACOUSTIC DEVICE**

The device is connected in parallel with the traffic lights themselves, so that the sound and light signals are always synchronized.

The acoustic signal is delayed compared to the green safe-to-cross signal to allow safety checks.

The acoustic signal doesn't sound if: there is a power failure (automatic, since the acoustic signal is connected in parallel with the green and amber lights of the pedestrian crossing)

voltage to red pedestrian crossing light above the legal maximum for a signal which, for safety, must be OFF (50 V) voltage to green and amber pedestrian crossing lights below the legal minimum for a signal which, for safety, must be ON (160 V) flashing lights.

### TRAFFIC LIGHT FOR ROAD CROSSING BY VISUALLY IMPAIRED PEDESTRIANS



#### TECHNICAL CHARACTERISTICS:

CROSSING REQUEST ACCEPTED SIGNAL

- The signal has the following characteristics:
- Sound frequency 2KHz +- 10%
- Audio level 50 dBA at 1 metre

#### SAFE TO CROSS SIGNAL

- The signal has the following characteristics:
- During the green phase:
- Beeps per minute 60 +- 1% with duty cycle 50% +- 1%
- Sound frequency 800 Hz +- 10% with 20
   Hz modulation
- During the amber phase:
- Beeps per minute 120 +- 1% with duty cycle 50% +- 1%
- Sound frequency 800 Hz +- 10% with 20 Hz modulation
- Audio level regulated according to ambient noise level:
- On ambient noise 5 10 dB
- minimum 30 dBA
- Maximum 60 dBA (as per table B of DPCM 14-11-1997)

### CONSTRUCTION CHARACTERISTICS OF ACOUSTIC DEVICE

- Plastic housing IP55 protection
- REQUEST DEVICE
- Plastic housing IP55 protection
- Including:
- Button with anti-vandal construction for normal pedestrian request
- Printed letters and symbols
- Confirmation of acceptation for crossing request with green high intensity LEDs
- Concealed button for crossing request for visually-impaired persons with mechanical characteristics as per IEC 214-7
- Direction arrow with mechanical characteristics as per IEC 214-7
- Cable entrance/exit with protection collar for where cables pass into pole, sealable after mounting to avoid water and dust ingress
- Fixing to pole with two M6 bolts screwed into holes provided, or with "band-it" ties



## SECOND COUNTER



## **SECOND COUNTER**



#### SIBESTAR

#### **TECHNICAL CHARACTERISTICS:**

- This counter is an addition to traffic lights, to provide an indication to drivers and pedestrians of how long each traffic light phase lasts.
- The second counter shows, with a countdown, the duration of the green GO phase and the red STOP phase, helping to optimise the phases while avoid the risk of infringement of the rules of the road.
- Thanks to the technology used in this product, the average life of the lights used in the counter is approximately 10 years. This is because, in place of the normal lights, modern high-illumination long-life LEDs are used. If one or more LED should fail, the device can still be used. The LED technology, as well, allows a marked reduction in energy consumption with each device consuming only 10W.
- Installation and programming are extremely easy, since the device can be mounted independently of the traffic lights structure, and its sophisticated controller. The device calculates itself the red and green times, programming itself after the first two light cycles.

# **RADAR SPEED REDUCTION SIGNS**



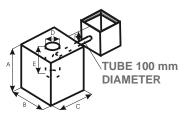




# **RADAR SPEED REDUCTION SIGNS**



#### **BASE STRUCTURE**



WELL, INTERNAL DIMENSIONS 40 X 40 cm

PLINTH 250 kg/m3 CONCRETE 100mm DIAMETER TUBE FOR

ELECTRICAL CONNECTION FROM THE WELL TO THE PANEL

A= 0,6 MT. B=C= 0,5 MT. D= 200 MM F= 20 CM

#### SIBESTAR

#### **TECHNICAL CHARACTERISTICS:**

- Three figure amber LED display, 28,5 cm high;
- Visible at more than 150 m;
- Automatic brightness adjustment;
- Integrated radar sensor;
- Sealed glass fibre hosing with double opening doors;
- Speeds detected are memorised;
- Software for managing statistics;
- 102mm diameter galvanised pole;
- Can be powered from photovoltaic panel.



# SPEED BUMPS SAFETY







## **SPEED BUMPS SAFETY**



### SIBESTAR

The speed bumps are made of vulcanized natural rubber, highlighted by elastoplastic laminated yellow high reflectivity, with non-slip indentations.

Have elements with tongue and female, they are supplied with screw anchors for fixing. The bumps are approved and meet the specifications of the Implementing Regulation and implementation of the Italian new Road Code (DPR 16/12/1992 N 495 Art. 179).

They are available in three formats:

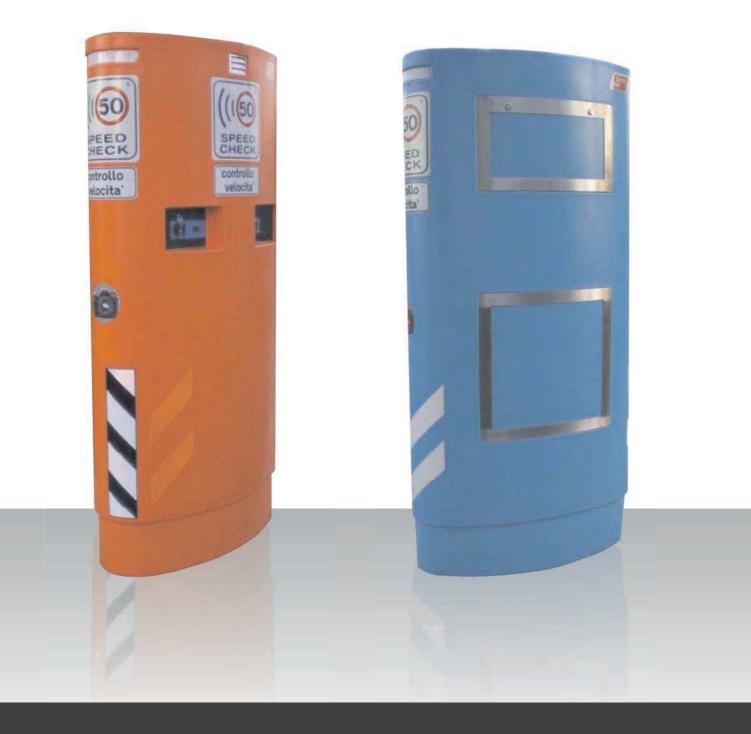
Used on roads with speed limits up to 50 km / h Module by 48.5 cm x 61 x 3 hours; Terminal male / female 22,5x 61 cm x 3 h.

Used on roads with speed limits up to 40 km / h Module 50 cm x 90 x 5 h; Terminal male / female 30 x 90 x 5 h.

Used on roads with speed limits up to 30 km / h Form male 50 cm x 60 x 7 h; Module female 50 cm x 60 x 7 h; Male terminal 30 cm x 60 x 7 h; Female terminal 30 cm x 60 x 7h.



# SPEED CHECK





A device for slowing the rate "Speed Check SC-180" R, high visibility, arranged for housing the equipment for the electronic speed control.

#### EQUIPMENT

The device is supplied with the following facilities:

- System for fastening directly on sidewalk or compact ground with threaded rods and chemical stop.

- Applications reflective for high visibility and signaling (NB to improve the preventive effect of the system, on each cabin inside the logo SPEED CHECK, is repeated the speed limit provided in that section of the road).

- All the openings of the cabin where it is provided for the connection of components that "look" the outside (the body of the detector, camera, any flash), are equipped with a compact polycarbonate plate and / or PVC foam, very durable, easily interchangeable without risk of injury (not sharp).

- The openings for access to the interior of the device, for assembly, for maintenance of the apparatus, for the installation and uninstallation of the equipment for detecting the speed, are constituted by two doors, completely removable, of the same plastic material of the cabin and beading wire stainless steel or galvanized; the upper door has two locks with cylinders in KA (openable with keys having the same encryption), the lower one is provided with latches operable from the inside through the upper opening.

- Kit for housing the instrumentation for detecting the speed (by means of appropriate connectors).

#### **MEDIA FOR DETECTION EQUIPMENT (OPTIONAL)**

The kit for housing the instrumentation for the speed detection is made from two stainless steel shelves (for detector and CPU) and one or two support bars for the photographic equipment; It is normally recommend the purchase of 1 set for each series of cabs.







#### LIGHTING (for night visibility)

Lighting in mass of the cabin with 230 volt lamps connected to the network of public lighting





#### ALTERNATIVE

LED lighting with intermittence, powered by storage batteries, solar panel built into the system block with twilight function applied on the cab roof.





## **SPEED CHECK**

### SIBESTAR

#### **TECHNICAL FEATURES**

- Elliptical external dimensions (mm): 1,800 h / I 880 / p 450; made of polyethylene, thickness 5 mm ca. Suitable housing of all types of equipment for detecting speed (speed camera, Velomatic, Speedophot, etc.).
- Plastic body, very resistant, non-magnetic, dielectric, thermal insulation, radar transparent.
- The extreme flexibility of the materials, their mechanical characteristics and the lightness not constitute a danger in case of accidental impact

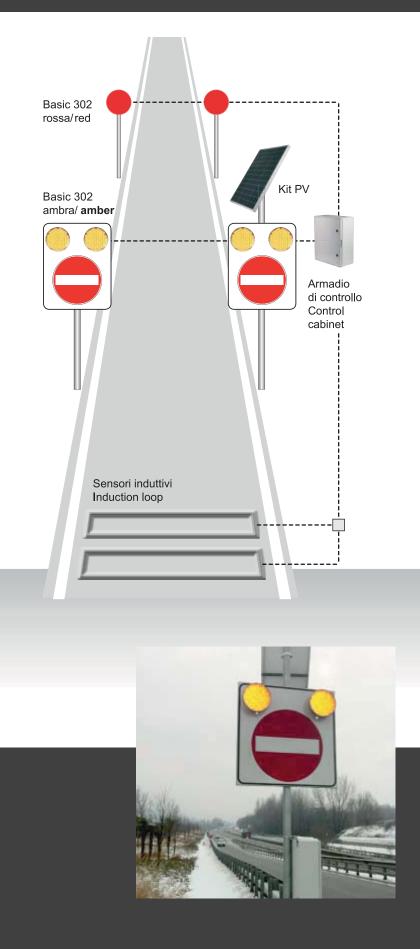
# **DETECTING VEHICLES IN THE WRONG**







## **DETECTING VEHICLES IN THE WRONG**



#### SIBESTAR

System able to detect vehicles driving in the wrong way using induction loops or radar. Photovoltaic power supply, 12 VDC or 230 VAC. Control cabinet containing the CPU for managing and storing events, GPS module and control unit for LED flashers.

A wireless connection between the control cabinet and flashers is available.

#### FEATURES

- Vehicle detection by inductive-loop traffic detectors or radar.
- Detas D-Power LED flashers (Basic 302/201/200) or traffic light available.
- Different types of flashing (50%, 10% and triflash) are available for the amber flashers.
- The red steady lights give the last order to stop immediately.
- Sends an SMS in case of anomaly, malfunction or low battery.
- Different working logics are available and can be specified for particular applications.
- The system is equipped with a data-logger that stores data of the wrong way events on an USB drive in ASCII CSV format (can be opened using Excel).



# **DETECTOR PEDESTRIANS**







## **DETECTOR PEDESTRIANS**

PPL IC ATIO



### SIBESTAR

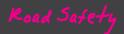
Safety system for crosswalks with pedestrian radar and flashing /ights. The system stifl lo 1wrk when a pedestri approach lo the crosswalks zone.

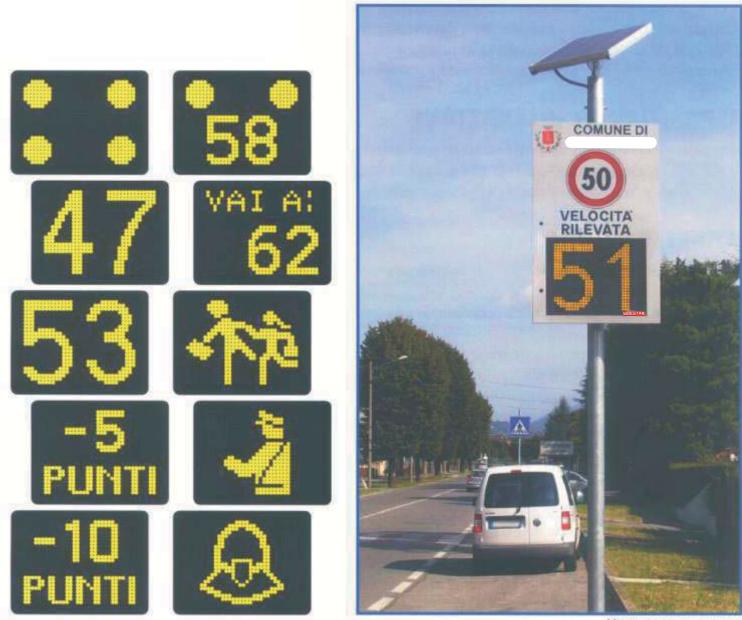
Safety system for crosswalks with pedestrian radar and flashing lights. The system start to work when a pedestrian approach to the crosswalks zone. The lights flash on both sides of the road through a radio wireless transmission. Double flashing lights with LED Basic200 certificated to EN12352 class L8H (steady light) - Other kind of lights on request.

#### **POWERED BY**

- photovoltaic with 20 or 50W module - switch mode power supply IP55 230/12V

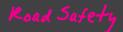
 kit for twilight powering systems
 No wiring inside the road.
 Easy installation on existing signs.
 Possibility to connect the new in ground power markers.





VERSIONE CON PALO CENTRALE





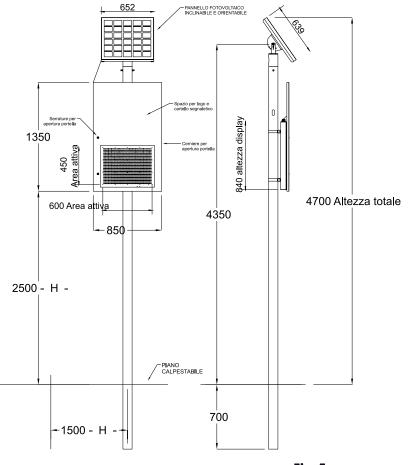


Fig.5.

### SIBESTAR

The speed display model DSRF must be installed about 2.5 metres above the ground and at about 1.5 metres from the edge of the road.

#### SPECIFICATIONS FOR THE INSTALLATION

The speed display must be installed so that the sign itself is perpendicular to the direction of the road. The room in front of the sign must be free of obstacles (trees, other signs and so on), which could prevent a correct measurement of the speed.

In case of doubts, we suggest to contact the producer of the sign, in order to find the best solution for the installation.



### SIBESTAR

#### ESEMPI DI MESSAGGI VISUALIZZABILI

MOD. DSR3 FTV

SEQUENZA B

	DISPLAY SPENTO
	VELOCITÁ ENTRO IL LIMITE PEDONALE (10 Km/h)
	IL DISPLAY E' IN STAND-BY (IN ASSENZA DI RILEVAMENTO VEICOLI)
17	CARATTERE H 45 cm
Δ1	VELOCITÁ ENTRO IL LIMITE CONSENTITO (50 Km/h)
<b>T /</b>	LETTURA VARIABILE SECONDO VELOCITA' VEICOLO
	CARATTERE H 45 cm
5	VELOCITÁ DI 10 Km/h IN PIU' OLTRE IL LIMITE CONSENTITO (50 Km/h)
$\overline{\mathbf{v}}$	LETTURA VARIABILE LAMPEGGIANTE SECONDO VELOCITA' VEICOLO
- 5 PUNTI	CARATTERI H 13 cm / 30 cm
62	VELOCITÁ ECCEDENTE DI 11 Km/h IL LIMITE CONSENTITO (50 Km/h) (DA 61Km/h A 90Km/h)
	- 5 PUNTI LAMPEGGIANTE CON LETTURA VARIABILE DELLA VELOCITA'
- 10 PUNT	CARATTERI H 13 / 30 cm
93	VELOCITÀ ECCEDENTE DI 41 Km/h IL LIMITE CONSENTITO (50 Km/h) (DA 91 Km/h)
	- 10 PUNTI LAMPEGGIANTE CON LETTURA VARIABILE C

#### MOD. DSR3 FTV

SEQUENZA C

	DISPLAY SPENTO
	VELOCITÀ ENTRO IL LIMITE PEDONALE (10 Km/h)
	IL DISPLAY E' IN STAND-BY (IN ASSENZA DI RILEVAMENTO VEICOLI)
17	CARATTERE H 45 cm
Δ1	VELOCITÀ ENTRO IL LIMITE CONSENTITO (50 Km/h)
<u> </u>	LETTURA VARIABILE SECONDO VELOCITA' VEICOLO
<b>E O</b>	CARATTERE H 45 cm
5	VELOCITÀ OLTRE IL LIMITE CONSENTITO (50 Km/h)
$\overline{\mathbf{v}}$	LETTURA VARIABILE LAMPEGGIANTE SECONDO VELOCITA: VEICOLO
- 5 PUNTI	CARATTERI H 13 cm / 30 cm
62	VELOCITÀ ECCEDENTE DI 10 Km/h IL LIMITE CONSENTITO (50 Km/h)
02	- 5 PUNTI LAMPEGGIANTE CON LETTURA VARIABILE DELLA VELOCITA'
-10	CARATTERI H 18 cm / 18 cm
	VELOCITÁ ECCEDENTE DI 40 Km/h IL LIMITE CONSENTITO (50 Km/h)
PHNTI	LETTURA LAMPEGGIANTE



#### MOD. DSR3 FTV

#### SEQUENZA C3

	DISPLAY SPENTO
	VELOCITÀ ENTRO IL LIMITE PEDONALE (10 Km/h)
	IL DISPLAY E' IN STAND-BY (IN ASSENZA DI RILEVAMENTO VEICOLI)
7	CARATTERE H 45 cm
11	VELOCITÁ ENTRO IL LIMITE CONSENTITO (50 Km/h)
	LETTURA VARIABILE SECONDO VELOCITA VEICOLO
0	CARATTERE H 45 cm
1 3	VELOCITÁ OLTRE IL LIMITE CONSENTITO (50 Km/h)
~	LETTURA VARIABILE LAMPEGGIANTE SECONDO VELOCITA' VEICOLO
PUNT	CARATTERI H 13 cm / 30 cm
67	VELOCITÁ ECCEDENTE DI 10 Km/h IL LIMITE CONSENTITO (50 Km/h)
2	- 5 PUNTI LAMPEGGIANTE CON LETTURA VARIABILE DELLA VELOCITA
-5	CARATTERI H 18 cm / 18 cm
<u> </u>	VELOCITÀ ECCEDENTE DI 20 Km/h IL LIMITE CONSENTITO (50 Km/h)
UNT	LETTURA LAMPEGGIANTE
-10	CARATTERI H 18 cm / 18 cm
	VELOCITÁ ECCEDENTE DI 40 Km/h IL LIMITE CONSENTITO (50 Km/h)
UNII	LETTURA LAMPEGGIANTE

#### MOD. DSR3 FTV

SEQUENZA D

	DISPLAY SPENTO
	VELOCITÁ ENTRO IL LIMITE (40 Km/h)
	IL DISPLAY E' IN STAND-BY (IN ASSENZA DI RILEVAMENTO VEICOLI)
17	CARATTERE H 45 cm
Δ1	VELOCITÁ ENTRO IL LIMITE CONSENTITO (50 Km/h)
ΤI	LETTURA VARIABILE SECONDO VELOCITA' VEICOLO
	CARATTERE H 45 cm
5	VELOCITA OLTRE IL LIMITE CONSENTITO (50 Km/h)
$\mathcal{I}\mathcal{I}$	LETTURA VARIABILE LAMPEGGIANTE SECONDO VELOCITA' VEICOLO
- 5 PUNT	CARATTERI H 13 cm / 30 cm
62	VELOCITÁ ECCEDENTE DI 10 Km/h IL LIMITE CONSENTITO (50 Km/h)
02	- 5 PUNTI LAMPEGGIANTE CON LETTURA VARIABILE DELLA VELOCITA'
- 10 PUNT	CARATTERI H 13 cm / 30 cm
02	VELOCITÁ ECCEDENTE DI 40 Km/h IL LIMITE CONSENTITO (50 Km/h)
95	LETTURA LAMPEGGIANTE CON LETTURA VARIABILE DELLA VELOCITA

### SIBESTAR



#### MOD. DSR3 FTV

SEQUENZA D2

	DISPLAY SPENTO
	VELOCITÁ ENTRO IL LIMITE (40 Km/h)
	IL DISPLAY E' IN STAND-BY (IN ASSENZA DI RILEVAMENTO VEICOLI)
1 7	CARATTERE H 45 cm
<u> </u>	VELOCITÁ ENTRO IL LIMITE CONSENTITO (50 Km/h)
T /	LETTURA VARIABILE SECONDO VELOCITA' VEICOLO
	CARATTERE H 45 cm
<b>n</b> 1	VELOCITÁ OLTRE IL LIMITE CONSENTITO (50 Km/h)
$\overline{\mathbf{u}}$	LETTURA VARIABILE LAMPEGGIANTE SECONDO VELOCITA' VEICOLO
- 5 PUNT	CARATTERI H 13 cm / 30 cm
62	VELOCITÁ ECCEDENTE DI 10 Km/h IL LIMITE CONSENTITO (50 Km/h)
02	+ 5 PUNTI LAMPEGGIANTE CON LETTURA VARIABILE DELLA VELOCITA'
- 10 PUNT	CARATTERI H 13 cm / 30 cm
93	VELOCITÀ ECCEDENTE DI 40 Km/h IL LIMITE CONSENTITO (50 Km/h)
93	- 10 PUNTI LAMPEGGIANTE CON LETTURA VARIABILE DELLA VELOCITA
-10	CARATTERI H 18 cm / 18 cm
	VELOCITÁ ECCEDENTE DI 60 Km/h IL LIMITE CONSENTITO (50 Km/h)
PUNI	LETTURA LAMPEGGIANTE

#### MOD. DSR3 FTV

SEQUENZA D3

	DISPLAY SPENTO
	VELOCITÀ ENTRO IL LIMITE (10 Km/h)
	IL DISPLAY E IN STAND-BY (IN ASSENZA DI RILEVAMENTO VEICOLI)
4 7	CARATTERE H 45 cm
μ.	VELOCITÀ ENTRO IL LIMITE CONSENTITO (50 Km/h)
Т	LETTURA VARIABILE SECONDO VELOCITA: VEICOLO
- 0	CARATTERE H 45 cm
<u> </u>	VELOCITÀ OLTRE IL LIMITE CONSENTITO (50 Km/h)
	LETTURA VARIABILE LAMPEGGIANTE SECONDO VELOCITA' VEICOLO
5 PUNT	CARATTERI H 13 cm / 30 cm
67	VELOCITÀ ECCEDENTE DI 10 Km/h IL LIMITE CONSENTITO (50 Km/h)
02	- 5 PUNTI LAMPEGGIANTE CON LETTURA VARIABILE DELLA VELOCITA'
10 PUNT	CARATTERI H 13 cm / 30 cm
02	VELOCITÀ ECCEDENTE DI 40 Km/h IL LIMITE CONSENTITO (50 Km/h)
93	- 10 PUNTI LAMPEGGIANTE CON LETTURA VARIABILE DELLA VELOCITA
-10	CARATTERI H 18 cm / 18 cm
	VELOCITÁ ECCEDENTE DI 60 Km/h IL LIMITE CONSENTITO (50 Km/h)
runi	LETTURA LAMPEGGIANTE





#### MOD. DSR3 FTV

SEQUENZA J

	DISPLAY SPENTO
	VELOCITÀ ENTRO IL LIMITE PEDONALE (10 Km/h)
	IL DISPLAY E' IN STAND-BY (IN ASSENZA DI RILEVAMENTO VEICOLI)
VAI A:	CARATTERI H 13 cm / 30 cm
20	VELOCITÁ ENTRO IL LIMITE CONSENTITO (50 Km/h)
20	LETTURA VARIABILE SECONDO VELOCITA' VEICOLO
	LANTERNE diametro 13 cm; CARATTERI H 30 cm
FO	VELOCITÁ OLTRE IL LIMITE CONSENTITO (50 Km/h)
20	LANTERNE LAMPEGGIANTI CON LETTURA VARIABILE DELLA VELOCITA'
- 5 PUNTI	CARATTERI H 13 cm / 30 cm
62	VELOCITÀ ECCEDENTE DI 10 Km/h IL LIMITE CONSENTITO (50 Km/h)
02	- 5 PUNTI LAMPEGGIANTE CON LETTURA VARIABILE DELLA VELOCITA
	CARATTERI H 13 cm
- 5 PUNTI	VELOCITÁ ECCEDENTE DI 20 Km/h IL LIMITE CONSENTITO (50 Km/h)
	- 5 PUNTI LAMPEGGIANTE

#### MOD. DSR3 FTV

SEQUENZA L

	DISPLAY SPENTO
	VELOCITÁ ENTRO IL LIMITE PEDONALE (10 Km/h)
	IL DISPLAY E' IN STAND-BY (IN ASSENZA DI RILEVAMENTO VEICOLI)
AI A:	CARATTERI H 13 cm / 30 cm
38	VELOCITÁ ENTRO IL LIMITE CONSENTITO (50 Km/h)
30	LETTURA VARIABILE SECONDO VELOCITA' VEICOLO
	LANTERNE diametro 13 cm; CARATTERI H 30 cm
58	VELOCITÁ OLTRE IL LIMITE CONSENTITO (50 Km/h)
20	LANTERNE LAMPEGGIANTI CON LETTURA VARIABILE DELLA VELOCITA'
5 PUNTI	CARATTERI H 13 cm / 30 cm
67	VELOCITÁ ECCEDENTE DI 10 Km/h IL LIMITE CONSENTITO (50 Km/h)
02	- 5 PUNTI LAMPEGGIANTE CON LETTURA VARIABILE DELLA VELOCITA
10 PUNTI	CARATTERI H 13/30 cm
	VELOCITÁ ECCEDENTE DI 40 Km/h IL LIMITE CONSENTITO (50 Km/h)
93	- 10 PUNTI LAMPEGGIANTE CON LETTURA VARIABILE DELLA VELOCITA
	VELOCITÁ ECCEDENTE DI 80 Km/h IL LIMITE CONSENTITO (50 Km/h)
	IL DISPLAY E' ACCESO MA NON CI SONO SCRITTE

### SIBESTAR



#### MOD. DSR3 FTV

SEQUENZA 12



#### SEQUENZA G

	LANTERNE LAMPEGGIANTI Ø 19 cm	
	FUNZIONAMENTO ALTERNANTE 2 + 2	
• •	LETTURA SEMPRE ATTIVA	
17	CARATTERE H 45 cm	_
<u>ц</u>	VELOCITÁ ENTRO IL LIMITE CONSENTITO (50 Km/h)	
т і	LETTURA VARIABILE SECONDO VELOCITA' VEICOLO	
- 0	CARATTERE H 45 cm	_
<b>n</b> 4	VELOCITÁ OLTRE IL LIMITE CONSENTITO (50 Km/h)	
$\overline{}$	LETTURA VARIABILE LAMPEGGIANTE SECONDO VELOCITA' VEICOLO	_
-5	CARATTERI H 18 cm / 18 cm	-
	VELOCITÀ ECCEDENTE DI 10 Km/h IL LIMITE CONSENTITO (50 Km/h)	
PUNT	LETTURA LAMPEGGIANTE	
-10	CARATTERI H 18 cm / 18 cm	_
	VELOCITÁ ECCEDENTE DI 40 Km/h II, LIMITE CONSENTITO (50 Km/h)	
PUNT	LETTURA LAMPEGGIANTE	

#### MOD. DSR3 R 230

SEQUENZA H

	LANTERNE LAMPEGGIANTI Ø 19 cm
	FUNZIONAMENTO ALTERNANTE 2 + 2
• •	LETTURA SEMPRE ATTIVA
AI A:	CARATTERI H 13 cm / 30 cm
20	VELOCITÀ ENTRO IL LIMITE CONSENTITO (50 Km/h)
20	LETTURA VARIABILE SECONDO VELOCITA' VEICOLO
	LANTERNE diametro 13 cm; CARATTERI H 30 cm
FO	VELOCITÀ OLTRE IL LIMITE CONSENTITO (50 Km/ti)
20	LANTERNE LAMPEGGIANTI CON LETTURA VARIABILE DELLA VELOCITA
5 PUNTI	CARATTERI H 13 cm / 30 cm
67	VELOCITÀ ECCEDENTE DI 10 Km/h IL LIMITE CONSENTITO (50 Km/h)
02	+ 5 PUNTI LAMPEGGIANTE CON LETTURA VARIABILE DELLA VELOCITA'
- 10 PUNTI	CARATTERI H 13 / 30 cm
02	VELOCITÀ ECCEDENTE DI 40 Km/h IL LIMITE CONSENTITO (50 Km/h)
93	- 10 PUNTI LAMPEGGIANTE CON LETTURA VARIABILE DELLA VELOCITA





#### MOD. DSR3 FTV

SEQUENZA N



IL DISPLAY E' IN STAND-BY (IN ASSENZA DI RILEVAMENTO VEICOLI) CARATTERE H 45 cm VELOCITÀ ENTRO IL LIMITE CONSENTITO (50 Km/h) LETTURA FISSA

VELOCITÀ ENTRO IL LIMITE PEDONALE (10 Km/h)

DISPLAY SPENTO

CARATTERE H 45 cm VELOCITÀ OLTRE IL LIMITE CONSENTITO (50 Km/h) LETTURA LAMPEGGIANTE

#### MOD. DSR3 FTV

SEQUENZA N6

	DISPLAY SPENTO
	VELOCITÁ ENTRO IL LIMITE (10 Km/h)
	IL DISPLAY E' IN STAND-BY (IN ASSENZA DI RILEVAMENTO VEICOLI)
47	CARATTERI H 13 cm
CENTRO	VELOCITÀ ENTRO IL LIMITE CONSENTITO (50 Km/h)
ABITATO	TESTO FISSO
52	CARATTERI VELOCITA' H 26 cm & CARATTERI TESTO H 13 cm
33	VELOCITÁ OLTRE IL LIMITE CONSENTITO (50 Km/h)
RALLENTA	TESTO "RALLENTA" LAMPEGGIANTE

#### MOD. DSR3 FTV

SEQUENZA O2

ATTENTO CENTRO ABITATO	CARATTERE H 13 cm DA 0 A AL LIMITE CONSENTITO (50 Km/h) TESTO FISSO	
Â	VELOCITA' COMPRESA FRA I 51Km/h e i 60Km/h	
VAI TROPPO VELOCE	CARATTERE H 13 cm VELOCITA' COMPRESA FRA I 61Km/h e i 70Km/h TESTO FISSO	
N.	VELOCITA' SUPERIORE I 70Km/h	





# SIGNAGE KIT FOR DRIVING SCHOOL





# SIGNAGE KIT FOR DRIVING SCHOOL



### SIBESTAR

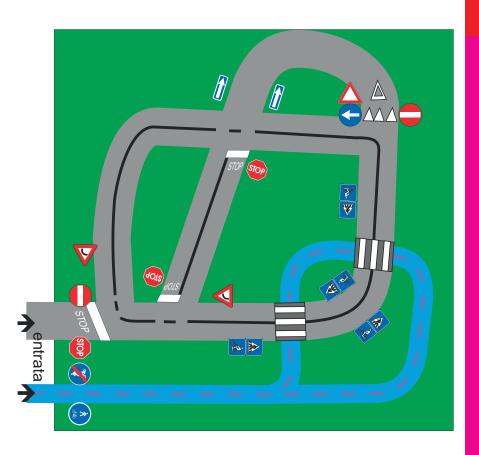
The set useful to form various road routes to run courses in driving school, it is formed by signals poles and stand heavier plastic, and PVC sheets printed.

The pole of square tube of 5 cm x 5 2 meters tall including signal, weighs only 3 kg being more secure traditional signs rollover.

The base ballasting weighs 15 kg and no sharp edges.

The printed fabric is soft pvc weighing 600 grams per square meter and it is printed with measuring  $135 \times 250$  cm. We can create any shape Code Road for both signals for the sheets that form the signage horizontal.

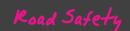
# SIGNAGE KIT FOR DRIVING SCHOOL





### SIBESTAR

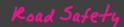
The diagram were used nr. 6 sheets (3 stops, 2 pedestrian crossings and 1 above), and nr. 16 plants signage (3 stops, 2 dangerous curve, 1 start track pedestrian, bicycle and pedestrian path one end, 2-way streets, 2 bans, 1 double with priority and obligation direction, with 4 double crossing pedestrian and cycle crossing). To complete the course, optional We can offer cones, poles, base and PVC chain.



# SIGNAL FOR ICE ON THE ROAD





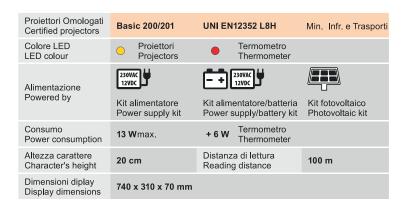


## SIGNAL FOR ICE ON THE ROAD





Termometro e sonda



### SIBESTAR

TempoFlash is a safety device which advise the road users about the ice condition of the road surface. When the outer temperature goes below 3°C the LED flashing double system starts to flash.

The temperature can also be displayed. Available version with an high precision temperature probe to insert directly into the ground.

The system send an SMS at a set temperature and can be used in "remote control mode" at any time to obtain information (temperature, system status etc.).

Horizontal and Vertical Road Markings



To complete Sibestar's overall package for road safety, beyond assistance and installation, we produce horizontal and vertical road signs and markings (design and installation of road signs and horizontal markings) selling products all conforming to D.P.R. (Presidential Decree) 495 of 16/12/1992 and subsequent amendments. Road signs is CE marked according to EN 12899-1:2007 (in Italy it was adopted as UNI EN 12899-1:2008).













SIBESTAR.IT



# TWO-PACK PAINT





# TWO-PACK PAINT





### SIBESTAR

Two-pack solvent-free paint based on metacrylic resins. Suitable for painting coloured pedestrian crossings, directional arrows, stop lines, rumble strips etc. Koad marks

# PREFORMED THERMOPLASTIC MARKINGS FOR PEDESTRIAN CROSSINGS





# PREFORMED THERMOPLASTIC MARKINGS FOR PEDESTRIAN CROSSINGS



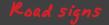
### SIBESTAR

Widely used for constructing pedestrian (zebra) crossings. The combination of good anti-skid properties and reflectiveness makes this product particularly adapted for making safe zebra crossings.

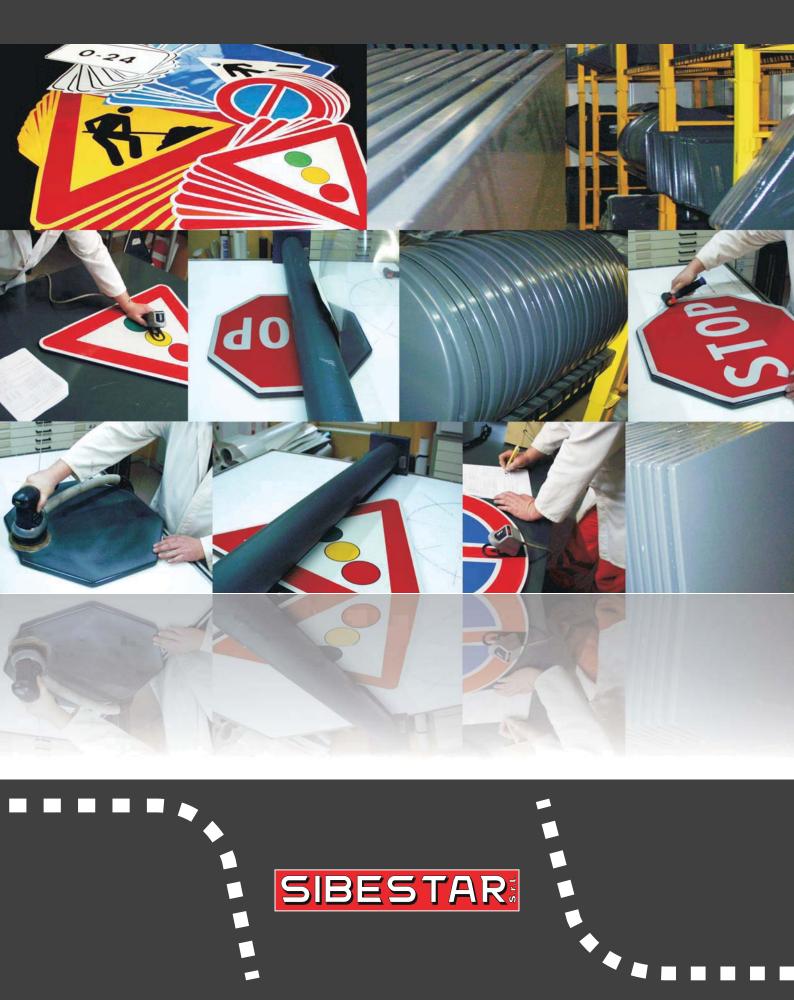
The white preformed thermoplastic contains glass microspheres which guarantee good reflectiveness: this is a primary requirement for safety and for improving driving conditions at night. The microspheres are distributed uniformly on the surface of the products and through its 3 mm thickness.

The result of this technology guarantees a good reflectivity for the entire life of the product.

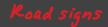
This product does not release any substances which could be harmful for the environment, neither during nor after its laying and not even when it is removed. The pigments are organic and do not contain lead or other heavy metals.



# **TRADITIONAL VERTICAL SIGNS**



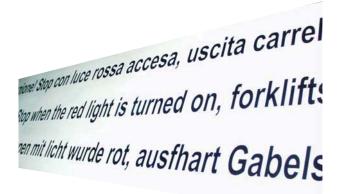
SIBESTAR



## **TRADITIONAL VERTICAL SIGNS**







## SIBESTAR

We make road signs complying with the new Italian Highway Code signs, for construction sites, place names and house numbers, signals for industries and signals with custom graphics.

Signs, poles and accessories CE marked according to EN 12899-1:2007 (in Italy it was adopted as UNI EN 12899-1:2008).

We study and use the best materials available, executing tests of artificial aging, resistance to breakage, etc.



## **ADVERTISING SIGNS**









# **ADVERTISING SIGNS**





### SIBESTAR

In addition to traditional signs, Sibestar has and makes various types of signs for elegant advertising.



## **DIGITAL PRINTING**















## **DIGITAL PRINTING**



### SIBESTAR

Sibestar can print directly on:

- Adhesive films;
- Refracting surfaces;
- Fabrics;
- PVC banners; Paper;

For such printing, Sibestar uses ecosolvent inks, suitable for use both indoor and outdoor.



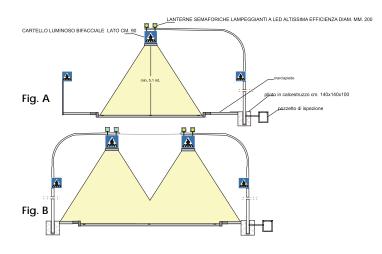
## DOUBLE-SIDED LIGHTING TRAFFIC SIGNS

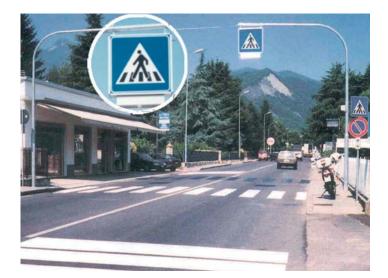




Luminous signs

## DOUBLE-SIDED LIGHTING TRAFFIC SIGNS







#### SIBESTAR

#### TECHNICAL CHARACTERISTICS OF

- LIGHTING SIGNS

  Construction: internally lit sign with a transparent face, single and double sided versions available. The faces are interchangeable.
- Fixings: metal

   galvanised for suspended signs, on poles, "flag";
- Body: made of anodised aluminium alloy extrusions, treated to resist atmospheric attack;
- Faces: 3mm thick for signs up to 90cmx90cm, 5mm for lager signs.
- Dimensions: we can make all the signs provided for by art. 80 of the Italian Highway Code; we mainly make fig. 303 "pedestrian crossing" with external dimensions 64cmx64cm and/or 94cmx94cm, 15cm depth for basic model CLB150, and 20cm depth for model CLB200.
- Symbols: are decorated on the outer part of the sign face. In particular conditions for which the sign must be refracting, even when it is not lighting to a fault or a power outage, a special refracting film can be added on the face to transmit and diffuse light. In case of blackout the light for refraction is provided by the lights of vehicles approaching the sign (version CLxxxxR).
- Electrical system: is made of high class CE and IMQ materials supplied by ISO 900x certified companies.
- Electrical connection: the connectors are supplied with selectable phase, fuse, neutral and earth.
- Protection level: IP23 resistance to penetration by external objects, dust and water; the CLS200X version has an electrical system rated IP 55.
- Insulation class: simple

insulation system, class "I" (CLS200 double insulation)

#### TECHNICAL CHARACTERISTICS OF

- COMPONENTS • Body: central section in hot-extruded aluminium, oxidized, with ends in pressed low-copper aluminium and painted aluminium grey RAL 9006.
- Reflectors: hammered polished and oxidized aluminium.
- Glass: security, tempered, thickness 4 mm; remains hinged to body during maintenance.
- Clips for closing glass: extruded aluminium with stainless steel springs AISI 302.
- Seals: silicon
- Screws: external, stainless steel;
- Electrical system: 55W low-pressure sodium lamp, 230V/50Hz cos Ø ≥ 0.9 power supply with earth, ceramic fuse with blow-out powder, silicon cables, 1 mm2 glass fibre braid. The connector plate is easily accessible, without tools, after switching power supply off. During maintenance the plate hangs from the body and can be easily removed.
- Protection level: IP 65
   resistance to penetration
   by external objects, dust
   and water.
- Insulation class: insulation system class "I" or "II" SAP 150 W.



# LIGHTING TRAFFIC SIGNS POWERED BY SOLAR CELL PANELS





#### Luminous signs

# LIGHTING TRAFFIC SIGNS POWERED BY SOLAR CELL PANELS





#### SIBESTAR

- TECHNICAL CHARACTERISTICS:
- Construction: internally lit sign with a transparent face, single and double sided versions available. The faces are interchangeable.
- Fixings: metal galvanised for suspended signs, on poles, "flag";
- Body: made of anodised aluminium alloy extrusions, treated to resist atmospheric attack;
- Fronts: 3mm thick for signs up to 90cmx90cm, 5mm for lager signs.
- Dimensions: we can make all the signs provided for by art. 80 of the Italian Highway Code; we mainly make fig. 303 "pedestrian crossing" with external dimensions 64cmx64cm (MOD CLL 60) and/or 94cmx94cm (MOD CLL 90), 15cm
- Symbols: decorations on the outer part of the sign face. In particular conditions for which the sign must be refracting, even when it is not lighting due to a fault or a power outage, a special refracting film can be added on the front to transmit and diffuse light. In case of blackout the light for refraction is provided by the lights of vehicles approaching the sign (version CLxxxxR).
- Cabling: 12V dc power supply (class =), 1mm2 flexible cable. IDEAL FOR SUPPLY WITH SOLAR CELL PANELS
- Signal protection degree: IP 23.
- Electrical system protection degree
   IP55
- Insulation class: double insulation system, class "II"
- Electrical components: mod: CLL 60 (cm 60x60) 120 white high efficiency 12W LEDs, mod. CLL 90 200 white high efficiency 20W LEDs.



## DOUBLE SIDES-LIGHTING TRAFFIC SIGNS SL 90 LED





#### Luminous signs

## DOUBLE SIDES-LIGHTING TRAFFIC SIGNS SL 90 LED



### SIBESTAR

#### **TECHNICAL CHARACTERISTICS:**

Construction: internally lit sign with a transparent face, single and double sided versions available. The faces are interchangeable.

Fixings: metal - galvanised for suspended signs, on poles, "f ag";
Body: made of anodised aluminium alloy extrusions, treated to resist atmospheric attack;
Fronts: 3mm thick

 Dimensions: we can make all the signs provided for by art. 80 of the Italian Highway Code; we mainly make f g. 303 "pedestrian crossing" 94cmx94cm, 15cm

• Symbols: decorations on the outer part of the sign face. In particular conditions for which the sign must be refracting, even when it is not lighting due to a fault or a power outage, a special refracting f Im can be added on the front to transmit and diffuse light. In case of blackout the light for refraction is provided by the lights of vehicles approaching the sign

- Cabling: 220 Vac power supply
- Signal protection degree: IP 23.
- Electrical system protection degree IP65 • Insulation class: double insulation system,
- Insulation cla class "II"
- Electrical components: 72 LED SMS white high ef fciiency

#### TECHNICAL CHARACTERISTICS OF COMPONENTS

• nr. 2 LED photometric engine for a total of 51 w 4 900 lumen

- CCT 4000 K cri 80 25 + 40 C°
- Electrical system protection degree IP65 • Insulation class: double insulation system,
- class "II"

• Power supply SELV (safety extra-low voltage)

#### • MAIN FEATURES

- PRODUCT MADE IN ITALY
- ENERGY SAVING: THE SIGNAL CONSUMES 69W IN TOTAL AGAINST 240W OF STANDARD SIGNALS
- WEIGHT: 18 KG AGAINST 30 KG OF SIGNALS STANDAR
- GUARANTEE: 3 YEARS AGAINST THE YEAR OF STANDARD SIGNALS



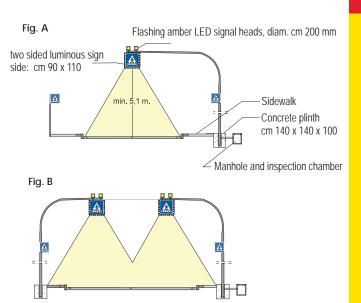
# DOUBLE SIDES LUMINOUS SIGN SL 90 LED 4M





#### Luminous sign

## DOUBLE SIDES LUMINOUS SIGN SL 90 LED 4M







### SIBESTAR

#### **TECNICAL SPECIFICATIONS:**

- Trasparent signal lit by an internal LED light source, avaiable as a one or two sides versione, the sign can be changed.
- Holding brackets in galvanised metal. Avaiable on hand the signal from a overhead pole, to install it on top of a pole or on the side of a pole.
- The body is made of anodised aluminum extrusions, treated to be weather resistant.
- The signs are are 3 mm thick up to 90 x 90 cm and 5mm for larger signs.
- Size: the luminous sign can be built in many sizes. Mostly we build it for pedestrian crossings, 94 x 114 and 20 cm thick.
- Symbols are draw on the external side of the sign. When necessary, it is possible to add a reflective film. Whit this film, in case of black-out, the signal remains visible tanks to the head-lights of the approaching vehicles.
- Supply: 230 Vac
- Power consumption: 20 W
- Protection of the electric part: minimum IP67
- Insulating class: system whit double insulation, class "II".
- 78 high power white LEDs
- SELV Power supply

#### TECNICAL SPECIFICATION OF THE LUMINOUS SIGNAL FOR THE FOCUSED LIGHTING OF PEDESTRIAN CROSSINGS

- 4 LED projectors for a total of 124 watts,10840 Lumen, color temperature 4000K, cri 80, -25° + 40°
- Protection of the electric part: minimum IP67
- insulating class: system with double insulation, class "II"
- SELF Power supply
- Minimum guaranteed flux on the ground: 100 LUX



## SOLAR SYSTEM LIGHT







## SOLAR SYSTEM LIGHT



With its low weight, small dimensions and easy installation, this warning sign is well-suited for warning of a hazard or for limited visibility, including locations which are not reached by the mains electrical supply.

The sign is made up of a solar cell panel, a battery, a circuit board to control the battery charging/discharging, night-time sensor, high-intensity LED, projector system, sealed battery case, fittings for fixing to 60mm pole.



## SOLAR CHARGE FLASHING SIGNS





# SOLAR CHARGE FLASHING SIGNS









### SIBESTAR

Made up of a solar cell panel, batteries, flasher card and approved 20 cm flashing lights.

Designed to signalize dangerous situation and integrate the traffic signs.

The flashing lights used led certificate to EN 12352



## LED EDGE LIT SIGNS







# LED EDGE LIT SIGNS



temperature sensors or with anemometer sensor at tunnels' exits.





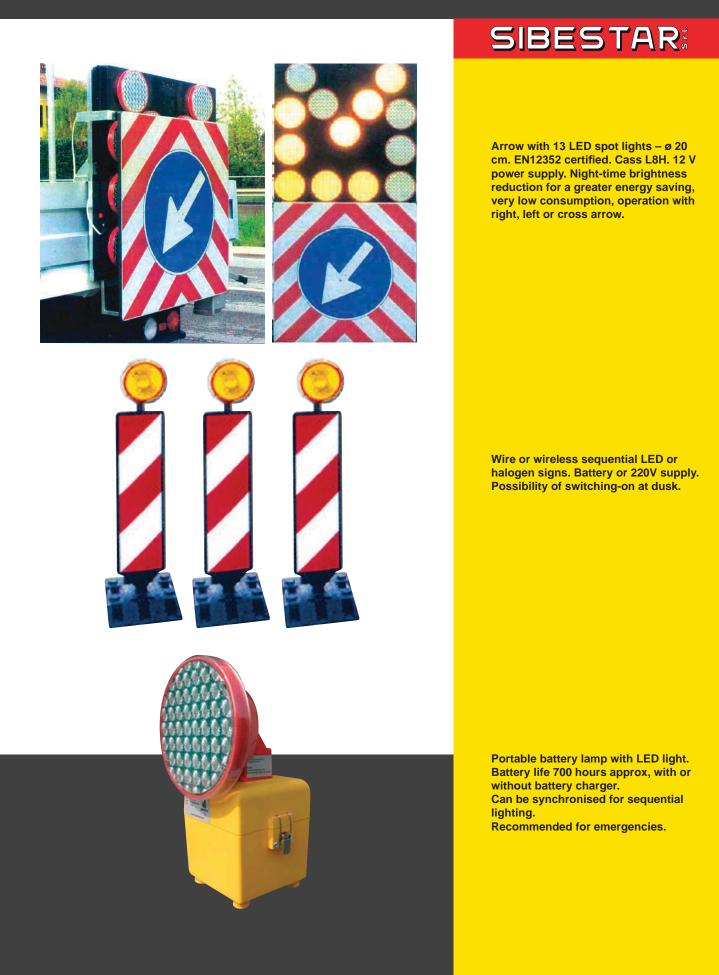
# LIGHTING SIGNS FOR CONSTRUCTION SITES





#### Luminous signs

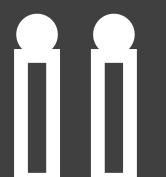
## LIGHTING SIGNS FOR CONSTRUCTION SITES



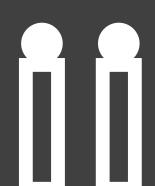


## SIGNS FOR URBAN AREAS









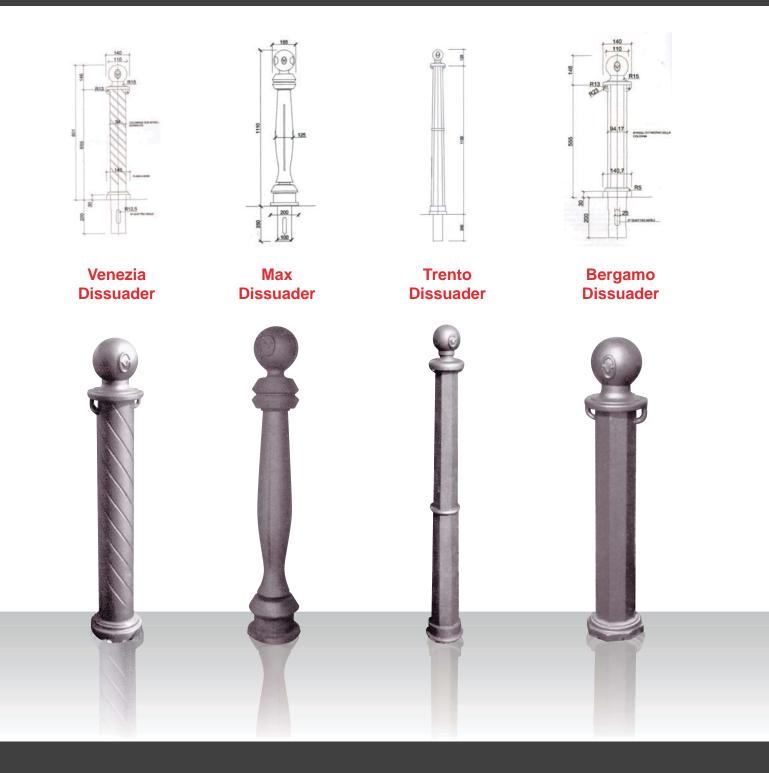


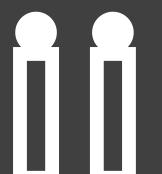
## SIGNS FOR URBAN AREAS



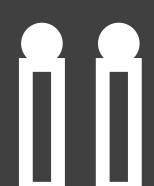


# CAST IRON TRAFFIC DISSUADERS











## **CAST IRON TRAFFIC DISSUADERS**



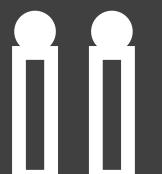
### SIBESTAR

Our cast iron parking posts are a good solution to prevent illegal parking, guide pedestrian, circumscribe the road traffic and mark car parks and walkways.

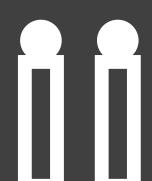


## **RUBBISH BINS**











## **RUBBISH BINS**



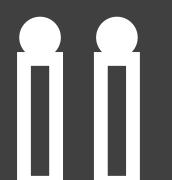
### SIBESTAR

Completing our wide range of street furniture products, this rubbish bin is made of stainless steel and is attached to one of our cast iron parking posts. It is possible to attach to bins to the same post.

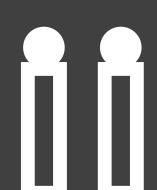


## PAINTED PEDESTRIAN BARRIERS











# PAINTED PEDESTRIAN BARRIERS









## SIBESTAR

Made of aluminium sections painted with epoxy powders for a longer life. Colours to order.



### **BENCHES**





**Berlin Bench** 

**Zurich Bench** 



**Paris Bench** 





## BENCHES



## SIBESTAR

Our line of street furniture products include several model of benches. Our benches are made of stainless steel and wood, to be both comfortable and long lasting.



## **WOODEN FLOWER POT AND SIGN**







## WOODEN FLOWER POT AND SIGN





## SIBESTAR

Treated-wood flower pot and sign. On request wheels, lighting signs, traffic lights.

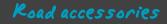
Treated-wood flower pot and sign

DIMENSIONS

Wide: 150 cm Deep: 80 cm High: 230 cm

Base Wide: 145 cm Base Deep: 80 cm Base High: 45 cm

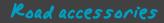
On request wheels, lighting signs, traffic lights.



## **ROAD MARKERS**







## **ROAD MARKERS**



## SIBESTAR

#### ROAD MARKERS WITH SOLAR CHARGED LEDS

High efficiency LEDs provide white or yellow light. Chargeable with day sunlight through

Chargeable with day sunlight through special batteries. During night they are operated by a dusk switch. Solare Top 24 : patch fixing, not drivable-over.

Solar Top 20: fixed by inserting the stem into the drivable road surface. Solar Ground is installed by means of special lens with a 2mm drivable-over projection.

#### REFLECTING ROAD MARKERS

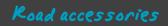
Reflects head-lights, show up white or yellow. tempered glass diam. 5 cm tempered glass diam. 10 cm metacrylate diam. 10x10 cm



## **MAXIMUM HEIGHT LIMIT ARCH**

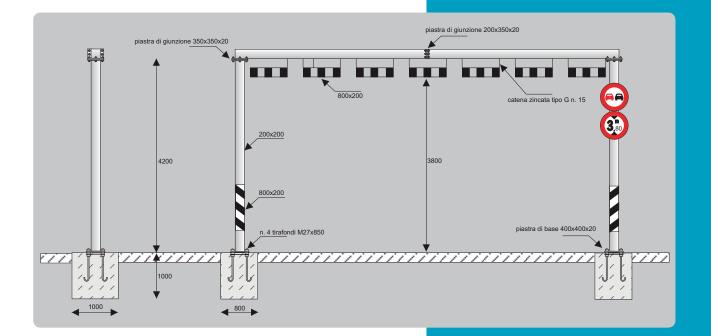






## **MAXIMUM HEIGHT LIMIT ARCH**

## SIBESTAR





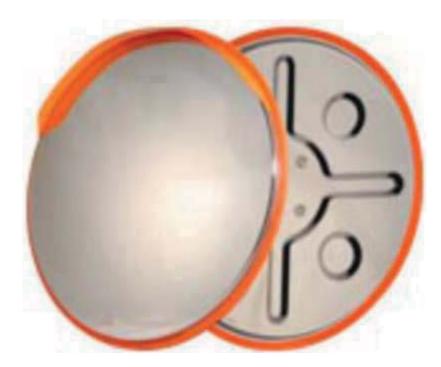
Custom made in galvanised steel or aluminium. Possibility to vary width of upper arm.

These signs are useful in case there is the need to limit the access to a road to vehicles above a certain height, in order to protect bridges and tunnels. They can also be used to restrict the access to parking, thus preventing caravans and heavy vehicles from entering.

Strike avoidance signs are custom built, in stainless steel or aluminium. In case the are to be used in car parks, it is possible to have a locking unlocking system for the overhead pole, in order to allow in emergency or cleaning vehicles.

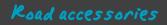


## **SCE CONVEX MIRRORS**

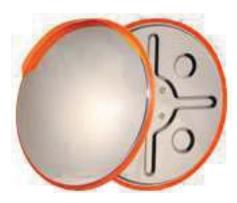








## **SCE CONVEX MIRRORS**



SIZE:

CM. 49 - 19,30 INCHES CM. 60 - 23,62 INCHES CM. 80 - 31,50 INCHES



SIZE:

CM. 450 X 600 17,72 X 23,62 INCHES

CM. 600 X 800 23,62 X 31,50 INCHES



BRACHETS FOR POLE DIAMETER MM 60 AND 76

#### WHY USE STAINLESS STEEL CONVEX MIRROR?

Material	Weather Resistant	Impact Resistant	Reflectiveness	Stainless Steel Over Others
Stainless Steel	*****	*****	***	The reflectiveness of Stainless Steel increase over time.
Acrylic	***	**	****	
Polycarbonate	**	****	****	
Glass	**	*	*****	

#### SIBESTAR

SCE Convex Mirrors are not your ordinary reflective device but an innovative product for safety and security.

Engineered and developed in order to withstand extreme conditions without compromising visual properties. SCE convex mirrors guarantees the best viewing quality.

The SCE convex mirror can be easily installed indoors or outdoors in any locations with limited visibility. Places at risk of accidental collisions such as road intersections, car parks, shopping malls, factories and industrial areas are all suitable for the use of SCE convex mirrors. Furthermore it is extremely suited to accident prone areas of breakage and/or collision.

Thanks to properties of stainless steel and a highly technological manufacturing process, the SCE Convex Mirror is incredibly impact and weather resistant. It is the ideal solution for areas with high risks of vandalism and/or areas with an aggressive industrial chemical atmosphere, and generally suited to locations with the most extreme conditions.

Manufactured from high quality stainless steel, SCE's convex mirrors are quickly replacing past generation mirrors made with obsolete materials which needs regular maintenance and frequent replacements.

The SCE Convex Mirror is virtually unbreakable and requires minimal to no maintenance, therefore, provides our customers trouble free constant



## STREET MIRRORS METHACRYLATE







## STREET MIRRORS METHACRYLATE

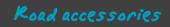


## SIBESTAR

Parabolic mirrors body acrylic frame and visor with red polypropylene, gaskets PVC black. Accompanied of attack for pole Ø 60 mm or wall bracket, adjustable in all directions. Visibility to 90 °\_\_\_\_\_

**MEASURES AVAILABLE** 

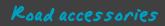
diameter cm 50 diameter cm 60 diameter cm 80



## LED LIGHTING PHOTOVOLTAIC PANELS







## LED LIGHTING PHOTOVOLTAIC PANELS



### SIBESTAR

- Painted aluminum body
- Tempered glass 3 mm
- Minimum group LED> 50,000 hours
- Autonomy without sun> 7 days
- Color temperature 5000 K to 6000
- IP65 protection
- Operating temperature -10 to + 50 ° C
- Fixing: post top Ø 60 mm (PV kit)
- Adjustable bracket included (Trilogy)
- Weight: 1.5 kg (Trilogy); 8.2 Kg (PV kit) Dimensions; 300 X 75 X 75 mm (Trilogy) H 400 X 345 X 175 mm (PV kit)