

# Manual Pre-disinfection/Cleaning and Sterilization Instructions for SATELEC wrenches

## Caution

Do not use steel wool or abrasive cleaners.  
Avoid solutions containing iodine or with a high chlorine content.  
The pH of detergents/disinfectants must be between 7 and 11.

The cleaning method for wrenches recommended by Satelec is manual or automated.  
All devices must be carefully cleaned and must be sterilized after cleaning prior to use.  
The sterilization parameters are only valid for correctly cleaned devices.

Wrenches must be cleaned with extreme care.

It is the responsibility of the end user to ensure that all equipment used to treat Satelec devices is properly installed, validated, maintained and calibrated.

Whenever possible, a washer/disinfector should be used for wrenches. Prevent the overloading of wash baskets for ultrasonic cleaning or cleaning in a washer/disinfector.

## Cleaning/sterilization cycle limits

Repeated treatment cycles that include ultrasonic cleaning, manual washing and sterilization have minimal effects on wrenches.

End of service life is normally determined by wear and damage due to use.

## Important

- Soiled devices should be separated from non-contaminated devices to avoid contamination of personnel or surroundings.
- Wipe blood and/or debris from the wrenches to prevent it from drying onto the surfaces.
- Cover the wrench with a soft lint-free cloth dampened with purified water to prevent blood and/or debris from drying.

## Containment and transportation

Soiled devices must be transported separately from non-contaminated devices to avoid contamination.

## Preparation for pre-disinfection/cleaning

It is advisable to treat devices immediately or as soon as possible after use. Satelec devices must be treated within two hours of use.

## Pre-disinfection/Cleaning - Manual method

**Equipment:** soft-bristled brush, soft lint-free swab, lint-free cloth, enzymatic or alkaline cleaner, ultrasonic cleaner.

I	Step duration (minimum)	Cleaning instructions
	1 minute	Rinse soiled device under cold running water. Use a soft-bristled brush or a soft and lint-free clean cloth to remove most of the contamination and debris.
	10 minutes	In an ultrasonic cleaner, immerse the device in a freshly prepared enzymatic or alkaline cleaning solution.
	1 minute	Rinse device under cold running water.
	2 minutes 30 seconds	Manually wash device in a freshly prepared enzymatic or alkaline cleaning solution. Use a soft-bristled brush to remove soil and debris. Wash the device under running water to prevent aerosolization of contaminants.
	1 minute	Thoroughly rinse device with distilled or purified water.
		Repeat the manual cleaning procedure until no visible contamination remains on device.
		Perform a final rinse of device using distilled or purified water.
		Dry device using a soft, lint-free cloth or clean compressed air.

## Inspection

- Wrenches must be inspected to check that no contamination remains, that they are not corroded, dulled, discoloured or damaged.
- Before packaging and sterilizing the cleaned products, check they are clean, undamaged and function properly.
- Damaged wrenches must be discarded. Wrenches must not be lubricated.

## Packaging

Use suitable packaging for sterilization, such as a Sterile Barrier System in compliance with ISO 11607. Care should be taken to protect wrenches from contact with other objects that may damage their surface or the Sterile Barrier System.

## Sterilization

Unless otherwise specified, non-sterile products can be re-sterilized using validated steam sterilization methods (ISO 17665 or national standards).

Satelec recommendations for packed wrenches are as follows:

Cycle type	Sterilization exposure time	Sterilization exposure temperature	Dry time
Saturated steam - forced air removal (pre-vacuum)	4 minutes	132°C	Minimum 20 minutes

Dry times generally range from 20 to 60 minutes due to the difference in packaging materials, steam quality, device materials, total mass, sterilizer performance, and varying cool-down time.

The distributor and manufacturer accept no responsibility for sterilization procedures performed by the customer that are not performed according to these Satelec recommendations.

## Storage

Storage conditions for products labelled "STERILE" are printed on the packaging label. Packaged products should be stored in a dry, clean environment, protected from direct sunlight, pests, and extremes of temperature and humidity. Use products in the order in which they are received ("first in, first out" principle), taking into account the expiry date indicated on the label.

# Automated Pre-disinfection/Cleaning and Sterilization Instructions for all SATELEC Wrenches

## Cautions

Do not use steel wool or abrasive cleaners.  
Avoid solutions containing iodine or with a high chlorine content.  
The pH of detergents/disinfectants must be between 7 and 11.

The cleaning method for wrenches recommended by Satelec is manual or automated.  
All devices must be carefully cleaned and must be sterilized after cleaning prior to use.  
The sterilization parameters are only valid for correctly cleaned devices.  
Wrenches must be cleaned with extreme care.  
It is the responsibility of the end user to ensure that all equipment used to treat Satelec devices is properly installed, validated, maintained and calibrated.  
Whenever possible, a washer/disinfector should be used for wrenches. Prevent the overloading of wash baskets for ultrasonic cleaning or cleaning in a washer/disinfector.

## Cleaning/sterilization cycle limits

Repeated treatment cycles that include ultrasonic cleaning, manual washing and sterilization have minimal effects on wrenches.  
End of service life is normally determined by wear and damage due to use.

## Important

- Soiled devices should be separated from non-contaminated devices to avoid contamination of personnel or surroundings.
- Wipe blood and/or debris from the wrenches to prevent it from drying onto the surfaces.
- Cover the wrench with a soft lint-free cloth dampened with purified water to prevent blood and/or debris from drying.

## Containment and transportation

Soiled devices must be transported separately from non-contaminated devices to avoid contamination.

## Preparation for pre-disinfection/cleaning

It is advisable to treat devices immediately or as soon as possible after use. Satelec devices must be treated within two hours of use.

## Pre-disinfection/pre-cleaning method

Note: The pre-disinfection/pre-cleaning method has to be performed for the wrench prior to automated cleaning.

**Equipment:** soft-bristled brush, soft lint-free swab, lint-free cloth, ultrasonic cleaner, washer/disinfector, enzymatic or alkaline cleaner.

	Step duration (minimum)	Cleaning instructions
	30 seconds	Rinse soiled device under cold running water. Use a soft-bristled brush or a soft and lint-free clean cloth to remove most of the contamination and debris.
	1 minute	Manually wash device in a freshly prepared enzymatic or alkaline cleaning solution. Use a soft-bristled brush to remove soil and debris. Wash the device under running water to prevent aerosolization of contaminants.
	30 seconds	Rinse device under cold running water.
	8 minutes	In an ultrasonic cleaner, immerse the device in a freshly prepared enzymatic or alkaline cleaning solution.
	1 minute	Thoroughly rinse device with distilled or purified water.
		Repeat the pre-cleaning procedure until no visible contamination remains on device.

### Automated cleaning method

Step	Duration (minimum)	Cleaning/decontamination instructions
Pre-washing	2 minutes	Cold tap water
Washing	2 minutes	Warm tap water (> 40°C); use an alkaline or enzymatic cleaning solution
Neutralization	5 minutes	Warm tap water with neutralizer, if necessary
Rinsing	2 minutes	Rinse with warm deionised or purified water (> 40°C)
Drying	40 minutes	90°C

### Thermal disinfection

For automated cleaning: thermal disinfection at 90°C for a minimum of 5 minutes.

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