



**Advantages of the disposable semicircular blade**

- Maximum cutting efficiency
- Accelerates the harvesting time
- 160° cutting area range
- Collects cortical bone shavings of appropriate size and thickness for the graft integration
- Effective on any bone surface (plane, concave, convex)
- Excellent control during the harvesting procedure
- No contamination due to the wear of the device



Straight version, chamber capacity: 3 cc

Curve version, chamber capacity: 2.5 cc



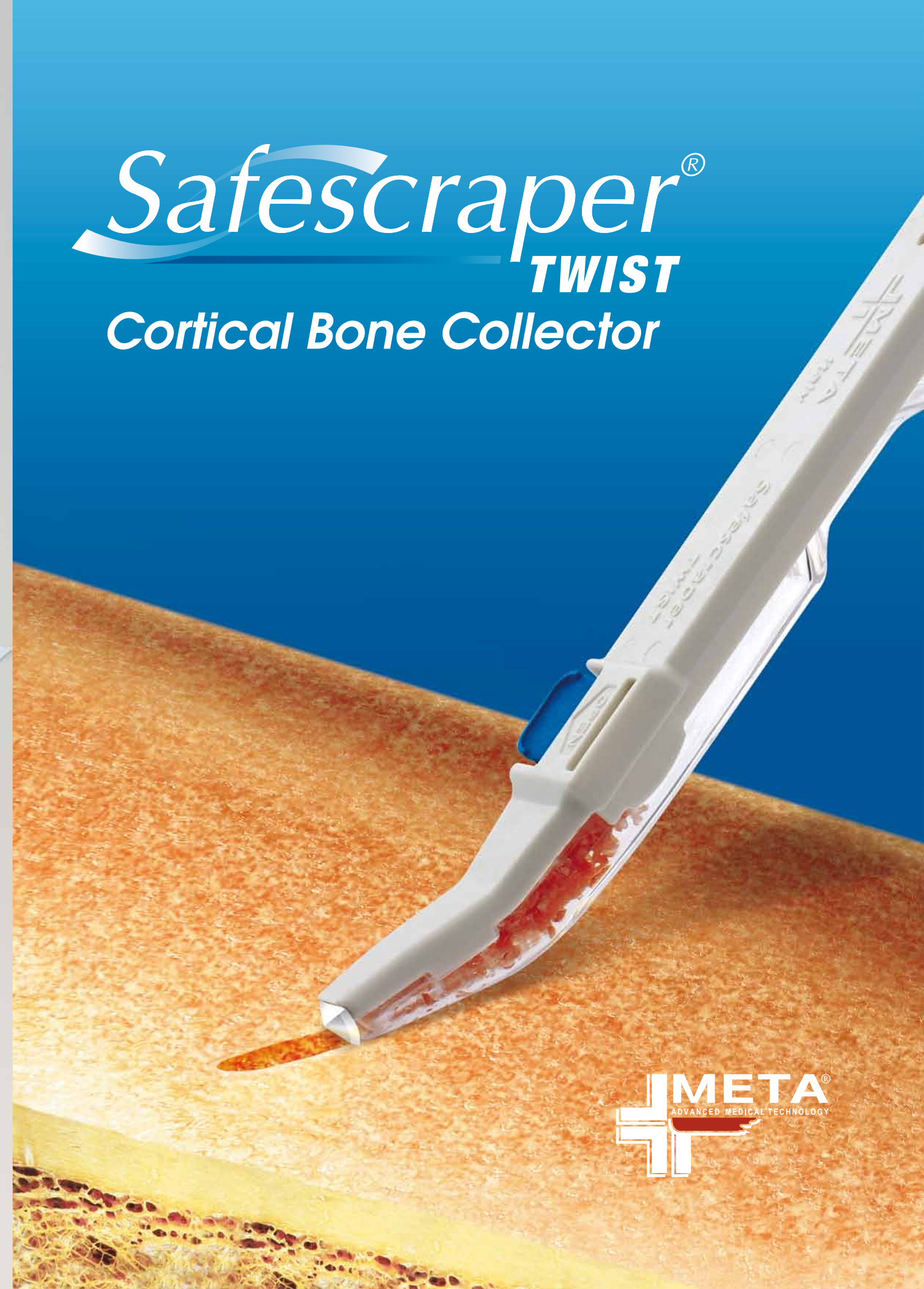
Ref.	Description	Q.ty
3598	Safescraper® <b>TWIST</b> - Straight version - Sterile - Disposable	PKG of 3
3987	Safescraper® <b>TWIST</b> - Curve version - Sterile - Disposable	PKG of 3



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Rev 02

# Safescraper® **TWIST** Cortical Bone Collector





# Safescraper® TWIST

## What is it?

META presents Safescraper®**TWIST**, the new version of Safescraper®, the most popular manual bone harvesting device worldwide

## What is it for?

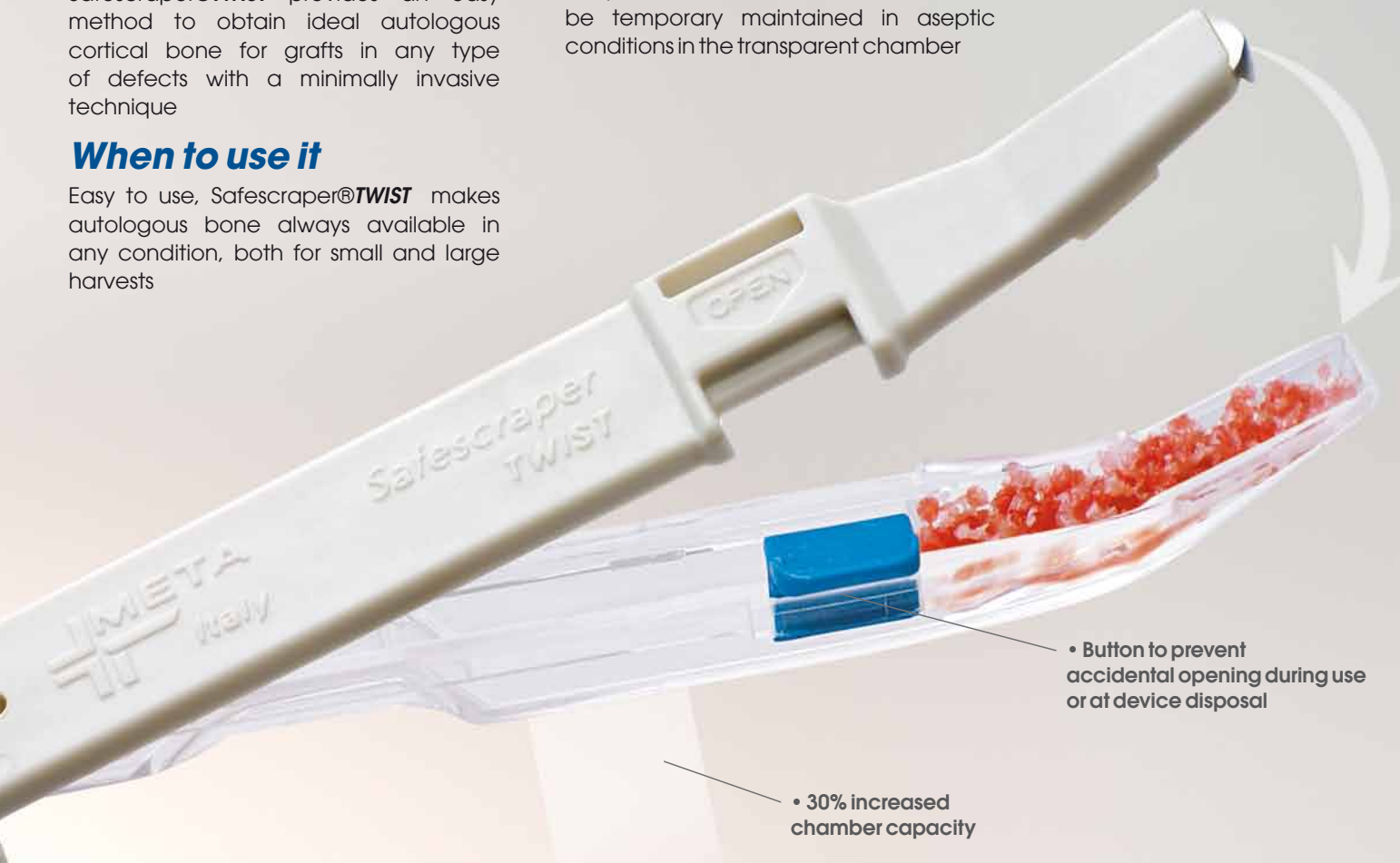
Safescraper®**TWIST** provides an easy method to obtain ideal autologous cortical bone for grafts in any type of defects with a minimally invasive technique

## When to use it

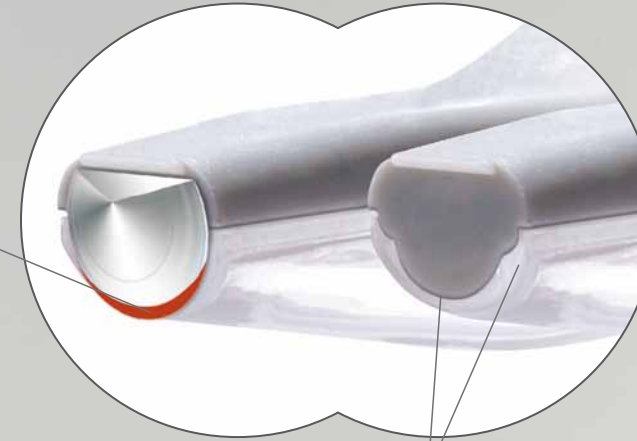
Easy to use, Safescraper®**TWIST** makes autologous bone always available in any condition, both for small and large harvests

## How it works

The exclusive cutting performance of the blade allows cortical shavings to be collected, while preserving maximum cell vitality, which is essential for graft integration. The bone collected is already combined with blood and ready to be positioned in the defect, or it can be temporary maintained in aseptic conditions in the transparent chamber



• Increased blade cutting performance



• New side opening system of the chamber that improves the device stability and provides, when required, an ideal container for composite grafts

• New chamber shape that captures bone shavings during the harvesting procedure minimizing their dispersion  
• Sealed chamber that separates the bone tissue collected from the metal blade and maintains the graft in maximum sterile conditions until it is used

• Button to prevent accidental opening during use or at device disposal

• 30% increased chamber capacity

## A real bone knife

The blade, obtained through advanced technologies, is the heart of the device and makes Safescraper® **TWIST** a really unique device

## Benefits of the device

**READY TO USE:** the disposable device is presented in individual sterile packages. Its sterility in an undamaged package is guaranteed for 3 years

**MINIMALLY INVASIVE:** the manual harvesting technique is non-traumatic and well tolerated by the patient

**USEFUL:** cortical bone can be harvested from any intraoral site, including near to the bone defect

**VERSATILE:** it is the ideal device for both extensive and minor harvesting procedures. Its curved tip version facilitates access in all intraoral donor sites

**CONVENIENT:** allows only the necessary amount to be harvested, without any need to use further bone substitute

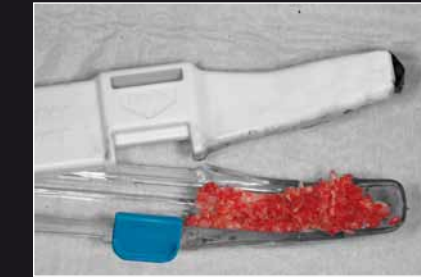
## Autologous regenerative therapy



Occlusal view of a severe alveolar ridge atrophy



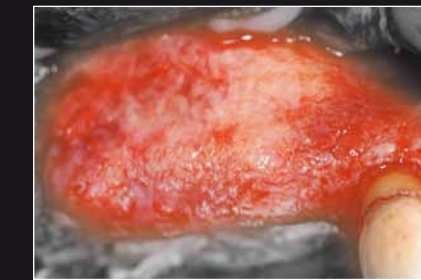
The adherence of the buccal and palatal mucosa caused by the tissue defect



The side opening of the chamber allows for better device stability



The graft positioned in site maintains the desired volume



Reopening at 7 months after ePTFE membrane removal



The graft integration and its volume is optimal for implant placement

*Clinical case courtesy of Dr. F. D'Avenia (Italy)*

## Properties of the cortical graft



### HIGH CELLS VITALITY

The manual harvesting technique preserves the cellular component of the graft. The cortical shavings obtained by the Safescraper® **TWIST** blade contain living and well-preserved bone cells, particularly osteocytes (mean vitality: 45-72%), but also osteoblasts, osteoclasts and osteoprogenitor cells



### IDEAL MORPHOLOGY

The mean size of the cortical shavings collected makes grafting similar to a bone transplant procedure. The cortical bone obtained with Safescraper® **TWIST** looks like an elongated and convoluted shaving of a mean length of 1.3 mm and thickness ranging between 150 and 250 µm



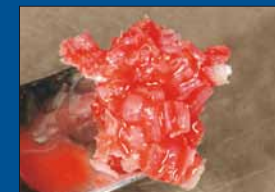
### VOLUME EFFECT

The volume increase obtained with the typical curled shape of the shavings harvested with Safescraper® **TWIST** reduces the amount of bone necessary to fill the defect, and consequently reduces invasiveness for the patient. A graft of approximately 0.3 CC of cortical shaving is sufficient to treat a defect that would require about 1 CC of bone obtained with other harvesting techniques or bone substitute



### BIOLOGICAL PLASTICITY

The tissue obtained with Safescraper® **TWIST** is collected and maintained in the sealed chamber in sterile conditions. A few minutes after collection, the graft takes on a high biological plasticity due to the presence of coagulated blood



### BONE TRANSPLANT

The cortical shavings obtained with Safescraper® **TWIST** are recognised by the receiving site as a vital bone multi-transplant, the graft integrates into the surrounding tissue and takes part in the physiological remodelling process. At 9 months from grafting, a considerable new bone formation by apposition is visible and vital cells are still found in the grafted cortical portion

## GRAFT BEHAVIOUR IN THE REPAIR OF BONE DEFECTS

