

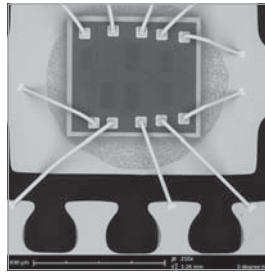
# PHENOM SAMPLE HOLDERS

## OPTIMIZED ACCESSORIES FOR SAMPLE LOADING & SYSTEM AUTOMATION

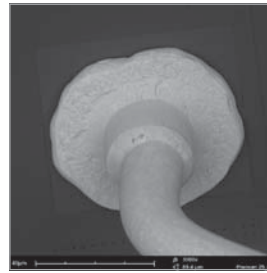
For your Phenom desktop SEM system a large variety of sample holders is available in order to extend the sample acceptance. These holders are designed for optimizing sample loading speed and guarantee the fastest time to image available in the market.

### MOTORIZED TILT ROTATION SAMPLE HOLDER

The Motorized Tilt & Rotation Sample Holder allows analysis of the sample from all visible sides and enables a unique 3D image of your sample. This sample holder is a so-called smart sample holder that does not have any cables attached. The Motorized Tilt & Rotation Sample holder can be operated in the navigation camera and SEM position, with a tilting range of  $-10^{\circ}$  to  $+45^{\circ}$  and endless  $360^{\circ}$  rotation.



Semiconductor 0° tilt



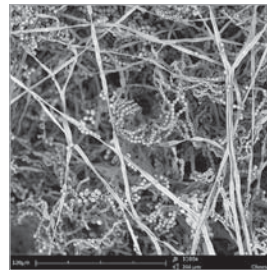
Semiconductor 25° tilt



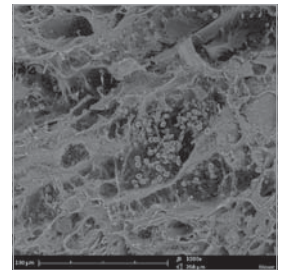
Semiconductor 45° tilt

### TEMPERATURE CONTROLLED SAMPLE HOLDER

The Temperature Controlled Sample Holder enables the study of vacuum-sensitive and vulnerable samples such as biological, food or organic coatings. This active sample holder is able to control the temperature of the sample and therefore influence the humidity around the sample. This minimizes the effect of the electron beam and vacuum damage of the samples.



Cheese mold



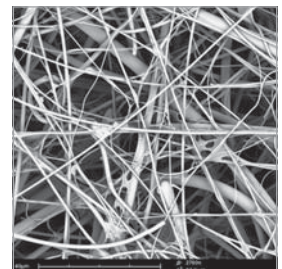
Human lung tissue

### STANDARD SAMPLE HOLDER

The ultimate high resolution sample holder, standardly shipped with every Phenom system. Optimized for best imaging results and can accommodate 3D type samples mounted on standard sample pin stubs.



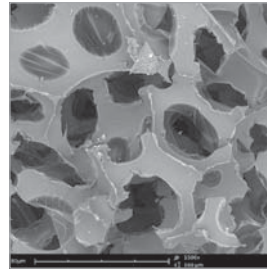
Pharmaceutical powder



Hepa dust filter

## CHARGE REDUCTION SAMPLE HOLDER

Is designed to reduce sample charging. This sample holder eliminates extra sample preparation of non conductive samples. Imaging samples like paper, polymers, organic materials, ceramics, glass, and coatings becomes fast and trouble free.



Polymer filter, imaged in its original state

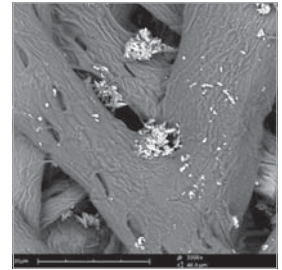
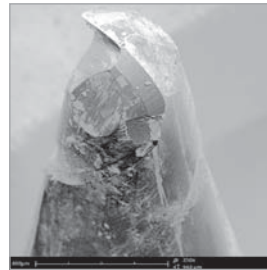


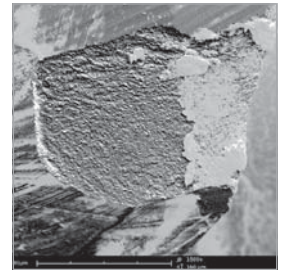
Image of uncoated paper, no charging is visible and image details are still clear

## MICRO TOOL AND TILT-ROTATION SAMPLE HOLDER

Imaging long axial shaped samples without sample modification is possible using the Micro Tool and Tilt-Rotation Sample Holder. Imaging objects such as drill bits, milling tools and injection needles is fast and easy, whereas imaging coatings and cutting angles is possible by rotating and tilting the region of interest without unloading the sample from the holder.



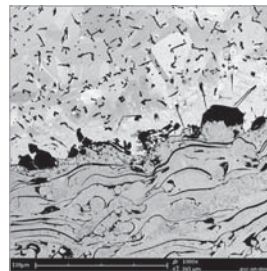
Top of drill bit at 45° tilt angle



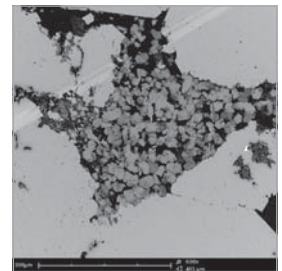
Drill bit focused on defect

## METALLURGICAL SAMPLE HOLDER

The base of this holder is equal to the Standard Sample Holder, except that this holder is designed to support resin mounted samples (schlieffen). For metallurgy and working with inserts this holder is the preferred solution. For this sample holder there are two inserts\* available to enable fast sample preparation.



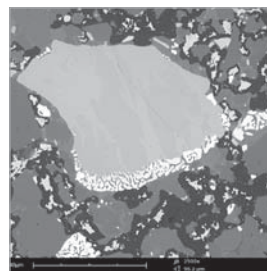
Plasma spray coated steel



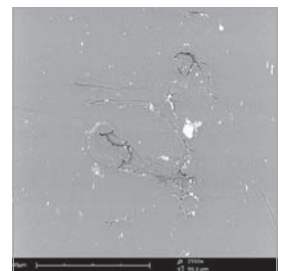
Reservoir sandstone

## METALLURGICAL CHARGE REDUCTION SAMPLE HOLDER

This sample holder eliminates extra sample preparation of non conductive resin mounted samples. This way imaging samples becomes fast and trouble free. For this sample holder there are two inserts\* available to enable fast sample preparation.



Ceramics



Defect in glass

\*Available inserts: X-view Insert and Micro-electronics Insert