

RAYEX® X-Ray Measuring System for Silane Extrusion Lines for Low and Medium Voltage Cables

General

RAYEX® systems have been sold since 1996 also for applications outside of CV-tubes. A special version of the model RAYEX® 160 at moderate cost is available for monitoring the thickness and eccentricity of insulation and semi-conductive layers in Silane processes (Monosil, Sioplas etc.) The system measures at the same time outside diameter and ovality. Thanks to its unique concept with an ultra-stable UMX-source and microfocus beam, the RAYEX® can measure extremely thin semiconductors on small conductor sections with high precision. This is a significant feature to ensure a high cable quality and lifetime.

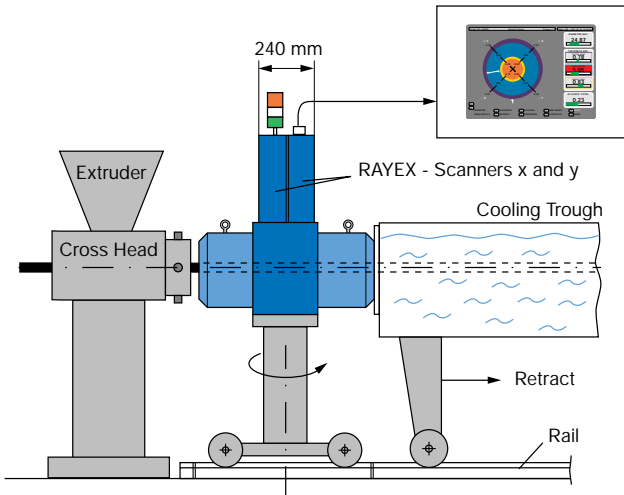
Description

The system consists of following main components:

1. Measuring Head
The x-ray head comprises two identical scanners, each with an x-ray source and a detector as well as the corresponding scanning and control system.
2. Support assembly
The support assembly serves as mounting base for the two x-ray scanners and ensures at the same time that no x-ray scatter reaches the outside. The two openings of the protection tube are sealed by a special labyrinth for the x-rays.
3. Processor and display unit
The electronic cabinet contains the USYS-RAYEX real time processor and an industrial colour screen with a self-explanatory display of the complete cable section. Programmable for any cable construction, with or without semiconductors.

Integration into Silane Extrusion Lines

The RAYEX® measuring head on the support assembly is typically mounted between the cross head and the cooling trough. It is recommended to mount it on a mobile support and rail system, so it can be retracted longitudinally or sideways with the cooling trough in case of works on the cross head.



Outstanding Advantages

- Moderate cost
- Ultrastable UMX source
- Microfocus beam
- Measures semiconductors down to 0.3 mm or less (depending cable geometry)
- Simultaneous Twin-Scanning in X and Y
- Easy to understand screen display
- No safety problems
- Checking/Calibration system ISO 9000
- Reference scan feature

Technical Data

Cable outside diameter	: 10 - 80 mm
Max. insulation thickness	: 20 mm
Conductor section	: from 16 mm ² upwards
Min. semiconductor thickness	: 0.3 mm
Material	: All current materials for Silane processes

For detailed data, please refer to general RAYEX® documentation.