OPTICUS
Inline Coating System for Eyeglass Lenses
The OPTICUS coating system for eyeglass lenses is based on an innovative inline concept for industrial refinement of prescription lenses. By high-quality coatings the optical and mechanical properties of lenses are crucially improved.

The main function of OPTICUS is the fully automated coating of eyeglass lenses with a hard coat, an anti-reflection layer stack, a clean coat and a quality control combined in just one single and compact production system. All coating steps are provided on both sides of the lens simultaneously.

OPTICUS with its patented coating technology distinguishes itself from the traditional batch processes and satisfies all the prerequisites to revolutionize the existing production of optical lenses. OPTICUS automates the production process and considerably reduces costs, logistical efforts as well as the personnel intensity. An OPTICUS machine amortizes itself in a very short period of time.

An essential factor of the inline technology is the transport and processing of single substrates. All process steps for the coating of the substrate including an inline quality control are interlinked in one system.

SINGULUS is clearly acknowledged as the global market leader in the field of CD- and DVD-production machines and provides machinery and application solutions for the entire manufacturing process. OPTICUS is the result of the combination of proven coating technologies, high-performance expertise and unique experience bundled with a revolutionary concept for the application of optical lens coating.

With its worldwide sales and service network SINGULUS provides exceptional support combined with technological synergies to benefit our customers.

Proven Coating Technology and a Revolutionary Concept

OPTICUS - Inline Coating System for Eyeglass Lenses
Competitive Advantages

**Fast, Economical, Flexible**
- Hard coat, AR Coating and Clean Coat combined in one machine - Fast cycle time of 80 s and industry’s fastest full lens refinement in 30 min only
- Fully automatic inline processing - Reduces logistical efforts and personnel intensity
- Single substrate processing and individual tracking of each lens - Enables individual coatings with different processes and fast feedback

**Controlled, Precise, Intelligent**
- Double sided PECVD and sputtering coating - Both sides coated simultaneously
- Proven technology of SINGULUS SMART CATHODE® - Perfect layer uniformity and high deposition rates
- Optional Optical Control system - Inline quality inspection of every single lens

**Compact, Clean, Perfect**
- All vacuum pumps, all electrical cabinets and all power supplies integrated - Small footprint, compact but perfect accessibility
- Housing including clean room class 100 - No contamination of substrates between the process steps
- No toxic chemicals are used - No environmental impact
- Touch screen and intuitive user interface - Easy operation
The OPTICUS’ main function is the coating of plastic eyeglass lenses with a Hard Coat, a Clean Coat and an Anti-reflective (AR) layer stack on both sides of the lens simultaneously.
Lens Material
- CR 39
- Polycarbonate
- High Index
- Photochromic
- Others

Performance
Cycle Time: 80 s
Output 925 good lenses per day (incl. yield and uptime)
Size of the machine 4.0 m x 3.2 m
Main voltage 3/PE AC 400 V +100 % & 40 %
Main Frequency 50 Hz or 60 Hz (customer specified)
Other required utilities cooling water compressed air process gases: Argon, Oxygen, Nitrogen

Decoating system
Consumables