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The Topcon IS-1D Ophthalmic Unit

Combining Design and Functionality

By Medeuronet, Media Communication Consultant

Contemporary ophthalmology practice continuously evolves into a high-tech environment, in which eye care professionals must keep up not only in terms of the efficiency of the instruments used in the care of patients, such as ophthalmic units, armchairs examination and diagnostic equipment, but in terms of comfort and aesthetics thereof. Modern clinical practices need to offer a service in which patients see their needs fully satisfied with a sensitive, cozy and safe treatment, as well as with respect for their waiting time and the consultation itself.

Topcon Medical Systems, Inc., headquartered in Japan, manufactures and distributes ophthalmic equipment and instruments for the diagnosis and treatment of eye diseases in many countries. For over 80 years, Topcon has been engaged in responding to the needs of ophthalmic practices and today, Topcon offers ophthalmology professionals the latest innovations in ophthalmic equipment and a very demanding quality control. The Topcon design specialists have also analyzed the mechanics necessary for the use and location of equipment relative to the patient, to optimize the flow and the comfort of the patients.

Integration of ophthalmic instrument in the IS-1D unit

When deciding the number of exam rooms in an office, you consider the type of patients who normally attend and the number and type of procedures performed more often. The optimal use of available space is particularly important. The Ophthalmic Unit IS-1D, with its compact design, is planned to allow integration of the latest ophthalmic equipment in a smaller space, while maintaining a focus of comfort for both the patient and the professional performing the assessment. The unit consists of an ophthalmic chair which is available in several models and a column to support the instruments, elegantly designed and requiring a total area for its installation of just 2.25 m^2 (1.5 mx 1.5 m).

The instrument stand places within the examiners reach a rotating table holding three ophthalmic instruments. The vertical support column includes an adjustable halogen reading lamp, an articulated phoropter arm and a bracket to attach an automatic projector. This combination circumvents the need to transfer the patient to another unit or instrument table, saving valuable time during the consultation, which can be used to treat more patients without lessening the quality of service.

In the table below you can see the average time it takes to perform an examination slit lamp combined with an automatic refraction in a patient.

Modality	AVG Time for Slit Lamp Exam	Transfer of Patient to a Second Unit	AVG Time for Automatic Refraction	Total Time
3-instrument unit	6.0 min	N/A	0.5 min	6.5 min
1-instrument unit	6.0 min	2.0 min	1.0 min	9.0 min
Difference				2.5 min
With 20 patients you save				50.0 min

Source: FOSUNAB

The use of an ophthalmic unit capable of holding up to three instruments saves a substantial amount of time (50 minutes) after only 20 patients.

The Ophthalmological Foundation of Santander (FOS), is the result of a visionary idea generated in 1976 by Dr. Virgilio Galvis Ramirez, when it was created on the 11th floor of the Hospital Ramon Gonzalez Valencia now called University Hospital of Santander, then moved to its own headquarters in 1986.

FOSCAL headquarters, which opened in 1993.

In 1993 the 40,000 square meters FOSCAL Clinic high technology complex was built. Finally in 2014 completed its last stage of growth, doubling its initial area: the FOSCAL - FOSUNAB international clinic.

FOSUNAB FOSCAL International opened in 2014.

Located within this impressive health center complex, is the Virgilio Galvis Eye Center. Its director, Dr. Virgilio Galvis who also was the founder of the entire institution, carefully selected each component of the exam rooms in both equipment and furniture.

Appropriately, Dr. Galvis chose Topcon ophthalmic units for the examining rooms in combination with other Topcon equipment for patient pre testing. The modern, ergonomic style, naturally integrated the Topcon units in this modern facility create a pleasant environment for the patient and efficient one for the clinician.

One of the examining lanes at Dr. Galvis' Center showing the Topcon IS-1D

The Topcon IS-1D being used by a technician

An ophthalmologist at Dr. Galvis' clinic perform an automated refraction on the IS-1D using a Topcon auto refractometer.

Simple operation

The ease of operation of ophthalmic units is also important for efficient patient flow. The control panel (Fig. 1) integrates the management of unit functions in a simple way.

Figure 1

Designed for intuitive operation, the panel lets you easily adjust the room illumination, the intensity of the halogen reading lamp and also control the instrument table, turn on and off the projector and adjust the patient's chair height.

The instrument's control is performed by a built-in rheostat inside the unit, which facilitates the use of the connected instruments; So, if the connected device is a slit lamp, the lighting can be adjusted from the panel as well.

Design-oriented comfort and functionality

All equipment is integrated into the unit so it can be used comfortably by the clinician without neglecting patient's comfort.

Among the most practical optional accessories the unit incorporates is a drawer capable of holding a complete set of trial lenses. This is especially convenient for its accessibility. Also optional is a foot pedal that allows you to adjust the chair height.

The unit offers the patient comfort at all times. In addition to providing adequate space to feel comfortable, the chair has a safety brake to protect the patient's legs and a footrest.

Contemporary image

Another feature that should not be overlooked is the modern design of the unit. In clinical practice, patients are becoming more demanding, and the equipment the doctor uses leaves a critical impression and expresses the attitude of clinicians towards their patients. In this sense, the IS-1D unit transmits an image with its up to date design, functionality and safety that go along with the professional who uses it.

The Topcon IS-1D Ophthalmic Unit

Advantages

Besides its efficiency, the IS-1D is easily adaptable as an examining refraction unit and also can be used for contact lens fitting depending on the instruments to be mounted.

The compact design saves space and allows maximum use of examination rooms. The advanced electronic system allows its use with different voltages without special adaptations.

User experience

Dr. Galvis told us that his experience with Topcon ophthalmic units was successful from the start. “Topcon sent a team of specialized personnel in the installation and integration of equipment in the ophthalmic units. Topcon technicians worked in direct contact with our professional and technical staff during the installation to fully satisfy our flow needs.” “This time savings and streamlining of tests has allowed us to meet the growing demand we have in our center” Dr. Galvis expressed in an interview.

Conclusion

The Topcon IS-1D Ophthalmic Unit, together with other units produced by the prestigious company is a modern and efficient response to the needs of multidisciplinary institutions as well as private ophthalmology clinics with moderate capacity. Eye care professionals, technicians and patients agree that these units provide a modern, comfortable and efficient concept to contemporary ophthalmology practices.

References

Topcon Medical Systems, Inc.
111 Bauer Drive
Oakland, New Jersey, 07436
topconmedical.com

Ophthalmological Foundation of Santander
Construction Forest
Highway to Floridablanca. Bucaramanga, Colombia
foscal.com.co

Virgilio Galvis Eye Center
virgiliogalvis.com.co