Medical Imaging

apollo DRF

Digital R/F remote controlled table

VILLA

radiology ahead


apollo DRF
150 cm
0°
43 x 43 cm
No Filter

the evolution of the digital remote controlled table

Apollo DRF is Villa's reference product in the panorama of digital remote controlled tables, which stands out over time for its unique and innovative features. Its top performance and operability have always been widely acknowledged, with features such as the ***wide application flexibility***, ***high productivity*** and ***high image quality***, still making it one of the most appreciated products by radiology professionals.

In the pursuit of constant development of its offering, Villa has decided to renew the entire product line of Apollo remote controlled tables in order to offer R/F systems that incorporate the most ***advanced technologies and functions***, to efficiently address the new demands from specialists in the field as always.

This new version of the Apollo DRF remote controlled table has been equipped with a number of innovative features that significantly improve its ***performance*** and make its use more straightforward and user-friendly, thus increasing the ***efficiency*** of routine daily use.

Implementing new examination procedures in the system also allows additional diagnostic information to be acquired, thus making the diagnosis process more comprehensive. With this new version, Apollo DRF thus achieves ***extraordinary application flexibility*** combined with high performance, which redefine the user's experience of the system.

quality & innovation 4.0

superlative flexibility

All Apollo DRF movements have been designed to ensure ***rapid and accurate positioning*** and allow the widest possible range of radiographic projections.
The ***90° tilting in both directions*** makes it possible to install the remote controlled table in the most diverse configurations of the diagnostic room, allowing top results to be obtained in any environment.

The wide travel of the tube-detector assembly ensures ***complete patient coverage***, thus avoiding the need for its repositioning or to move the table longitudinally.

By means of motorised tilting of the tube support column, combined with rotation of the X-ray source, ***oblique projections*** can also be ***carried out on the table*** as well as ***patient exposures on a stretcher***.

rapidity & efficiency 4.0

The focus-detector distance, which can be extended ***up to 180 cm***, makes it possible to examine the chest directly on the remote controlled table. The ***lower height from the floor*** and the ***completely smooth surface*** of the examination table make patient access easier and simplify transfer procedures from the stretcher.
In addition, the sturdy and reliable mechanical structure is able to withstand a weight ***up to 284 kg***, with no movement restrictions, thus also making it possible to examine bariatric patients.

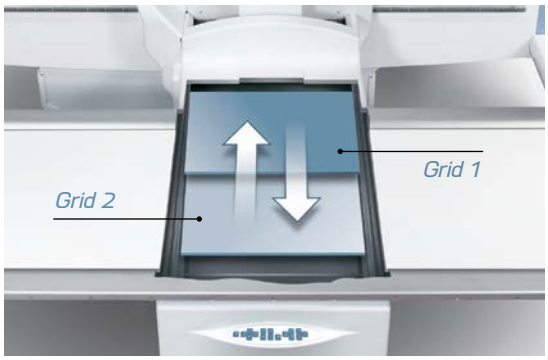
The system can be supplied with a ***wide range of accessories*** for patient positioning and for special procedures, such as lateral cassette holder, compression band, shoulder support, patient footrest, handles and leg support.

utmost efficiency with a simple touch

Thanks to the seamless integration of the remote controlled table with the digital acquisition system, Apollo DRF ***simplifies and speeds up the workflow***, thus reducing to the minimum the need for manual operations by the operator. In fact, the system recognises the type of projection to be performed and automatically adjusts all examination parameters according to the pre-set values for each projection.

By simply pressing a key, the table automatically reaches the pre-set position, setting all geometric features according to the radiographic projection to be performed, such as ***focus-detector distance***, ***collimation area***, ***additional filtration*** and ***correct anti-scatter grid*** between the two available in the system.

Should grid use not be required, such as when examining paediatric patients or extremities, the system automatically ***parks the grid outside of the X-ray field***, thus resulting in a reduction in the dose delivered.



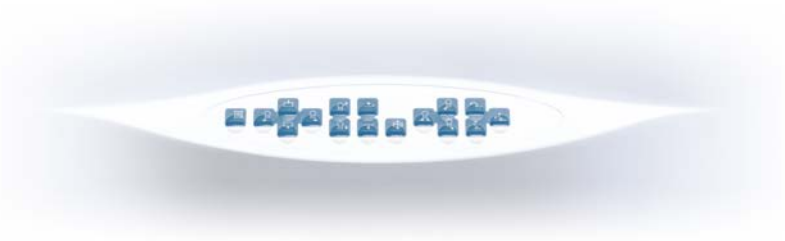
The system provides the operator with significant flexibility in controlling movements of the table through the various interfaces available. The ***remote control console***, which is based on an upgraded, high performance hardware architecture, enables a prompt and user-friendly control of the equipment via the large ***touch screen*** display that instantly shows the information regarding table position and operating mode.

The ***smart-touch joysticks***, which are activated by human touch, control all motorised movements in total safety, thus adding a further prevention feature against accidental activation. The operator is also able to communicate directly with the patient to provide instructions and reassurance during the exam via the ***built-in two-way intercom***, which is supported by pre-recordable audio messages in several languages. The ***video camera built into the collimator*** makes it possible to perform the centring operation without X-ray emission and also provides a new visual of the patient during positioning.

Should it be required to stay close to the patient when preparing the examination, remote controlled table movements can be driven from the ***control panel*** on the side of the patient tabletop or via an additional control panel on a trolley.

The operator can also perform centring operations directly from the ***new collimator with the touch screen interface***, from which the position of the X-ray source on the anatomical part concerned can be adjusted. The collimator display also shows information regarding SID, the collimation area and additional filtration. Apollo DRF therefore provides the user with high-level ergonomics, resulting in rapid and efficient workflows.

ergonomics & functionality



high-quality images and high productivity

The large ***dynamic detector*** is able to provide high-resolution X-ray images and high-acquisition frequency fluoroscopic sequences, rapidly switching between modes.

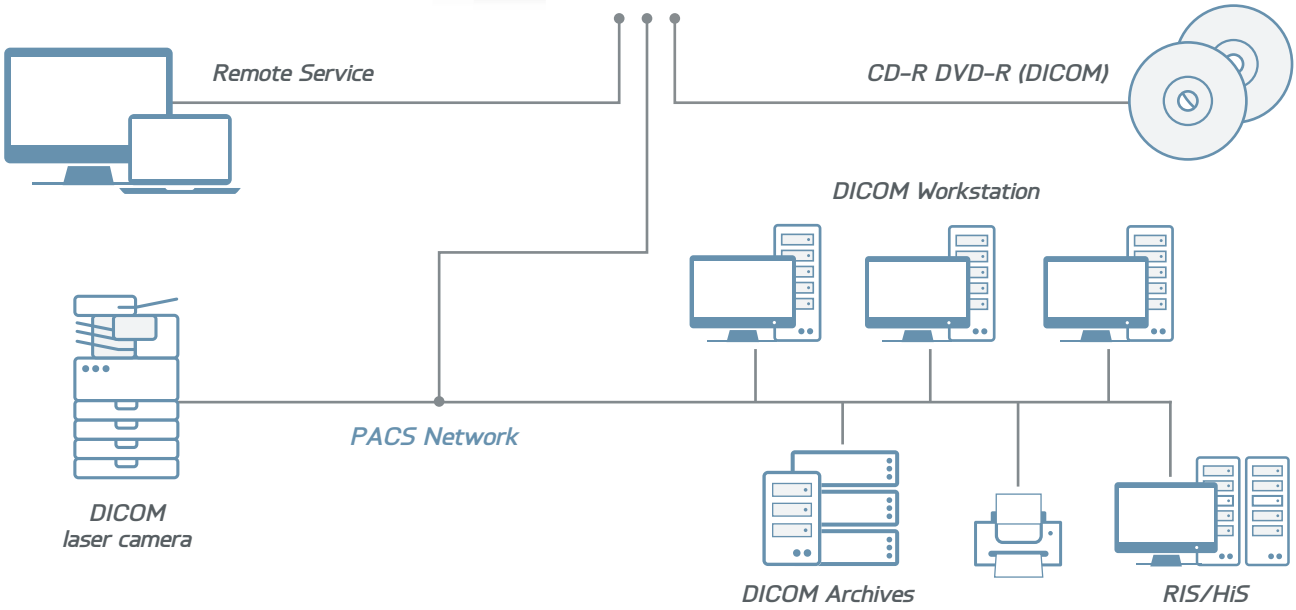
Its high resolution and sensitivity allow the system to obtain extremely detailed and sharp images at low dose, while the ***active area of 43x43 cm*** assures the right coverage of each anatomical area. All that makes Apollo DRF a "2-in-1" solution able to cover a wide range of diagnostic applications with extreme versatility, constantly maintaining high quality levels.

The digital acquisition system features a ***new user graphic interface****, which is entirely redesigned for quick and user-friendly use: the screen has in fact been divided into designated areas for setting examination parameters, acquired image display and application of post-processing tools.

Moreover, the ***image processing algorithm*** has been upgraded, making it even more accurate in automatically identifying the processing parameters of the anatomical area examined, in order to optimise visibility of the details. ***High diagnostic content images*** are thus obtained just a few seconds after exposure, making the diagnostic process even safer and more effective.

* available from second quarter 2018

WIRELESS 43X43 FLAT PANEL



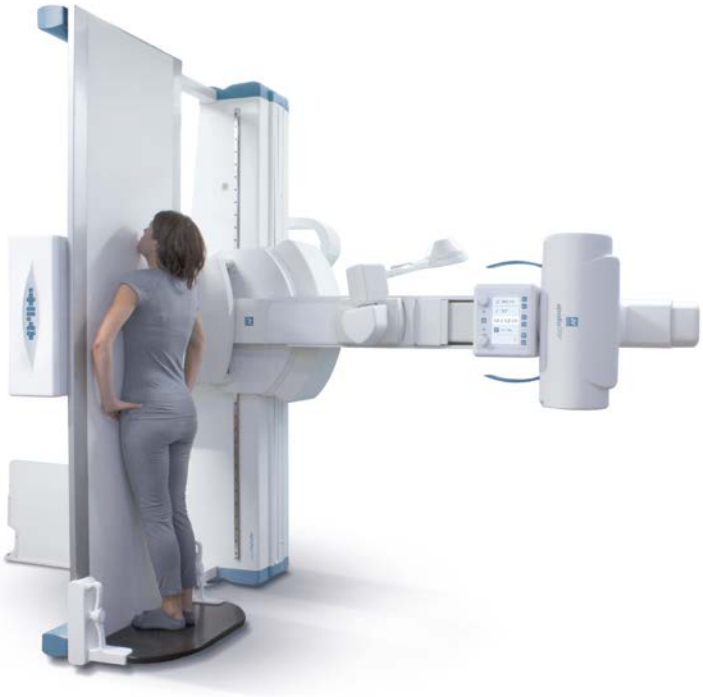
As a result of the fully available DICOM functions, the Apollo DRF's acquisition system efficiently interfaces with the ***HIS/RIS and PACS structures***, assuring the best use of digital technology's full potential.

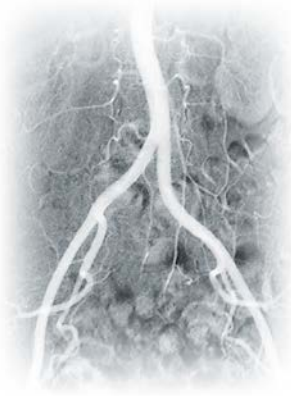
An example of integration between the various application environments is given by the ***auto-positioning function*** that Apollo DRF is equipped with: by automatic patient/examination list reception, the remote controlled table's software is able to set up the generator's exposure parameters, position the remote controlled table's geometry according to protocol and make the images available to diagnostic workstations immediately after exposure. This RIS-mapping function ***boosts the workflow*** and results in a considerable increase in production.

simplicity & productivity

a wide range of applications

The significant versatility of Apollo DRF is expressed in its ability to cover a wide range of ***routine and specialised examinations***, streamlining ***use and productivity of the R/F examination room***.
The ***large active area of the detector*** and ***high quality of the acquired images*** are conducive to an extraordinary range of possible applications in radiography and fluoroscopy: from general radiology procedures to dynamic ones focusing on the digestive or peripheral venous system, from pain therapy procedures to micro-invasive procedures, from urography to tomography examinations. In addition, vascular examinations are also possible via the digital subtraction angiography (DSA) package.





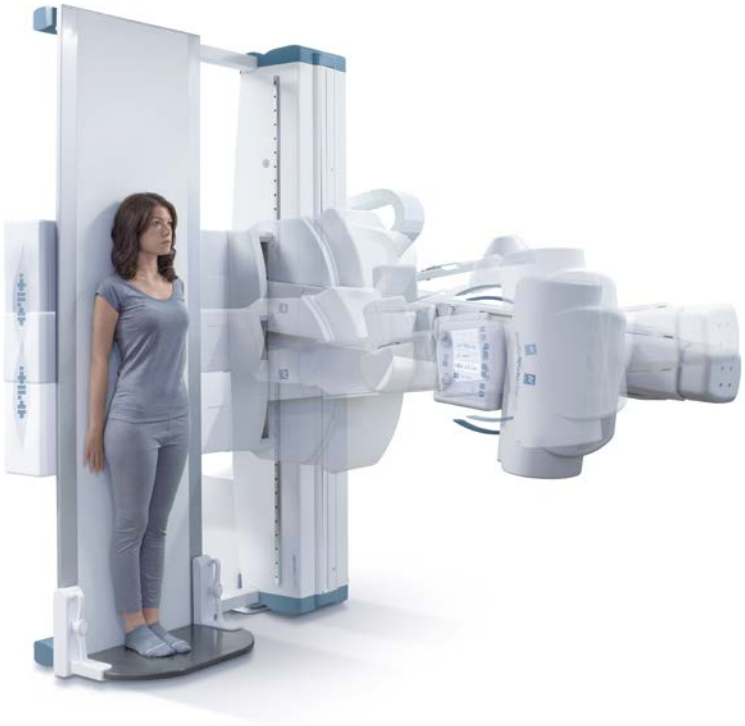
The images used by way of example have been graphically adapted to represent some possible applications and relative positioning of the equipment.

advanced functions for effective diagnoses

In the configuration with an ***additional wireless detector***, which may be seamlessly integrated with the same digital acquisition system of the remote controlled table, the application abilities of Apollo DRF are further extended, making it possible to perform ***exposures in direct contact with the detector*** and on stretcher patients. This operational flexibility may be further extended by using a ***second X-ray tube on a suspended ceiling stand*** that can be controlled by the same remote control system generator which, together with the wireless detector, also makes it possible to perform ***lateral projections*** on the table.

Furthermore, the ***stitching procedure***, which consists in automatic acquisition process of a set of X-ray exposures and their subsequent integration into a single image, is also available. This function therefore supports investigation of ***extensive body areas***, such as full-leg/full-spine examinations, also extending diagnostic capabilities to orthopaedics thanks to the optional specialist measurement package.

In addition, Apollo DRF now features the ***innovative tomosynthesis function***, an examination technique based on low-dose acquisition of a series of projections from different angles of an anatomical part, which are processed through advanced reconstruction algorithms to obtain a sequence of slices parallel to the examination table. The images obtained, free from overlap by the surrounding tissues, allow one to more easily determine the ***presence of small lesions or anomalies that are not very visible*** with conventional radiography, thus providing information to make the diagnostic process faster and more effective.



The images used by way of example have been graphically adapted to represent some possible applications and relative positioning of the equipment.

evolution that makes the difference

Apollo DRF features a number of solutions that are thoroughly designed to ***reduce the dose*** and to assure the ***utmost safety*** for the patient.

- New multi-layer table surface with reduced X-ray attenuation
- Automatic removal of the anti-scatter grid for examinations of paediatric patients and extremities
- Automatic collimator available with optional additional filters
- Anatomic programs optimised for the body part to be examined, with specific mode for paediatric patients
- Dynamic Flat Panel Detector with high X-ray sensitivity
- Pulsed-fluoro mode with variable acquisition speed
- Virtual collimator function with diaphragm adjustment without X-ray emission by using the last image hold (LIH)
- Virtual scan function that displays movement of the collimator on the last image acquired during table movements, thus making it possible to centre the area of interest without X-ray emission

Other features assure ***additional safety for the patient as well as the operator*** during the examination:

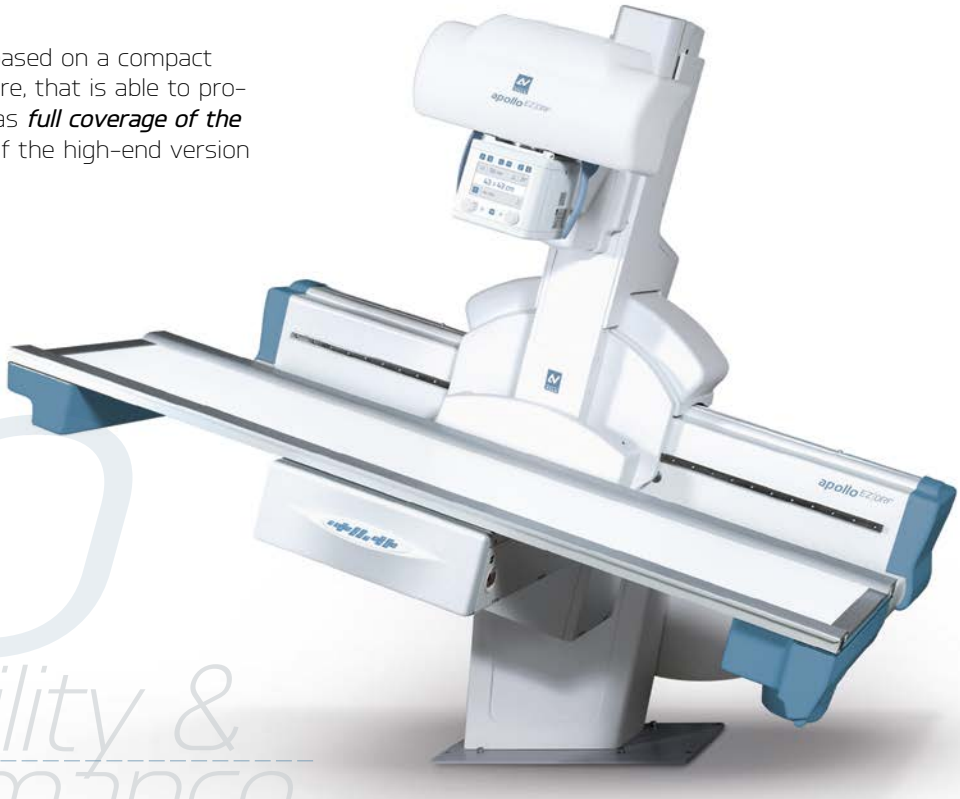
- Smart-touch joysticks, equipped with a proximity sensor that reduces involuntary activation, to control the motorised movements in utter safety
- Software designed to monitor all movements of the equipment, supporting the utmost operator confidence
- High-voltage cables encased inside the table's covers so that examinations may be carried out with peace of mind.

apollo DRF/OPEN

Apollo DRF Open is the version with the single-side suspended tabletop that provides ***maximum access to the patient*** from any side of the table, thus extending its use to interventional procedures. The operator is thus able to rapidly and efficiently act in the shortest time possible, accessing the patient directly in a comfortable and safe manner. The ***carbon fibre tabletop*** is an additional solution to reduce the dose.

apollo EZ/DRF

Apollo EZ DRF is the version based on a compact and reliable mechanical structure, that is able to provide ***high performance*** as well as ***full coverage of the diagnostic applications*** typical of the high-end version at a more accessible price.



4.0 flexibility & performance

VILLA

radiology ahead

Competence in x-ray systems

Villa Sistemi Medicali is one of the most important manufacturers of radiological systems worldwide.
Leveraging more than 50 years of experience in X-ray field, the company's know-how covers all technologies which can create a modern radiographic examination room.

A wide range of equipment

Our range of products includes:

- Digital X-Ray systems
- Remote controlled tables
- Classical tilting tables
- General rad rooms
- Mobile units
- Surgical C arms
- Mammography
- Dental units: intra-oral, panoramic and 3D.

Our priority: Technical Service

A wide network of highly skilled service engineers ensures effective and reliable maintenance of all Villa Sistemi Medicali equipment installed worldwide. Preventive maintenance programs and service contracts are defined by our qualified personnel and adapted to the needs of our customers.

Logistic services: a global presence

Villa Sistemi Medicali daily provides full systems, spare parts, accessories and consumables, shipped regularly to all our customers, worldwide, using the most efficient couriers.
Shipment modalities include ground, ship, air and intermodal freight transport.

CE 0051

ISO 9001:2008 ISO 13485:2003

Villa Sistemi Medicali Spa

Via delle Azalee, 3
20090 Buccinasco - Italy
Tel. +39 02 48859.1
Fax +39 02 4881.844
vsminfo@villasm.com
www.villasm.com

Villa Radiology Systems

199 Park Road Ext., Suite 107
Middlebury, CT 06762 USA
Tel. +1 203 262 8836
Fax +1 203 262 8837
info@villaus.com
www.villaus.com