Dental Excellence in every area



Practice equipment

KaVo treatment units and lights, dental chairs, patient communication system, dental microscope and additional operatory accessories



Instruments

Dental straight and contra-angle handpieces, turbines, air polishing systems and small equipment for all application areas including diagnosis, prophylaxis, restorative, surgery, endodontics and instrument care



Imaging

Intraoral X-ray equipment, sensors and imaging plate systems, panoramic and cephalometric in combination with CBCT, as well as dedicated CBCT devices for every indication in dentistry



CAD/CAM

Dental CAD/CAM solutions for highly aesthetic, natural-looking and long-lasting restorations, suitable for dentists and dental technicians

KaVo NOMAD[™] Pro 2 Handheld X-ray system



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KaVo Dental GmbH | Bismarckring 39 | 88400 Biberach | Germany www.kavo.com









KaVo NOMAD[™] Pro 2 Safe and effective handheld X-ray technology*

Commitment to safety

We understand that safety is paramount when clinicians treat their patients. To keep operators safe, the KaVo NOMAD[™] Pro 2 has two highly devised shielding features.

Internal shielding

Due to its innovative internal shielding, the KaVo NOMAD[™] Pro 2 is safe for the operator to use as a handheld device. The X-ray tube and collimator are completely enclosed in a proprietary blend of metals that are designed to block radiation leakage.

Backscatter shield

Most of the low-dose radiation generated by the KaVo NOMAD[™] Pro 2 will be absorbed by the patient, but in the case of backscatter radiation, the leaded polymer shield at the front of the device provides the operator with a zone of protection.

* The KaVo NOMAD™ Pro 2 is cleared by the U.S. Food and Drug Administration and is CE marked. Regulatory requirements can vary by jurisdiction. Please contact your regional regulatory agency for radiation requirements in your area.



More than 30 independent studies and evaluations attest to the safety of the NOMAD Handheld X-ray systems.*

"The results of this comparison of dental staff doses between the NOMAD handheld intraoral X-ray system and conventional wall-mounted intraoral X-ray systems indicate that the staff doses for the handheld systems are significantly less than those for wall-mounted systems. Consequently, there should be no concern about the use of the NOMAD handheld dental intraoral X-ray system."1

"The NOMAD device is a reliable, versatile, portable X-ray unit that meets radiation safety standards and has multiple applications for forensic, field and humanitarian dentistry."²

- ¹ Gray J, Bailey E, Ludlow J. Dental Staff Doses With Handheld Dental Intraoral X-ray Units, Health Physics, 2012; 102(2): 137–142.
- ² United States Air Force, NOMAD™ Portable X-ray Unit (Project 05-40), Dental Evaluation & Consultation Service. Illinois: USAFSAM: 2006
- ⁴ McGiff T, Danforth R, Herschaft E. Maintaining Radiation Exposures As Low As Reasonably Achievable (ALARA) for Dental Personnel Operating
- Portable Handheld X-ray Equipment, Health Physics, 2012; 103(2): S179-S185.
- * For more studies and information, visit www.kavo.com/en-us/imaging-solutions/kavo-nomad-pro-2-intraoral-X-ray.

Comparative data for whole body exposure (annual)



- ¹ Council Directive 2013/59/Euratom of 5 December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation.
- ² NCRP Report No. 160 (National Council on Radiation Protection and measurements), p 211–212.
- ³ Feng YJ et al, Estimated cosmic radiation doses for flight personnel, space medicine and medical engineering, 15(4) 2002, p 265-269. ⁴ Normalised average assumes 7,200 exposures per year, and the average length of exposure for D-speed = 0.50 seconds, F-speed = 0.25 seconds,
- digital sensor = 0.20 seconds.

| Technical specifications | | | |
|--------------------------|------------------------|-------------------------|-------------------------------|
| Battery | 21.6 V DC lithium-ion | Source to skin distance | 20 cm |
| Voltage | 60 kV true DC | X-ray field | 60 mm round |
| Current | 2.5 mA | Maximum duty cycle | 1:60 seconds |
| Exposure time range | 0.02-1.00 s | Total weight | 6.0 lbs. (2.7 kg) |
| Focal spot | 0.4 mm | Approximate dimensions | W 5.5" x L 11" x H 10.5" |
| Inherent filtration | > 1.5 mm al equivalent | | (W 14 cm x L 28 cm x H 27 cm) |
| | | | |

- "Our data has shown that the NOMAD x-ray unit presents risks that are no greater than with standard dental radiographic units to the patient or operator, and the measured doses are well below recommended levels."³
- "This investigation suggests that the NOMAD handheld X-ray unit employed in this study is suitable for use in routine dental radiography provided it is operated according to the recommendations of the manufacturer by properly trained personnel. This conclusion is supported by measurements of the dose received by a simulated operator."4

³ Goren A, Bonveto, M, Biernacki J, Colosi D. Radiation Exposure with the NOMAD Portable X-ray System, Dentomaxillofacial Radiology, 2008; 37: 109-112.

Occupational dose limit Average natural background radiation² Average occupational radiation exposure for flight crews³ Occupational dose limit requiring dosimetry General public dose limit (excluding natural background and medical care)¹ Range of exposure for dental personnel using conventional X-rays² Average exposure using NOMAD X-ray unit with D-speed film⁴ 0.12 mSv Average exposure using NOMAD X-ray unit with F-speed film or digital sensor⁴