



VON GAHLEN

HOT LAB



A WORLD LEADER IN RADIATION SHIELDING



OUR MISSION IS TO PROVIDE THE NUCLEAR MEDICINE
COMMUNITY AND THE RADIOPHARMACEUTICAL
INDUSTRY WITH THE HIGHEST QUALITY AND THE
MOST RELIABLE LEAD SHIELDING PRODUCTS

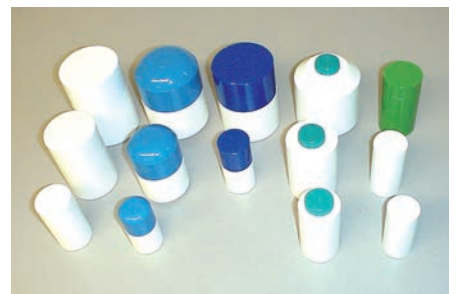
INTRODUCTION

VON GAHLEN IS A MODERN STATE-OF-THE-ART MANUFACTURER OF LEAD SHIELDING PRODUCTS. SINCE ITS FOUNDING IN 1973, VON GAHLEN HAS BECOME THE INDUSTRY LEADER IN LEAD SHIELDING, PROVIDING THE NUCLEAR MEDICINE COMMUNITY WITH RELIABLE, HIGH QUALITY PRODUCTS THAT MEET OR EXCEED INDUSTRY STANDARDS AND SAFETY REQUIREMENTS. VON GAHLEN RADIATION SHIELDING PRODUCTS MAY BE FOUND ALL OVER THE WORLD, RANGING FROM THE SMALLEST SYRINGE SHIELD TO THE LARGEST TURNKEY HOT CELL INSTALLATIONS.

VON GAHLEN SUPPLIES BOTH STANDARD AND CUSTOM BUILT LEAD SHIELDED FURNITURE FOR THE HOT LABORATORY. THE VON GAHLEN MICROBIOLOGICAL RADIATION SHIELDED SAFETY CABINET IS THE HEART OF THE HOT LABORATORY. THIS CABINET MEETS THE HIGH DEMANDS FOR SAFE PREPARATION OF RADIOPHARMACEUTICALS IN A CLEAN ENVIRONMENT. FOR ISOTOPE HANDLING AND STORAGE VON GAHLEN PROVIDES VARIOUS CUPBOARDS AND DRAWERS IN MODULAR SYSTEMS. THE SYRINGE SHIELDS AND SYRINGE CARRIERS PROTECT THE EMPLOYEES IN THEIR DAILY ROUTINE.

MOST OF THE RADIOPHARMACEUTICALS RECEIVED IN THE NUCLEAR MEDICINE DEPARTMENTS IN EUROPE ARE PACKED IN A LEAD CONTAINER MANUFACTURED BY VON GAHLEN, WHICH RESULTS IN A PRODUCTION OF OVER 500.000 CONTAINERS PER YEAR.

FOR INFORMATION ON OUR HOT CELL PRODUCT LINE PLEASE REFER TO OUR HOT CELL BROCHURE



MICROBIOLOGICAL RADIATION SHIELDED SAFETY CABINET CLASS II A

TYPE VG-MSC-BSL (EN 12469 CERTIFIED)

VON GAHLEN SUPPLIES A RADIATION SHIELDED SAFETY CABINET, SERIES VG-MSC-BSL II A, DESIGNED ESPECIALLY FOR THE PREPARATION OF ^{99m}Tc LABELLING KITS. IT IS AVAILABLE IN TWO SIZES, EACH WITH AN INTEGRATED ^{99m}Tc GENERATOR SAFE.

THIS SAFETY CABINET PROVIDES AN IDEAL STERILE ENVIRONMENT FOR THE PRODUCT, WHILE ALSO PROVIDING COMPLETE AND SAFE PERSONAL PROTECTION FOR THE OPERATOR. THE INTEGRATED ^{99m}Tc GENERATOR SAFE CONSISTS OF A LEAD SHIELDED DRAWER IN WHICH ONE OR TWO ^{99m}Tc GENERATOR(S) CAN BE PLACED. THE CLOSED DRAWER PROVIDES LEAD SHIELDING TO ALL SIDES. THE GENERATOR IS ELEVATED ABOVE THE WORKBENCH JUST ENOUGH TO ELUTE UNDER SAFE CIRCUMSTANCES.

THE CABINET PROVIDES PROTECTION ON THE FRONT OF THE WORK AREA BY MEANS OF A SLIDING LEAD GLASS WINDOW. THE WALLS AND WORKBENCH HAVE LEAD SHIELDING UP TO 10 MM THICK, TO PREVENT RADIATION LEAKS. AIR FLOWS WITH AN AVERAGE OF APPROX. 0,40 M / S FROM THE ABSOLUTE FILTER ON THE TOP OF THE WORK AREA TO THE WORKBENCH AND EXITS ON THE FRONT AND REAR OF THE WORKBENCH. AIR CIRCULATES THROUGH THE FRONT GRATE OF THE SAFETY CABINET INTO THE WORK AREA, FORMING A PROTECTIVE CURTAIN. AIR VOLUME AND SPEED CAN BE ADJUSTED TO MAXIMUM FLEXIBILITY. THE EC MOTOR IS BOTH ENERGY- AND COST-EFFICIENT.



FEATURES

- TC GENERATOR SAFE INCLUDING ELEVATOR FOR 1 OR 2 99^M TC GENERATOR(S) WITH 50 MM LEAD SHIELDING ON ALL SIDES
- SLIDING LEAD GLASS WINDOW
- BUILT-IN RECESSED WASTE COMPARTMENT
- SHIELDED COMPARTMENT FOR IONISATION CHAMBER
- INTEGRATION OF LCD-DISPLAY FOR DOSE CALIBRATOR IN REAR WALL

ADVANTAGES

- CONTINUOUS AIR-VELOCITY MONITORING AND AUTOMATIC ADJUSTMENT AS NECESSARY
- SEAMLESS WORK AREA WITH ROUNDED CORNERS PROVIDES EASY STERILIZATION AND OPTIMAL DECONTAMINATION
- ABSOLUTE FILTERS (H14) WITH AN EFFICIENCY OF 99,998% MPPS (EN-1822)
- PERFECT AIR DISTRIBUTION
- ROUNDED ARMREST INTEGRATED INTO WORKBENCH
- FRONT WINDOW ANGLED 8 DEGREES, ALLOWING OPERATOR BETTER FIELD OF VIEW
- LOW NOISE LEVEL
- ENERGY SAVING EC-MOTOR
- MAIN FILTER CAN EASILY BE REPLACED WITH LOW CONTAMINATION RISK

OPTIONAL

- UTILITY CONNECTIONS

TECHNICAL SPECIFICATIONS AND DIMENSIONS

	VG-MSC-BSL-170-6	VG-MSC-BSL-170-10	VG-MSC-BSL-200-6	VG-MSC-BSL-200-10
	6 MM LEAD	10 MM LEAD	6 MM LEAD	10 MM LEAD
TOTAL HEIGHT (MM)	2545	2549	2545	2549
TOTAL WIDTH EXTERNAL (MM)	1645	1655	1950	1960
HEIGHT WORKBENCH (MM)	985	989	985	989
WORKING SPACE (MM)				
WIDTH	1535	1535	1840	1840
DEPTH	600	600	600	600
HEIGHT	720	720	720	720
FREE WORKING OPENING	200	200	200	200
WIDTH LEAD GLASS	350	350	350	350
AIR VOLUMES (M ³ / H)				
RECIRCULATION	1320	1320	1580	1580
EXHAUST	445	445	530	530
TOTAL	1670	1670	2010	2010
LIGHTING (W)	2X40			
POWER CONSUMPTION	1150			
OPERATING VOLTAGE	230V / 16 AMP			
TOTAL WEIGHT	APPROXIMATELY 1400 – 2000 KILOS			

THE CONSTRUCTION OF THE WORKBENCH IS SUCH THAT IT CAN PASS THROUGH A DOOR OF 950 MM WIDTH



TC GENERATOR SAFE



THE ELEVATED GENERATOR READY FOR ELUTION

SHIELDED FUME HOOD

TYPE VG-SFH

THE SHIELDED FUME HOOD IS DESIGNED FOR SAFE MANIPULATION OF RADIOACTIVE MATERIALS. IT PROVIDES A COMPLETE AND SAFE PERSONAL PROTECTION FOR THE OPERATOR. PROTECTION ON THE FRONT OF THE WORK AREA BY MEANS OF A SLIDING LEAD GLASS WINDOW, LEAD SHIELDING OF 6MM OR 10MM THICK IN THE WALLS AND WORKBENCH.

OPTIONAL

- BUILT-IN RECESSED WASTE COMPARTMENT
- SHIELDED COMPARTMENT FOR IONIZATION CHAMBER

TECHNICAL SPECIFICATIONS (ALL SIZES IN MM.)

MODEL	6 MM LEAD SHIELDING			10 MM LEAD SHIELDING		
	SFH-1000-6	SFH-1200-6	SFH-1500-6	SFH-1000-10	SFH-1200-10	SFH-1500-10
WIDTH	1000	1200	1500	1000	1200	1500
DEPTH	600	600	600	600	600	600
HEIGHT	1170	1170	1170	1170	1170	1170
EXTERNAL WIDTH	1050	1250	1550	1050	1250	1550
TOTAL HEIGHT	3000	3000	3000	3000	3000	3000

TOTAL WEIGHT APPROX 500 KG (SFH-1000-6) TILL APPROX. 1100 KG (SFH-1500-10)

SHIELDED LAMINAR HOOD

TYPE VG-SLH

THIS SAFETY CABINET PROVIDES AN IDEAL STERILE ENVIRONMENT FOR THE RADIOPHARMACEUTICALS HANDLED IN THIS CABINET WHILE IT PROVIDES ALSO COMPLETE AND SAFE PERSONAL PROTECTION FOR THE OPERATOR. AIR FLOWS WITH AN AVERAGE OF 0,40 M/S FROM THE ABSOLUTE FILTER ON THE TOP OF THE WORK AREA TO THE WORKBENCH AND EXITS ON THE FRONT AND THE REAR OF THE WORKBENCH. AIR CIRCULATES THROUGH THE FRONT GRATE OF THE SAFETY CABINET INTO THE WORK AREA, FORMING A PROTECTIVE CURTAIN. AIR VOLUME AND SPEED CAN BE ADJUSTED TO MAXIMUM FLEXIBILITY. THE MOTOR IS BOTH ENERGY-AND COST-EFFICIENT RADIATION SHIELDING IS PROVIDED BY MEANS OF A SLIDING LEAD GLASS WINDOW IN THE FRONT. THE WALLS AND THE WORKBENCH ARE LEAD SHIELDED.

OPTIONAL

- BUILT-IN RECESSED WASTE COMPARTMENT
- SHIELDED COMPARTMENT FOR IONIZATION CHAMBER

TECHNICAL SPECIFICATIONS (ALL SIZES IN MM.)

MODEL	6 MM LEAD SHIELDING				10 MM LEAD SHIELDING			
	SLH-1000-6	SLH-1300-6	SLH-1700-6	SLH-2000-6	SLH-1000-10	SLH-1300-10	SLH-1700-10	SLH-2000-10
WIDTH	885	1190	1535	1840	885	1190	1535	1840
DEPTH	600	600	600	600	600	600	600	600
HEIGHT	720	720	720	720	720	720	720	720
EXTERNAL WIDTH	1150	1450	1850	2150	1150	1450	1850	2150
TOTAL HEIGHT	3000	3000	3000	3000	3000	3000	3000	3000

TOTAL WEIGHT APPROX 500 KG (SLH-1000-6) TILL APPROX. 1200 KG (SLH-2000-10)



SHIELDED FUME HOOD



SHIELDED LAMINAR HOOD

TUNGSTEN SYRINGE SHIELDS

A RANGE OF HIGH QUALITY TUNGSTEN SHIELDS PRIMARILY DESIGNED TO REDUCE FINGER DOSE DURING DRAWING OR INJECTING RADIONUCLIDES. THE SYRINGE IS PLACED IN THE SHIELD WITH A SCREW OR TWIST LOCK. THE SHIELDS ARE AVAILABLE IN FOUR DIAMETERS (1CC, 2-3CC, 5CC & 10CC) TO SUIT DIFFERENT MANUFACTURERS' SYRINGES COMPLETE WITH NEEDLE AND QUARD.

THE BODY OF THE SHIELD IS MADE FROM TUNGSTEN ALLOY WITH A WALL THICKNESS OF 2 MM GIVING A REDUCTION FACTOR GREATER THAN 200 WHEN DISPENSING TECHNETIUM. A CLEAR VIEW OF THE SYRINGE IS ACCESSED THROUGH THE LEAD GLASS WINDOW AND IS AIDED BY THE INTERNAL YELLOW COATING OF THE BARREL. THE WINDOW PROVIDES COMPARABLE GAMMA ATTENUATION TO THE TUNGSTEN BARREL.

STANDARD MODEL SCREW LOCK

- **MODEL VG-TSS- 1 (75)** FOR 1 ML SYRINGES
- **MODEL VG-TSS- 2 (53)** FOR 2 ML SYRINGES
- **MODEL VG-TSS- 3 (65)** FOR 3 ML SYRINGES
- **MODEL VG-TSS- 5 (65)** FOR 5 ML SYRINGES
- **MODEL VG-TSS- 10 (80)** FOR 10 ML SYRINGES

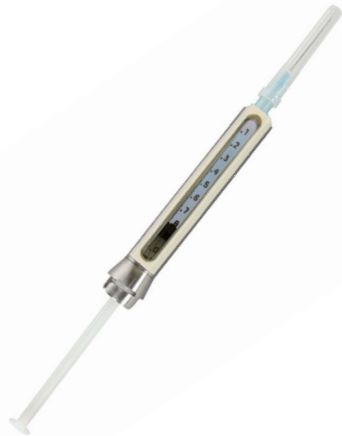
TAPERED FRONT SCREW LOCK

- **MODEL VG-TSS- 1 /S (75)** FOR 1 ML SYRINGES
- **MODEL VG-TSS- 2 /S (53)** FOR 2 ML SYRINGES
- **MODEL VG-TSS- 3 /S (65)** FOR 3 ML SYRINGES
- **MODEL VG-TSS- 5 /S (65)** FOR 5 ML SYRINGES
- **MODEL VG-TSS- 10 /S (80)** FOR 10 ML SYRINGES



STANDARD MODEL TWIST LOCK

- **MODEL VG-TSS- 1 / B (72)** FOR 1 ML SYRINGES
- **MODEL VG-TSS- 1 / B (75)** FOR 1 ML SYRINGES
- **MODEL VG-TSS- 1 / B (77)** FOR 1 ML SYRINGES
- **MODEL VG-TSS- 2 / B (53)** FOR 2 ML SYRINGES
- **MODEL VG-TSS- 2 / B (59)** FOR 2 ML SYRINGES
- **MODEL VG-TSS- 3 / B (65)** FOR 3 ML SYRINGES
- **MODEL VG-TSS- 3 / B (68)** FOR 3 ML SYRINGES
- **MODEL VG-TSS- 3 / B (76)** FOR 3 ML SYRINGES
- **MODEL VG-TSS- 5 / B (60)** FOR 5 ML SYRINGES
- **MODEL VG-TSS- 5 / B (65)** FOR 5 ML SYRINGES
- **MODEL VG-TSS- 5 / B (68)** FOR 5 ML SYRINGES
- **MODEL VG-TSS- 10 / B (75)** FOR 10 ML SYRINGES
- **MODEL VG-TSS- 10 / B (80)** FOR 10 ML SYRINGES
- **MODEL VG-TSS- 10 / B (85)** FOR 10 ML SYRINGES



TUNGSTEN SYRINGE SHIELD FOR PET

WITH SIDE SCREW TO FIX THE SYRINGE

WALL THICKNESS OF THE SYRINGE SHIELDS: 8 MM

WITHOUT LEADGLASS WINDOW

- **MODEL VG-TSS / 8- 1 (75)** FOR 1 ML SYRINGES
- **MODEL VG-TSS / 8- 2 (53)** FOR 2 ML SYRINGES
- **MODEL VG-TSS / 8- 3 (65)** FOR 3 ML SYRINGES
- **MODEL VG-TSS / 8- 5 (65)** FOR 5 ML SYRINGES
- **MODEL VG-TSS / 8-10 (80)** FOR 10 ML SYRINGES

WITH LEADGLASS WINDOW

- **MODEL VG-TSS / 8 / LG- 1 (75)** FOR 1 ML SYRINGES
- **MODEL VG-TSS / 8 / LG- 2 (53)** FOR 2 ML SYRINGES
- **MODEL VG-TSS / 8 / LG- 3 (65)** FOR 3 ML SYRINGES
- **MODEL VG-TSS / 8 / LG- 5 (65)** FOR 5 ML SYRINGES
- **MODEL VG-TSS / 8 / LG-10 (80)** FOR 10 ML SYRINGES



BETA SYRINGE SHIELD

WITH 5 MM ACRYLIC GLASS

- **MODEL VG-PG / N- 1 (75)** FOR 1 ML SYRINGES
- **MODEL VG-PG / N- 2 (53)** FOR 2 ML SYRINGES
- **MODEL VG-PG / N- 3 (65)** FOR 3 ML SYRINGES
- **MODEL VG-PG / N- 5 (65)** FOR 5 ML SYRINGES
- **MODEL VG-PG / N-10 (80)** FOR 10 ML SYRINGES



BETA-GAMMA SYRINGE SHIELD

WITH 5 MM ACRYLIC GLASS AND 2 MM TUNGSTEN

WITH LEAD GLASS WINDOW AND SIDE SCREW TO FIX THE SYRINGE

- **MODEL VG-PG(5) / W(2)- 1 (75)** FOR 1 ML SYRINGES
- **MODEL VG-PG(5) / W(2)- 2 (53)** FOR 2 ML SYRINGES
- **MODEL VG-PG(5) / W(2)- 3 (65)** FOR 3 ML SYRINGES
- **MODEL VG-PG(5) / W(2)- 5 (65)** FOR 5 ML SYRINGES
- **MODEL VG-PG(5) / W(2)- 10 (80)** FOR 10 ML SYRINGES



HI-ENERGY DOSE DRAWING AND ADMINISTER SHIELD
A SHIELDING DEVICE

FOR THE PREPARATION, TRANSPORT AND ADMINISTRATION OF PATIENT DOSES OF 18F-FDG

MODEL VG-SAE(PET)

SYRINGE - SHIELDING DEVICE FOR THE PREPARATION OF CALIBRATED AND PRE-CALIBRATED PATIENT DOSES FDG AND ITS ADMINISTRATION TO PATIENTS. THE RADIATION DOSE TO THE TECHNICIAN DURING FDG DOSE PREPARATION AND ADMINISTRATION TO THE PATIENT CAN BE REDUCED SIGNIFICANTLY (FACTOR 50-100) WITH THIS EASY HANDLING SHIELDING DEVICE*.

SEPARATE SYRINGE HOLDER

MODEL VG-SAE(PET)-SAH

SEPARATE SPECIAL LID

MODEL VG-SAE(PET)-BIK



STORAGE AND WASTE CABINET

CABINET CONSISTING OF:

- WASTE COMPARTMENT FOR SOLID WASTE, SHIELDING 5 – 35 MM LEAD
- STORAGE COMPARTMENT WITH 5 MM LEAD SHIELDING FOR RADIOACTIVE PHANTOMS
- DRAWER COMPARTMENT FOR STORAGE OF RADIOISOTOPES. SHIELDING 10 – 30 MM LEAD
- TABLETOP HIGH QUALITY PHENOLIC RESIN OR STAINLESS STEEL



STORAGE CABINET INCLUDING SHIELDED REFRIGERATOR

CABINET CONSISTING OF:

- REFRIGERATOR SHIELDED WITH 5 OR 10 MM LEAD
- DRAWER COMPARTMENT FOR RADIOISOTOPES. SHIELDING 10 – 30 MM LEAD
- TABLETOP HIGH QUALITY PHENOLIC RESIN OR STAINLESS STEEL



LABORATORY TABLE

TABLE SPECIALLY DESIGNED FOR THE SUPPORT OF HEAVY OBJECTS IN A HOT LAB ROOM SUCH AS ISOTOPE WORK STATIONS AND ISOTOPE STORAGE SAFES.

SUPPORT CONSTRUCTED OF PROFILES WITH FRAMEWORK AND ISOLATED AGAINST NOISE AND MOISTURE. COVERED WITH EASY TO DECONTAMINATE STAINLESS STEEL TABLE TOP WITH 8 MM RIM. COLOUR RAL 1013 (OYSTER WHITE).

MODEL	DIMENSIONS
VG-PT/S/L-15/7/9	1500 X 700 X 900 (W X D X H)
VG-PT/S/L-20/7/9	2000 X 700 X 900 (W X D X H)
VG-PT/S/L-25/7/9	2500 X 700 X 900 (W X D X H)
VG-PT/S/L-30/7/9	3000 X 700 X 900 (W X D X H)



SYRINGE HOLDER

THE LEAD SHIELDED SYRINGE HOLDER CAN ACCOMMODATE SYRINGES FROM 2 ML TO 10 ML.
WIDE BASE FOR STABILITY. LEAD SHIELDING IS 8 MM.

MODEL VG-ZT-E

STAINLESS STEEL COVER

WEIGHT APPROX. 1,8 KG

INNER DIAMETER	20 MM
INNER HEIGHT	140 MM
OUTER DIAMETER	40 MM
OUTER HEIGHT	150 MM
OUTER DIAMETER GROUND PLATE	65 MM
HEIGHT GROUND PLATE	10 MM

MODEL VG-ZT-L

PAINTED STEEL COVER

COLOUR RAL 1013 (OYSTER WHITE)

WEIGHT APPROX. 1,6 KG



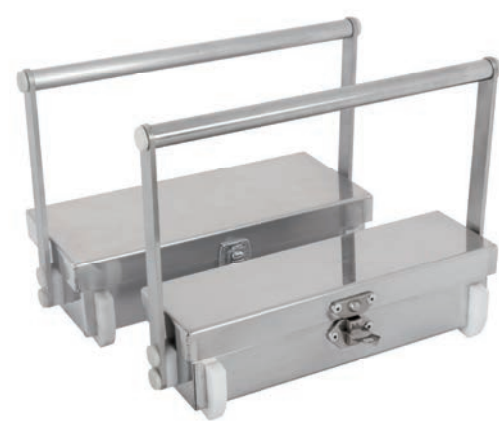
SYRINGE CARRIERS

CONSTRUCTED FROM STAINLESS STEEL FOR TRANSPORT OF LOADED SYRINGES OR SMALL RADIOACTIVE SOURCES. THE INTERNAL SURFACES OF THE CARRIERS HAVE EASY TO CLEAN PLASTIC LININGS.
COMPLETE WITH REMOVABLE PLASTIC TRAY.

THE SYRINGE CARRIERS ARE AVAILABLE IN TWO SIZES WITH A CHOICE OF 3 MM OF 6 MM LEAD SHIELDING.

MODEL	INSIDE DIMENSIONS *	LEAD SHIELDING	WEIGHT APPROX.
MODEL VG-TB-S/3-E	213 X 39 X 40 MM	3 MM	4 KG
MODEL VG-TB-S/6-E	213 X 39 X 40 MM	6 MM	7,5 KG
MODEL VG-TB-L/3-E	213 X 82 X 40 MM	3 MM	5 KG
MODEL VG-TB-L/6-E	213 X 82 X 40 MM	6 MM	9 KG

* (INSIDE DIMENSIONS OF THE REMOVABLE PLASTIC TRAY APPROX. (W X D X H))



SYRINGE CARRIER FOR PET SYRINGES

MODEL VG-TB-PET-E

CONSTRUCTED FROM STAINLESS STEEL WITH LEAD SHIELDING AND WITH A WHITE PVC COATING.
COMPLETE WITH REMOVABLE PLASTIC TRAY. MODEL WITH A HINGED COVER AS WELL AS WITH A FIRM CARRYING HANDLE AND WITH 20MM LEAD SHIELDING ON THE LEFT AND RIGHT SIDE. THE OTHER SIDES HAVE 10MM LEAD SHIELDING.

INSIDE DIMENSIONS OF THE REMOVABLE PLASTIC TRAY APPROX. 190 X 40 X 30 MM (W X D X H)
WEIGHT APPROX. 9 KG.



VIAL HANDLING TONG

MODEL VG-Z-25 / 10 / SP

FOR A FIRM AND REMOTE HOLD OF ISOTOPE VIALS.

LENGTH 250 MM, HEIGHT 100 MM



MODEL VG-Z-28 / 7 / SC

TO GRIP VIALS OUT OF A CONTAINER WITH A SMALL INSIDE DIAMETER.

LENGTH 280 MM, HEIGHT 70 MM

SHARPS CONTAINER SHIELD

FOR THE STORAGE OF A SHARPS CONTAINER (E.G. RIGI-BOX TWIN 1800)

WITH 3 MM LEAD SHIELDING

MODEL VG-B / 3-R / 1800

WEIGHT APPROX. 12 KG

STANDARD COLOUR RAL 1013 (OYSTER WHITE)



ELUTION VIAL SHIELD

FOR THE SHIELDING OF A VIAL DURING THE ELUTION. LEADGLASS WINDOW ON TWO SIDES. INSIDE HEIGHT APPROX. 62 MM, INSIDE DIAMETER APPROX. 27 MM. 4 MM LEAD SHIELDING. COVERED WITH STAINLESS STEEL COVERED WITH A SCREW CAP WITH AN ORIFICE FOR INJECTION PURPOSES. WEIGHT 0,6 KG



TRANSPORT CONTAINER WITH CART FOR PET ISOTOPES

MODEL VG-TR (PET)

TRANSPORT CART DESIGNED TO USE IN A CLEAN ROOM FACILITY. OUTER LEAD SHIELD FIXED IN CART AND PROVIDES 35 MM PB SHIELDING. INNER LEAD SHIELD, WHICH IS REMOVABLE AND HAS A CARRYING GRIP, PROVIDES 15 MM PB SHIELDING.

INTERNAL DIMENSIONS 45 MM DIAMETER X 80 MM HIGH

WIDE WHEEL BASE FOR EASE OF MOBILITY. SIMPLE ERGONOMIC DESIGN. CONTAINER IS EPOXY PAINTED IN RAL 1013 (OYSTER WHITE). CART OUT OF STAINLESS STEEL.



FLOOR STANDING WASTE CONTAINER

WHITE ENAMELLED PEDAL BIN AVAILABLE WITH A CHOICE OF 3 MM OR 6 MM LEAD SHIELDING. DESIGNED FOR STORAGE OF CONTAMINATED GENERAL WASTE WHEN USED IN CONJUNCTION WITH DISPOSABLE PLASTIC LINERS. SPECIAL FEATURES INCLUDE A GAS SPRING ASSISTED LID FOR SMOOTH AND CONTROLLED ACTION. THE TOTAL CAPACITY OF THE BIN IS APPROX. 15 LITRES

TECHNICAL SPECIFICATIONS AND DIMENSIONS

	MODEL VG-AB-15 / 3	MODEL VG-AB-15 / 6
LEAD SHIELDING	3 MM	6 MM
CAPACITY	APPROX. 15 L	APPROX. 15 L
INSIDE DIMENSIONS (W X D X H)	170 X 170 X 530 MM	170 X 170 X 530 MM
OUTSIDE DIMENSIONS (W X D X H)	230 X 330 X 690 (950) MM	230 X 330 X 690 (950) MM
WEIGHT	APPROX. 33 KG.	APPROX. 52 KG.
COLOUR	RAL 1013 (OYSTER WHITE)	RAL 1013 (OYSTER WHITE)



MOVEABLE SHIELDED WASTE TRANSPORT CART

VG-FE-50/10

WASTE TRANSPORT CART WITH 10MM LEAD SHIELDING AND A CAPACITY OF APPROX. 50 LITER.
OUTSIDE DIMENSIONS 480 X 620 X 950 MM (W X D X H).
COMPLETE WITH BAR AND DOUBLE SLIDING TOP LID.
STANDARD COLOUR RAL 1013 (OYSTER WHITE)



TABLE TOP WASTE CONTAINER

WASTE CONTAINER WITH A CAPACITY OF APPROX. 4 LTR AND A DETACHABLE INTERNAL LID.
INSIDE DIMENSIONS APPROX. DIAMETER 150 MM, HEIGHT 230 MM.
STANDARD COLOUR RAL 1013 (OYSTER WHITE)

MODEL WITH 10 MM LEAD SHIELDING: VG-TA/10-D150/H230, WEIGHT APPROX. 20 KG
MODEL WITH 25 MM LEAD SHIELDING: VG-TA/25-D150/H230, WEIGHT APPROX. 54 KG



WASTE CONTAINER FOR RADIOACTIVE WASTE FOR PET

MODEL VG-AB/20-150 X 150 X 400

WITH TWO COMBINED LIDS, ONE FOR WASTE DISPOSAL, ONE FOR EMPTYING THE CONTAINER.

20 MM LEAD SHIELDING WHICH IS STEEL COVERED.

INSIDE DIMENSIONS 150 X 150 X 400 MM (W X D X H)

WASTE DISPOSAL OPENING 50 X 50 MM.

TOTAL WEIGHT APPROX. 95 KG.

STANDARD COLOUR RAL 1013 (OYSTER WHITE)



TABLE TOP BARRIER

TABLE TOP BARRIER WITH LEAD GLASS WINDOW

TO PROTECT AGAINST RADIATION DURING PREPARATION AND HANDLING OF RADIOPHARMACEUTICALS

BASE	360 X 430 MM (W X D)	TOTAL HEIGHT	APPROX. 480 MM
LEAD GLASS WINDOW	350 X 280 MM (W X H)	COLOUR	RAL 1013 (OYSTER WHITE)
FRONT	360 X 250 MM (W X H)		

LEAD SHIELDING

• MODEL VG-TTB(RD-50)-5	5 MM	• MODEL VG-TTB(5.2D)-30	30 MM
• MODEL VG-TTB(RD-50)-10	10 MM	• MODEL VG-TTB(5.2D)-50	50 MM
• MODEL VG-TTB(5.2D)-20	20 MM		



ION CHAMBER SHIELDING

TYPE VG-IC

ADDITIONAL SHIELDING FOR THE REMOTE IONIZATION CHAMBER TO PROVIDE A MAXIMUM PROTECTION TO PERSONNEL WORKING WITH HIGH ENERGY RADIO NUCLIDES E.G. 18-FDG.

LEAD SHIELDING 50 MM OR 75 MM, COMPLETE WITH CABLE PASS THROUGH. SUPPLIED WITH SUPPORT TABLE.

INSIDE DIMENSIONS ACCORDING TO ION CHAMBER SYSTEM

AVAILABLE FOR MOST BRANDS OF ION CHAMBER SYSTEMS.

STANDARD COLOUR RAL 1013 (OYSTER WHITE)

MODEL VG-ICT/50

50MM LEAD SHIELDING

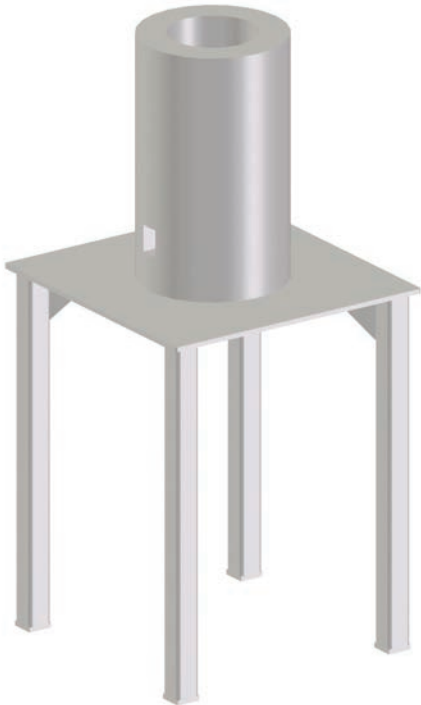
WEIGHT APPROX. 212 KG.

MODEL VG-ICT/75

75MM LEAD SHIELDING

WEIGHT APPROX. 350 KG.

OTHER THICKNESS OF SHIELDING ON REQUEST



INTERLOCKING LEAD BRICK SHIELDING SYSTEM

LEAD BRICKS WITH 50 MM SHIELDING MADE OF PBSB4, ACCORDING TO DIN 25407

			L	H	T	W
	NN1	NORMAL BRICK	100	100	50	5,60
	NB1	NORMAL BASE BRICK	100	15	50	1,54
	NS1	NORMAL TOP BRICK	100	85	50	4,06
	DN1	HALF NORMAL BRICK	50	100	50	2,80
	DB1	HALF NORMAL BASE BRICK	50	15	50	0,77
	DS1	HALF NORMAL TOP BRICK	50	85	50	2,03
	DN1N	QUARTER NORMAL BRICK	50	50	50	1,40
	LN1	LONG BRICK	200	100	50	11,20
	LB1	LONG BASE BRICK	200	15	50	3,08
	LS1	LONG TOP BRICK	200	85	50	8,12
	LS1N	LONG TOP BRICK, LOW	200	35	50	2,52
	CN1	START BRICK	100	100	50	6,30
	CB1	START BASE BRICK	100	15	50	1,73
	CS1	START TOP BRICK	100	85	50	4,56
	CS1N	START TOP BRICK, LOW	100	35	50	1,42
	QN1	SWITCH BRICK	0	100	50	1,40
	QB1	SWITCH BASE BRICK	0	15	50	0,39
	QS1	SWITCH TOP BRICK	0	85	50	1,02
	QS1N	SWITCH TOP BRICK, LOW	0	35	50	0,32
	XN1	SWALLOW-TAIL BRICK	100	100	50	4,20
	XB1	SWALLOW-TAIL BASE BRICK	100	15	50	1,16
	XS1	SWALLOW-TAIL TOP BRICK	100	85	50	3,05
	EN1	END BRICK	100	100	50	4,90
	EB1	END BASE BRICK	100	15	50	1,35
	ES1	END TOP BRICK	100	85	50	3,55
	ES1N	END TOP BRICK, LOW	100	35	50	1,10
	AN1	CORNER BRICK	150	100	50	8,40
	AB1	CORNER BASE BRICK	150	15	50	2,31
	AS1	CORNER TOP BRICK	150	85	50	6,09
	AS1N	CORNER TOP BRICK, LOW	150	35	50	1,89
	ZN1	PARTITION WALL BRICK	100	100	50	4,90
	ZB1	PARTITION WALL BASE BRICK	100	15	50	1,35
	ZS1	PARTITION WALL TOP BRICK	100	85	50	3,55
	ZS1N	PARTITION WALL TOP BRICK, LOW	100	35	50	1,10
	WN1	ANGLE CORNER BRICK	100	100	50	8,40
	WB1	ANGLE CORNER BASE BRICK	100	15	50	2,31
	WS1	ANGLE CORNER TOP BRICK	100	85	50	6,09
	WN11	ANGLE CORNER BRICK, LONG	150	100	50	14,00
	WB11	ANGLE CORNER BASE BRICK, LONG	150	15	50	3,85
	WS11	ANGLE CORNER TOP BRICK, LONG	150	85	50	10,15

L = LENGTH (MM)

H = HEIGHT (MM)

T = THICKNESS (MM)

W = WEIGHT (KG)

ISOTOPE WORK STATIONS

VON GAHLEN SUPPLIES ISOTOPE WORK STATIONS IN U-FORM OR CLOSED CONFIGURATION, BUILT FROM LEAD BRICKS OF 50 MM, PBSB4, ACCORDING TO DIN 25407.

STANDARD COLOUR RAL 1013 (OYSTER WHITE)

THE ISOTOPE WORK STATION CAN BE COMPLETED WITH A LEAD GLASS WINDOW, BOTTOM PLATES AND A STAINLESS STEEL TRAY.



ISOTOPE WORK STATION U-FORM CONFIGURATION

MODEL VG-BB-I / U

- SIZE I: WEIGHT APPROX. 220 KG
- INTERNAL DIMENSIONS: 500 X 350 X 300 MM (W X D X H)
- EXTERNAL DIMENSIONS: 600 X 400 X 300 MM (W X D X H)

MODEL VG-BB-II / U

- SIZE II: WEIGHT APPROX. 255 KG
- INTERNAL DIMENSIONS: 700 X 350 X 300 MM (W X D X H)
- EXTERNAL DIMENSIONS: 800 X 400 X 300 MM (W X D X H)

MODEL VG-BB-III / U

- SIZE III: WEIGHT APPROX. 290 KG
- INTERNAL DIMENSIONS: 900 X 350 X 300 MM (W X D X H)
- EXTERNAL DIMENSIONS: 1000 X 400 X 300 MM (W X D X H)

BOTTOM PLATE WITH 20 MM (2X10) MM LEAD SHIELDING

- MODEL VG-BP-I / U SIZE I WEIGHT APPROX. 40 KG
- MODEL VG-BP-II / U SIZE II WEIGHT APPROX. 56 KG
- MODEL VG-BP-III / U SIZE III WEIGHT APPROX. 72 KG

STAINLESS STEEL TRAY FOR U-FORM CONFIGURATION

- MODEL VG-I / U-E SIZE I
- MODEL VG-II / U-E SIZE II
- MODEL VG-III / U-E SIZE III

ISOTOPE WORK STATION CLOSED CONFIGURATION

MODEL VG-BB-I / G

- SIZE I: WEIGHT APPROX. 375 KG
- INTERNAL DIMENSIONS: 500 X 500 X 300 MM (W X D X H)
- EXTERNAL DIMENSIONS: 600 X 600 X 300 MM (W X D X H)

MODEL VG-BB-II / G

- SIZE II: WEIGHT APPROX. 443 KG
- INTERNAL DIMENSIONS: 700 X 500 X 300 MM (W X D X H)
- EXTERNAL DIMENSIONS: 800 X 600 X 300 MM (W X D X H)

MODEL VG-BB-III / G

- SIZE III: WEIGHT APPROX. 510 KG
- INTERNAL DIMENSIONS: 900 X 500 X 300 MM (W X D X H)
- EXTERNAL DIMENSIONS: 1000 X 600 X 300 MM (W X D X H)

BOTTOM PLATE WITH 20 MM (2X10) MM LEAD SHIELDING

- MODEL VG-BP-I / G SIZE I WEIGHT APPROX. 57 KG
- MODEL VG-BP-II / G SIZE II WEIGHT APPROX. 80 KG
- MODEL VG-BP-III / G SIZE III WEIGHT APPROX. 102 KG

STAINLESS STEEL TRAY FOR U-FORM CONFIGURATION

- MODEL VG-I / G-E SIZE I
- MODEL VG-II / G-E SIZE II
- MODEL VG-III / G-E SIZE III

LEAD GLASS WINDOW WITH STEEL FRAME FOR ISOTOPE WORK STATION

MODEL VG-BLG(RW-36)-20

- MINIMUM HEIGHT OF ISOTOPE WORK STATION 300 MM, THICKNESS 50 MM
- THE WINDOW IS MOUNTED UNDER AN ANGLE OF 45°
- DIMENSIONS LEAD GLASS WINDOW 240 X 200 MM (W X H)
- LEAD GLASS PROTECTION 20 MM PB EQUIVALENT
- TWO-SIDED GRINDED AND POLISHED

SLIDING DRAWER ISOTOPE STORAGE SAFE

INSIDE DIMENSIONS:

- **MODEL VG-T-D / A** 200 X 200 X 250 MM (W X D X H)
- **MODEL VG-T-D / B** 300 X 300 X 300 MM (W X D X H)
- **MODEL VG-T-D / C** 300 X 400 X 400 MM (W X D X H)

LEAD SHIELDING IS AVAILABLE IN THICKNESSES OF EITHER 25 MM OR 50 MM. THE SAFE IS FABRICATED OF LEAD, ENCASED IN PROTECTIVE STEEL. STANDARD COLOUR RAL 1013 (OYSTER WHITE).



ISOTOPE STORAGE SAFE

INSIDE DIMENSIONS:

- **MODEL VG-T-E / A** 200 X 200 X 200 MM (W X D X H)
- **MODEL VG-T-E / B** 300 X 300 X 300 MM (W X D X H)
- **MODEL VG-T-E / C** 300 X 400 X 400 MM (W X D X H)

LEAD SHIELDING IS AVAILABLE IN THICKNESSES OF EITHER 25 MM OR 50 MM. THE SAFE IS FABRICATED OF LEAD, ENCASED IN PROTECTIVE STEEL. STANDARD COLOUR RAL 1013 (OYSTER WHITE).



LEAD SCREENS FOR PERSONNEL PROTECTION

MOBILE PROTECTIVE SCREEN

THIS MOBILE SCREEN IS DESIGNED FOR NUCLEAR MEDICINE PROCEDURES AND CAN BE PLACED BETWEEN THE GAMMA CAMERA OR PATIENT AND PERSONNEL TO REDUCE RADIATION EXPOSURE. THE PROTECTIVE SCREEN IS ALSO AVAILABLE WITH A LEAD GLASS WINDOW IN THE UPPER SECTION. THE COLOUR OF THE LEAD SCREEN IS WHITE. STANDARD COLOUR STEEL FRAME RAL 1013 (OYSTER WHITE).

MODEL VG-FW-12 / 7,5 / 2

LEAD SHIELDING 2 MM

DIMENSIONS 1.200 X 750 X 700 MM (H X W X D)

WEIGHT APPROX. 65 KG

MODEL VG-FW-15 / 10 / 2

LEAD SHIELDING 2 MM

DIMENSIONS 1.500 X 1.000 X 700 MM (H X W X D)

WEIGHT APPROX. 80 KG

MODEL VG-FW / S-15 / 6 / 10 / 2

LEAD SHIELDING 2 MM WITH LEAD GLASS WINDOW

DIMENSIONS 1.500 X 1.000 X 700 MM (H X W X D)

DIMENSIONS LEAD GLASS WINDOW

600 (575) X 1000 (975) MM (H X W)

WEIGHT APPROX. 82 KG

MODEL VG-FW-15 / 10 / 10

LEAD SHIELDING 10 MM; STEEL PLATED 5 MM ON 2 SIDES

DIMENSIONS 1.500 X 1.000 X 700 MM (H X W X D)

WEIGHT APPROX. 280 KG



MOBILE PROTECTIVE SCREEN FOR PET

MODEL VG-FW / PET-14 / 6 / 30

LEAD SHIELDING 30 MM WITH LEAD GLASS WINDOW (5.2D)

DIMENSIONS 1.435 X 610 X 630 MM (H X W X D)

WIDTH OF SCREEN 415 MM

DIMENSIONS LEAD GLASS WINDOW 300 X 200 X 80 MM

WEIGHT APPROX. 208 KG



LEAD SHIPPING CONTAINERS

FOR THE TRANSPORT OF RADIOPHARMACEUTICALS IN VIALS AND CAPSULES WITH A WALL THICKNESS OF 2-30 MM



MODEL	INTERNAL DIMENSIONS (MM)		EXTERNAL DIMENSIONS (MM)		LEAD THICKNESS (MM)	WEIGHT (KG)
	DIAMETER	HEIGHT	DIAMETER	HEIGHT		
VG-LP-2	28,7	63,6	32,8	68,5	2	0.20
VG-LP-4	33,5	69,2	41,2	78,2	4	0.48
VG-LP-5	31	70,5	41	82,2	5	0.62
VG-LP-10	31	70,5	50,5	93,3	10	1.50
VG-LP-12	33,4	69	57	93,7	12	2.02
VG-LP-17	33,4	69	67	103,7	17	3.44
VG-LP-20	32	70	72	110,8	20	4.45
VG-LP-22	31	75,5	75	120	22	5.32
VG-LP-25	32	70	82	120,8	25	6.56
VG-LP-30	32	70	92	130,8	30	9.18

STANDARD COLOUR RAL 9010 (PURE WHITE). OTHER COLOURS ON REQUEST.

VARIOUS MODELS FOR IODINE-131 CAPSULES ON REQUEST.

LEAD CONTAINER WITH REMOVABLE LEAD STOP

MODEL VG-RLS-CONTAINER

LEAD CONTAINER WITH AN OVERALL SHIELDING OF 30MM PB, SUITABLE FOR VIALS.
COMPLETE WITH REMOVABLE LEAD STOP PROVIDING EASY ACCESS FOR DOSE DRAWING.
WEIGHT APPROX. 8.4 KG.
STANDARD COLOUR RAL 5010 (GENTIAN BLUE)



TYPE A PACKAGING

MODEL VG-TYPE-A/BVC

THIS RE-USABLE TYPE A PACKAGING IS DESIGNED AND TESTED FOR THE SAFE TRANSPORT OF PET RADIOPHARMACEUTICALS IN VIALS BY ROAD, AIR, SEA AND INLAND WATERWAYS. THE PACKAGING HAS BEEN TESTED AND CERTIFIED ACCORDING TO THE REQUIREMENTS OF THE IAEA REGULATIONS TS-R-1 (ST-1 AS AMENDED 2003).

THE PACKAGING EXISTS OF:

- A 15 LITER PLASTIC CONTAINER, WHICH IS CLOSED BY AN EASY TO USE LID. THE CONTAINER CAN BE OPENED OR CLOSED WITH JUST A QUARTER-TURN. THIS LID CAN BE SEALED USING A TAMPER RESISTANT PIN.
- INSIDE THE PLASTIC CONTAINER IS AN EXPANDABLE POLYPROPYLENE (EPP) INSERT FOR SHOCK PROTECTION.
- THE INSERT CONTAINS A LEAD SHIELDED CONTAINER WITH A PLASTIC HOUSING. THE DESIGN IS USER FRIENDLY, EASY TO CLEAN YET VERY ROBUST. TAPERED OPENING ENABLES EASY LOADING OF THE VIAL. THE HANDLE CAN BE FOLDED DOWN TO FIT INTO THE EPP INSERT. THE HOUSING HAS TWO SPACES FOR BAR CODE LABELS. OPTIONAL: IDENTIFICATION (RFID) CHIP

TOTAL WEIGHT 10,2 KG

RADIATION SAFETY AND TRANSPORT SPECIFICATIONS:

MAXIMUM SHIPPING ACTIVITY	TRANSPORT CATEGORY	EXTERNAL RADIATION LEVEL
6.50 GBQ (174 mCi)	II-YELLOW	<0.5 mSv/h
26.0 GBQ (700 mCi)	III-YELLOW	<2 mSv/h
130 GBQ (3.5 Ci)	III-YELLOW ^B	<10 mSv/h

PARTS SPECIFICATIONS WITH IDENTIFICATION NUMBER:

PLASTIC CONTAINER (VG-TYPE-A/B)

- 15 LITER
- OUTER DIMENSIONS; Ø 338MM, HEIGHT 297MM

EPP INSERT (VG-TYPE-A/EPP)

TAMPER RESISTANT PINS (VG-TYPE-A/TEP)

LEAD CONTAINER (VG-TYPE-A/C)

- WEIGHT 8,4 KG
- AIRTIGHT AND WATERPROOF
- 30MM LEAD SHIELDING IN ALL DIRECTIONS
- OUTER DIMENSIONS: Ø 117MM, HEIGHT 180MM
- FITS UP TO 20 ML VIALS

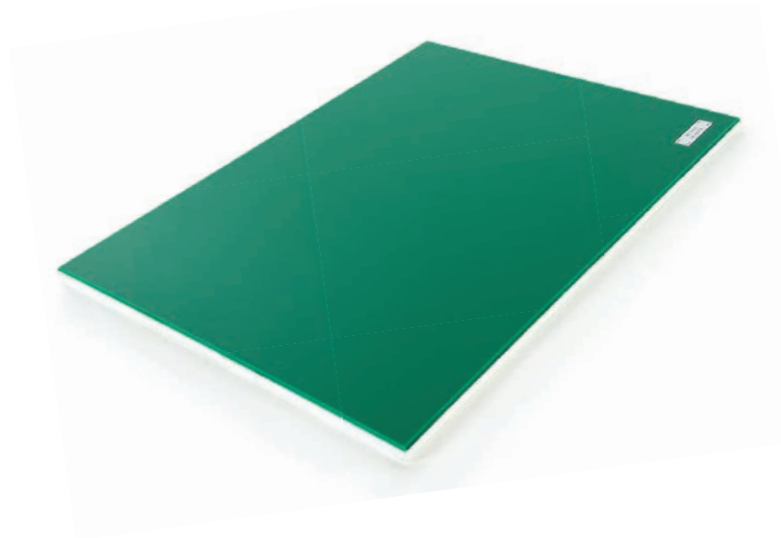


BAR PHANTOM

WITH BAR WIDTHS OF 2, 3, 4 AND 5 MM

MODEL VG-BP-560X420

- OUTSIDE DIMENSIONS: 600 X 460 X 16 MM (H X W X D)
- TOTAL USEFUL FIELD OF VIEW (UFOV): 560 X 420 MM
- WEIGHT: APPROX. 9,5 KG



FLOOD PHANTOM WITH UNIQUE MIXING SYSTEM

ACCORDING DIN 6855

VON GAHLEN HAS DEVELOPED A FLOOD PHANTOM TO PERFORM UNIFORMITY STUDIES IN YOUR DESIRED ENERGY RANGE. THE PHANTOM PROVIDES A NUMBER OF ADVANTAGES.

- THE PHANTOM COMES COMPLETE WITH A CART.
- THE PHANTOM CAN BE EASILY ROTATED FOR HOMOGENEOUS MIXING.
- ANY AIR BUBBLES ARE COLLECTED IN A TRAP OUTSIDE THE FIELD OF VIEW.
- THE PHANTOM CAN BE POSITIONED ABOVE OR BELOW THE GAMMA CAMERA.
- THIS FLOOD PHANTOM IS EASY AND SIMPLE TO USE.

SPECIFICATIONS

MODEL VG-P / K-T-600 / 450 / 41 (AS SHOWN)

- THE ACRYLATE PHANTOM IS SUITABLE FOR LARGE FIELD OF VIEW CAMERAS
- INSIDE DIMENSIONS OF THE ACRYLATE PHANTOM: 600 X 450 X 41 MM (H X W X D)
- WALL THICKNESS OF THE ACRYLATE PHANTOM: TOP / BOTTOM: 20 MM, SIDEWALLS: 25 MM

MODEL VG-P / K-600 / 450 / 41

- WITHOUT TRANSPORT CART

MODEL VG-P / K-T / SB-600 / 450 / 41

- WITH TRANSPORT CART OF WHICH THE SUPPORT CAN BE REVOLVED

MODEL VG-P / K-T / S-600 / 450 / 41

- WITH TRANSPORT CART OF WHICH THE SUPPORT CAN BE REVOLVED
- PHANTOM CAN BE TAKEN OUT AND ADJUSTED IN HEIGHT (800-1000 MM)



OTHER MODELS FOR SPECIFIC CAMERAS ON REQUEST.



ECT PHANTOMS

• ULTRA DELUXE JASZCZAK PHANTOM	ECT/UL-DLX/P
• DELUXE JASZCZAK PHANTOM	ECT/DLX/P
• STANDARD JASZCZAK PHANTOM	ECT/STD/P
• BENCHMARK JASZCZAK PHANTOM	ECT/BEN/P
• FLANGELESS DELUXE JASZCZAK PHANTOM	ECT/FL-DLX/P
• FLANGELESS ESSER PET PHANTOM	PET/FL/P
• FLANGELESS ESSER PET PHANTOM, 2ND DELUXE ECT LID	PET/FL-X2/P
• ELLIPTICAL JASZCZAK PHANTOM	ECT/ELP/P
• ELLIPTICAL LUNG-SPINE BODY PHANTOM	ECT/LUNG/P
• ANTHROPOMORPHIC TORSO PHANTOM (LIVER, LUNG AND SPINE)	ECT/TOR/P
• ANTHROPOMORPHIC TORSO PHANTOM, WITH LIQUID BONE SPINE	ECT/TOR-LB/P
• HOFFMAN 2D BRAIN PHANTOM	BR/2D/P
• HOFFMAN 2D MULTI-COMPARTMENT BRAIN PHANTOM	BR/2D-MC/P
• HOFFMAN 3D BRAIN PHANTOM	BR/3D/P
• PET CT PHANTOM	PET/CT/P
• NEMA SPECT TRIPLE LINE SOURCE PHANTOM (NU 1-2007)	ECT/NEMA-TRI/P
• NEMA 94 PET PHANTOM (NU 2-1994)	PET/NEMA94/P
• NEMA PET SCATTER PHANTOM (NU 2-2007)	PET/NEMA-SCT/P
• NEMA IEC PET BODY PHANTOM (NU 2-2007)	PET/IEC-BODY/P
• NEMA PET SENSITIVITY PHANTOM (NU 2-2007)	PET/NEMA-SEN/P
• EXTENDED OVAL PET PHANTOM	PET/EX-OV/P

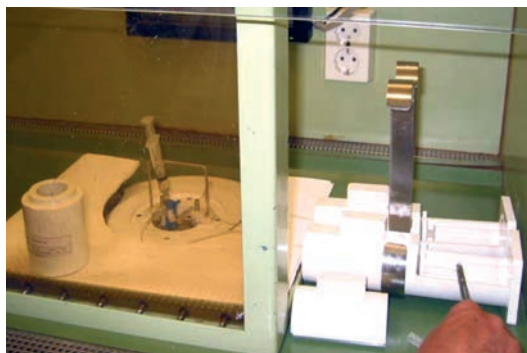
ECT PHANTOMS

• 3D GEOMETRY MRI PHANTOM	MRI/3D-GEO/P
• 3D KNEE MRI PHANTOM (CUSTOM PHANTOM)	MRI/3D-KNEE/P
• SMALL HIGH RESOLUTION SPECT PHANTOM	ECT/SM-HI/P
• SMALL SPECT PHANTOM	ECT/SM/P
• SMALL ESSER PET PHANTOM	PET/SM/P
• NEMA PET SMALL ANIMAL PHANTOM (NU 4-2008)	PET/SA/P

MINI - MACRO PHANTOMS

• MINI DEFRISE PHANTOM	ECT/DEF/MP
• MINI DEFRISE INSERT	ECT/DEF-MP/I
• MINI DELUXE PHANTOM	ECT/DLX/MP
• MINI DELUXE COLD ROD INSERT	ECT/DLX-MP/I
• MINI HOT SPOT PHANTOM	ECT/HOT/MP
• MINI HOT SPOT INSERT	ECT/HOT-MP/I
• MINI CYLINDER, W/LID	ECT/MP/CY
• MICRO DEFRISE PHANTOM	ECT/DEF/MMP
• MICRO DEFRISE INSERT	ECT/DEF-MMP/I
• MICRO DELUXE PHANTOM	ECT/DLX/MMP
• MICRO DELUXE COLD ROD INSERT	ECT/DLX-MMP/I
• MICRO HOT SPOT PHANTOM	ECT/HOT/MMP
• MICRO HOT SPOT INSERT	ECT/HOT-MMP/I
• MICRO CYLINDER ASSEMBLY, W/LID	ECT/MMP/CY
• MICRO HOLLOW SPHERE PHANTOM	ECT/HS/MMP
• ULTRA MICRO DEFRISE PHANTOM	ECT/DEF/UMMP
• ULTRA MICRO DEFRISE INSERT	ECT/DEF-UMMP/I
• ULTRA MICRO HOT SPOT PHANTOM	ECT/HOT/UMMP
• ULTRA MICRO HOT SPOT INSERT	ECT/HOT-UMMP/I
• ULTRA MICRO CYLINDER, W/LID	ECT/UMMP/CY

INSERTS AND ACCESSOIRES ON REQUEST



A SHIELDING DEVICE

FOR THE PREPARATION, TRANSPORT AND ADMINISTRATION
OF PATIENT DOSES OF ^{18}F -FDG

MODEL VG-SAE(PET)-1599

E.B. KOENDERS, F.H.M. CORSTENS UMC  St Radboud

UNIVERSITY MEDICAL CENTER NIJMEGEN, DEPARTMENT OF NUCLEAR MEDICINE, THE NETHERLANDS

INTRODUCTION

THE CLINICAL USE OF ^{18}F -DEOXYGLUCOSE (FDG) FOR POSITRON EMISSION TOMOGRAPHY (PET) IS THE FASTEST GROWING IMAGING MODALITY OF ALL RADIOLOGIC SCIENCES. IN OUR DEPARTMENT, 1000-1200 ^{18}F -FDG (250 MBQ) SCANS ARE CARRIED OUT ANNUALLY. RADIOPHARMACEUTICALS SHOULD BE PREPARED IN A MANNER WHICH SATISFIES BOTH RADIATION SAFETY AS WELL AS PHARMACEUTICAL QUALITY REQUIREMENTS. PROPER SHIELDING OF ^{18}F DURING HANDLING IS DIFFICULT, SINCE THE HIGH ENERGY GAMMA IRRADIATION (511 KEV) REQUIRES RELATIVELY THICK AND HEAVY SHIELDING DEVICES.

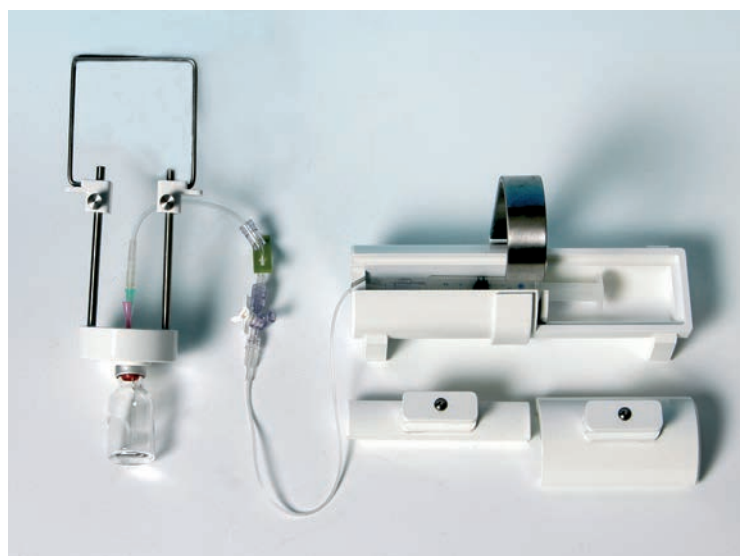
HERE, WE PRESENT THE DEVELOPMENT AND CHARACTERIZATION OF A SYRINGE-SHIELDING DEVICE FOR THE PREPARATION OF CALIBRATED AND PRE-CALIBRATED PATIENT DOSES FDG AND ITS ADMINISTRATION TO PATIENTS. THIS SYSTEM IS NOW COMMERCIALY AVAILABLE. (PATENT PENDING).

MATERIALS, METHODS & MEASUREMENTS

THE FDG STOCK SOLUTION IS PLACED IN THE DOSE CALIBRATOR USING A SPECIAL LID, WHICH IS SHIELDED WITH 20 MM LEAD. THE SYRINGE IS PUT INSIDE A 20 MM LEAD SHIELDED HOLDER AND CONNECTED TO THE STOCK SOLUTION VIA A STERILE TUBING. AS A RESULT, THE FDG DOSE DRAWN UP IN THE SYRINGE CAN BE READ FROM THE DOSE CALIBRATOR. DOSE RATE MEASUREMENTS WERE CARRIED OUT DURING THE FDG DOSE (250 MBQ) PREPARATION AND ADMINISTRATION TO THE PATIENT WITH AN ELECTRONIC DOSIMETER, WHILE THE HAND DOSES WAS MEASURED WITH RING TLDS. IN ADDITION, THE WHOLE BODY DOSE OF THE TECHNICIAN WAS DETERMINED USING A TLD.

RESULTS

DRAWING UP AND ADMINISTRATION OF A PATIENT DOSE OF FDG CAUSED A RADIATION DOSE OF 0.7 -2 μSv . THE 2-CM LEAD MANTLE OF THE SYRINGE REDUCED THE RADIATION DOSE TO 6% THEREOF. THE HAND DOSE PER DOSE PREPARATION AMOUNTED TO 5-10 μGy (1 MGY WHITHOUT ANY SHIELDING).



CONCLUSION

THE RADIATION DOSE TO THE TECHNICIAN DURING FDG DOSE PREPARATION AND ADMINISTRATION TO THE PATIENT CAN BE REDUCED SIGNIFICANTLY (FACTOR 50-100) WITH THIS EASY HANDLING SHIELDING DEVICE.

NOTES



VON GAHLEN NEDERLAND B.V.

POSTAL ADDRESS

P.O. BOX 86
6900 AB ZEVENAAR
THE NETHERLANDS

OFFICE ADDRESS

KELVINSTRAAT 9
6902 PW ZEVENAAR
THE NETHERLANDS

PHONE +31 316 528 275

FAX +31 316 333 649

E-MAIL INFO@VONGAHLEN.NL

INTERNET WWW.VONGAHLEN.COM

VON GAHLEN GMBH

POSTAL ADDRESS

POSTFACH 1320
D - 49703 MEPPEN
DEUTSCHLAND

OFFICE ADDRESS

SANDBREESTR. 20
D - 49716 MEPPEN
DEUTSCHLAND

PHONE +49 (0) 5931 8311

FAX +49 (0) 5931 13701

E-MAIL VGMHG@T-ONLINE.DE

INTERNET WWW.VONGAHLEN.COM

VON GAHLEN INTERNATIONAL, INC.

POSTAL ADDRESS

P.O. BOX 1550
CHATSWORTH, GEORGIA 30705
U.S.A.

OFFICE ADDRESS

505 SOUTH SECOND AVENUE
CHATSWORTH, GEORGIA 30705
U.S.A.

PHONE +1 706 517 5695

FAX +1 706 517 5696

E-MAIL VGI@VONGAHLEN.COM

INTERNET WWW.VONGAHLEN.COM