NRC FORM 567
(1-1999)

U.S. NUCLEAR REGULATORY COMMISSION

REQUEST FOR A SEALED SOURCE OR DEVICE EVALUATION

INSTRUCTIONS: Send this rerquest AND a copy of all related letters/applications and drawings to the Chief, Sealed Source Safety Section, OWFN Mail Stop O-6 H3. Change the License Tracking System milestone to 19 and assign to reviewer code 1-5.
NOTE: Retain a copy of this request with the application and background files.

REQUESTER **betacontrol of America**	REGION/LOCATION: ☐ I ☐ II ☐ III ☐ IV ☐ HQ ☐ LFARB
TELEPHONE NUMBER: **973-263-0477** / DATE:	TYPE OF ACTION REQUESTED *(Check as appropriate)*
NAME OF APPLICANT **Markus Hannig**	☐ SOURCE REVIEW ☐ DEVICE REVIEW ☐ CUSTOM REVIEW ☑ AMENDMENT OF REGISTRATION SHEET NUMBER(S)
MAIL CONTROL NUMBER(S):	
LETTER/APPLICATION DATE: **05/03/2004** / LICENSE NUMBER(S):	**NR-122-D-101-B**

COMMENTS:
P.O. Box 18
425 Route 202
Towaco, NJ 07082

FOR SSSS USE ONLY

REVIEWER	MODEL NUMBERS	NUMBER ASSIGNED
Nima Ashkeboussi	**MK 1.0**	**04-40**
DATE RECEIVED: **05/12/2004**	DATE ASSIGNED: **05/12/2004**	DATE TO FEES: **05/12/2004**

TYPE OF ACTION *(Indicate the number of each type)*

☑ COMMERCIAL DISTRIBUTION (FORMAL) ☐ USE BY A SINGLE APPLICANT (CUSTOM)

SOURCE (9C)	DEVICE (9A)	SOURCE (9D)	DEVICE (9B)
☐ NEW	☐ NEW	☐ NEW	☐ NEW
☐ AMENDMENT	☑ AMENDMENT	☐ AMENDMENT	☐ AMENDMENT

☑ NO SAFETY EVALUATION REQUIRED
NO FEES REQUIRED

☐ LICENSING ACTION REQUIRED (IF KNOWN) ☐ YES ☐ NO

☐ OTHER *(Specify)*

	TOTAL NUMBER OF REVIEW HOURS
	NUMBER OF DEFICIENCY LETTERS
	NUMBER OF DEFICIENCY CALLS

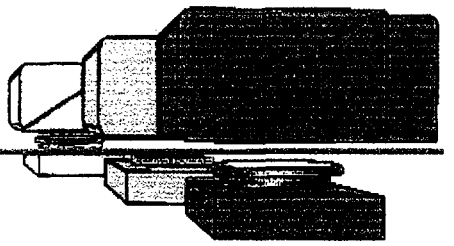
NOTES
New drawings for submittal and addition to registration certificate NR-122-D-101-B.

FOR FEE USE ONLY

TYPE OF FEE		FEE CATEGORY ☐ 9A ☐ 9B ☐ 9C ☐ 9D	
AMOUNT RECEIVED	CHECK NUMBER	DATE OF CHECK	LOG
APPROVED BY			DATE OF RETURN
COMMENTS			

betacontrol of America

PO Box 18 • 425 Route 202 • Towaco, NJ 07082 • Tel.: 973-263-0477 • Fax. 973-263-0477



May 3, 2004

NRC
ATTN.: John Jankovich
11555 Rockville
Rockville, MD 20852

Re: Amendment of registration certificate NR-122-D-101-B

Dear John,

Betacontrol improved the device MK 1.0. In appliance with NRC regulations we submit the new drawings for your records.

With the modifications we want to keep our product up to date with the needs of our customers and in maintaining exposures "as low as is reasonably achievable" ALARA.

Attached please find the new drawings.

I also ask you kindly to update your files in the matter of the distributor address:

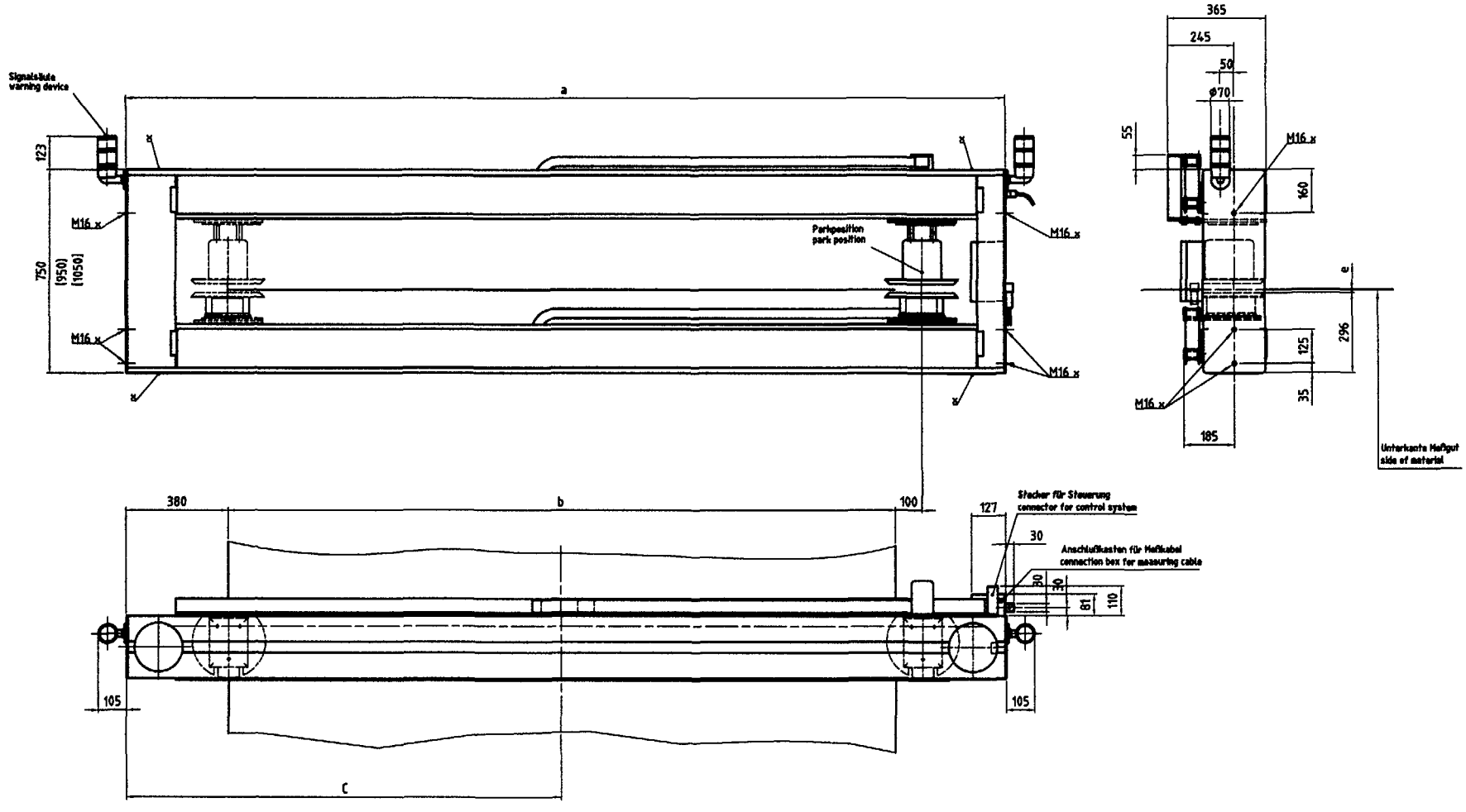
Betacontrol of America
P.O. Box 18
425 Route 202
Towaco, NJ 07082

The ownership has not changed. Betacontrol of America only relocated their office.

If you need any additional information, please feel free to call me.

Best regards,

Markus Hannig
Manager
Sales & Service



Traversengröße travelling taille		1	2	3	4	5	6
Gesamtbreite total width	a	1740	2250	2760	3270	3780	4290
× max. Meßgutbreite max. material width	b	950	1460	1970	2480	2990	3500
Mitte Meßgut middle material	c	855	1110	1365	1620	1875	2130
wird von betacontrol festgelegt determined by betacontrol	e						

× Befestigungs - Bohrungen
mounting holes
trous de montage

* Wartungsöffnung freihalten
Opening for service to be kept free

Allgemein-toleranzen DIN ISO 2768-f

Oberfläche

Maßstab 1:10

Position – Range –

Datum Name
Gezeichnet 03.04.2003 Saß
Geprüft 03.04.2003 Pioch
Norm

betacontrol

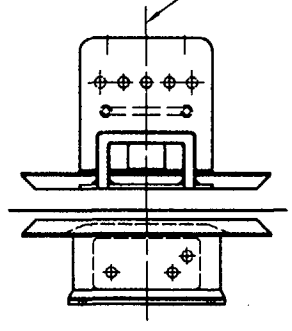
Zust. Änderungen Datum Name

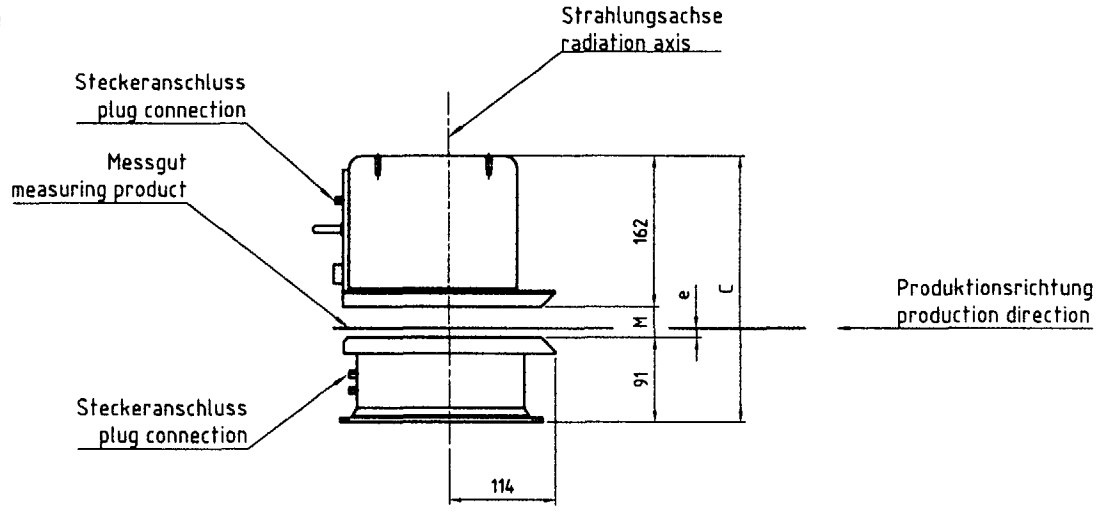
Maßbild für Traverse

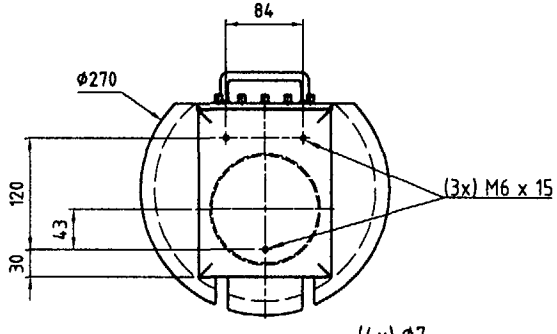
dimension drawing o-frame

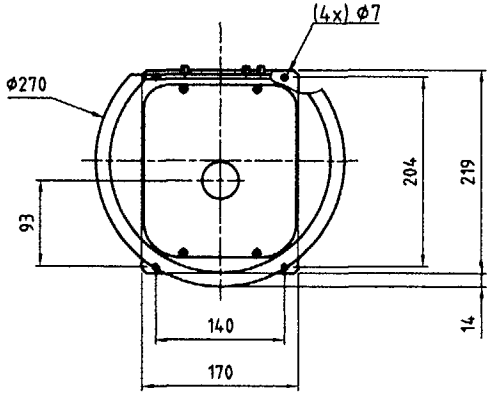
700-010-590/2

Blatt –









2	33	10	286		
1	10	6	263		
Variante variant	M Messspalt measuring gap	e	C		

Allgemein-toleranzen DIN ISO 2768-f	Oberfläche	Maßstab 1:5	Position - Menge -

	Datum	Name
Bearb.	04.07.2003	Saß.
Gepr.		
Norm		

betacontrol

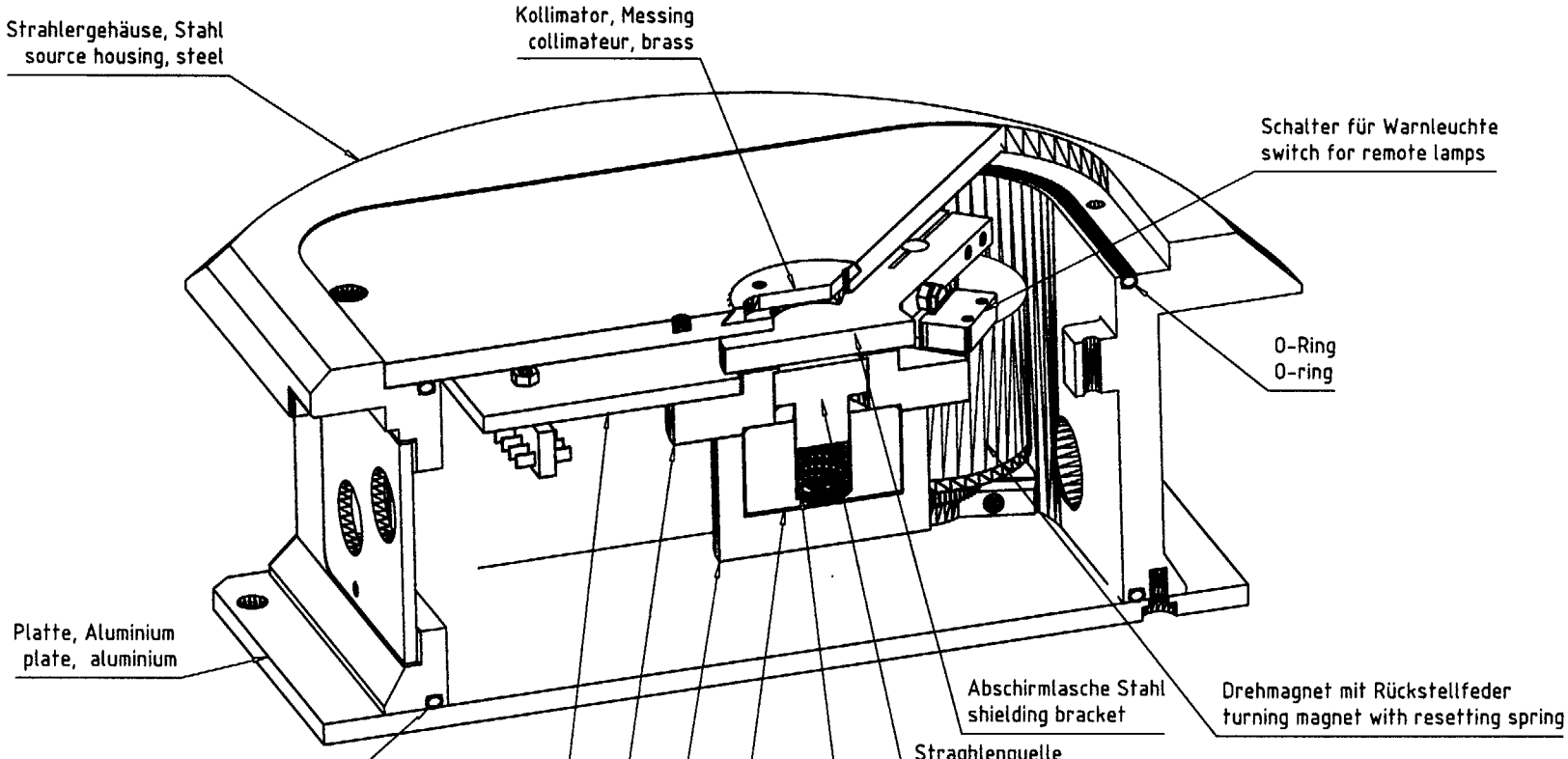
Sensor

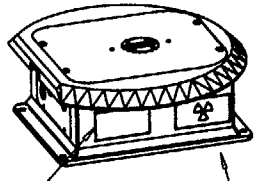
sensor

S01-103-001-3

Blatt -

Zust. Änderungen Datum Name Dateiname

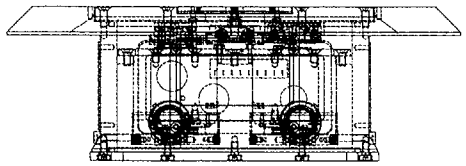


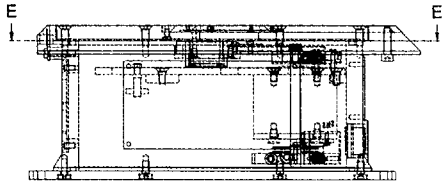


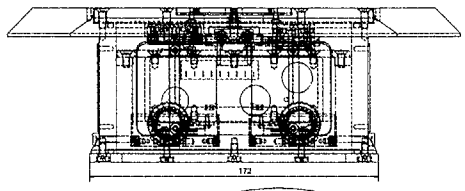
Typenschild
name plate

Warnschild radioaktiv. Auf vorder u. Rückseite angebracht.
warn lable radioactive. on front and back-side mounted

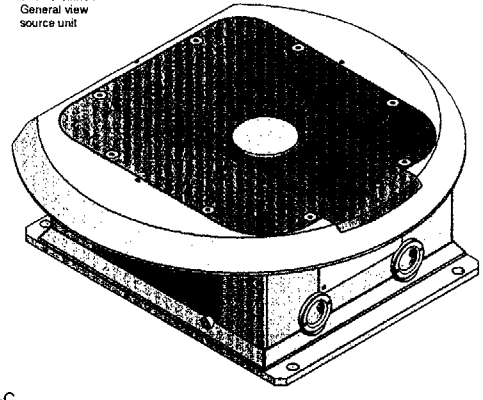
				Allgemein-toleranzen DIN ISO 2768-f		Oberfläche	Maßstab 1:1	Position –	Menge –
					Datum	Name			
				Bearb.	14.04.2003	Saß.	Strahler		
				Gepr.			3d		
				Norm					
				betacontrol			S04-041-030-3		Blatt –
Zust.	Änderungen	Datum	Name	Dateiname					Bl

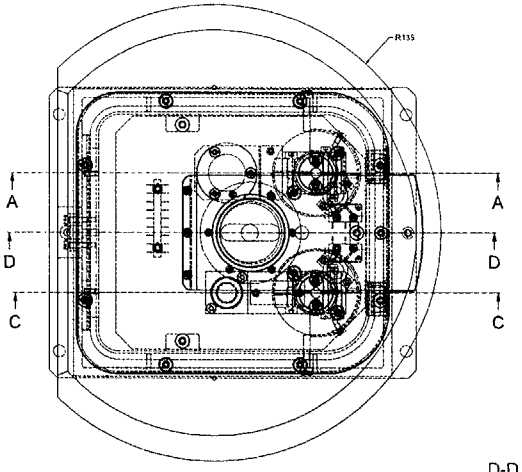






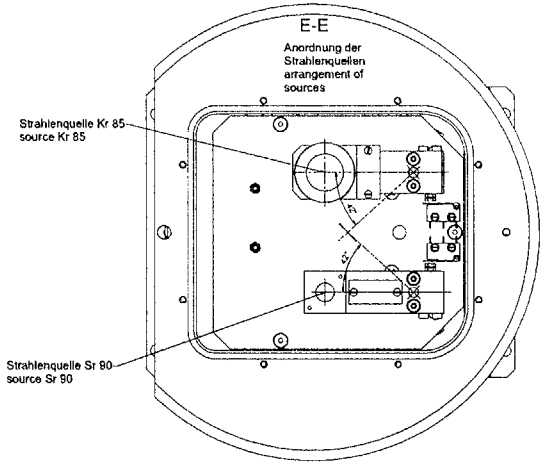
Gesamtansicht
Strahlereinheit
General view
source unit



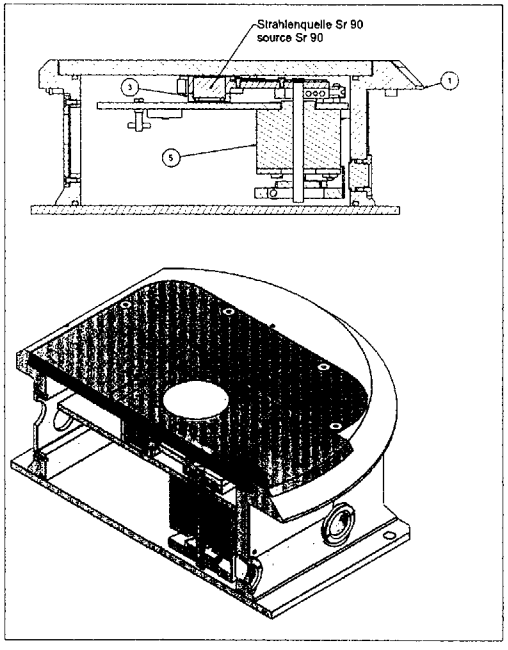


E-E

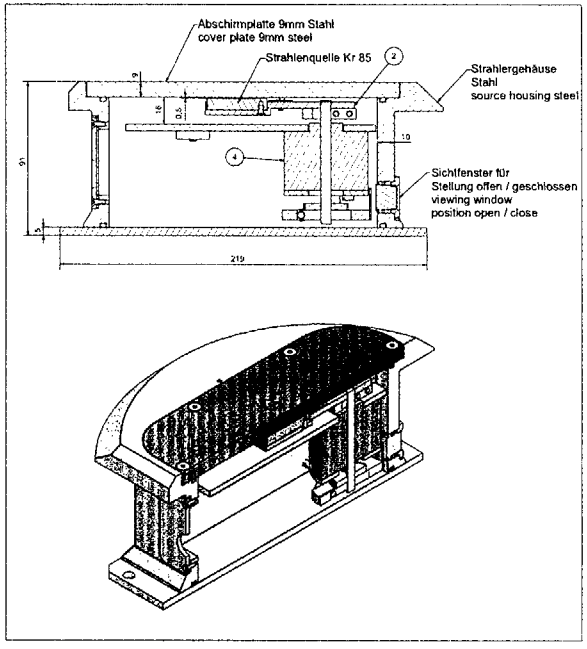
Anordnung der
Strahlenquellen
arrangement of
sources



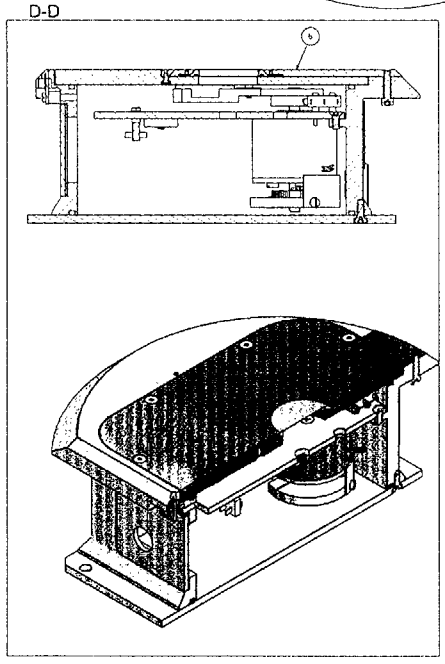
C-C



A-A



D-D



Stückliste

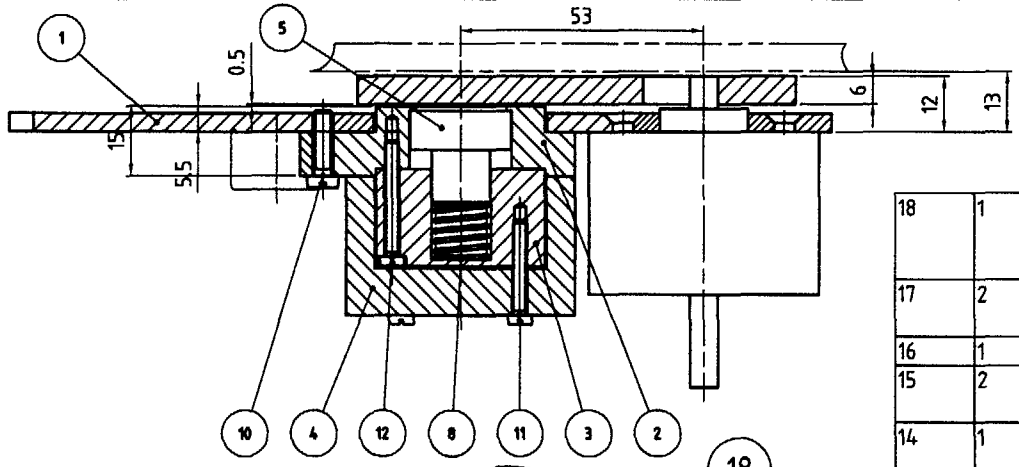
OBJEK	ANZA	BAUTEILNUMMER	BEZEICHNUNG	notation
6	1	S04-41009-3	Kollimator	collimator
5	1	S04-52011	Drehmagnet R	rotary magnet
4	1	S04-52012	Drehmagnet L	rotary magnet
3	1	S04-52014	Strahlerfassche Sr90	source Sr 90
2	1	S04-52013	Strahlerfassche Kr 85	source Kr 85
1	1	S04-41009	Strahlergehäuse 2 Bereich	source housing 2-range

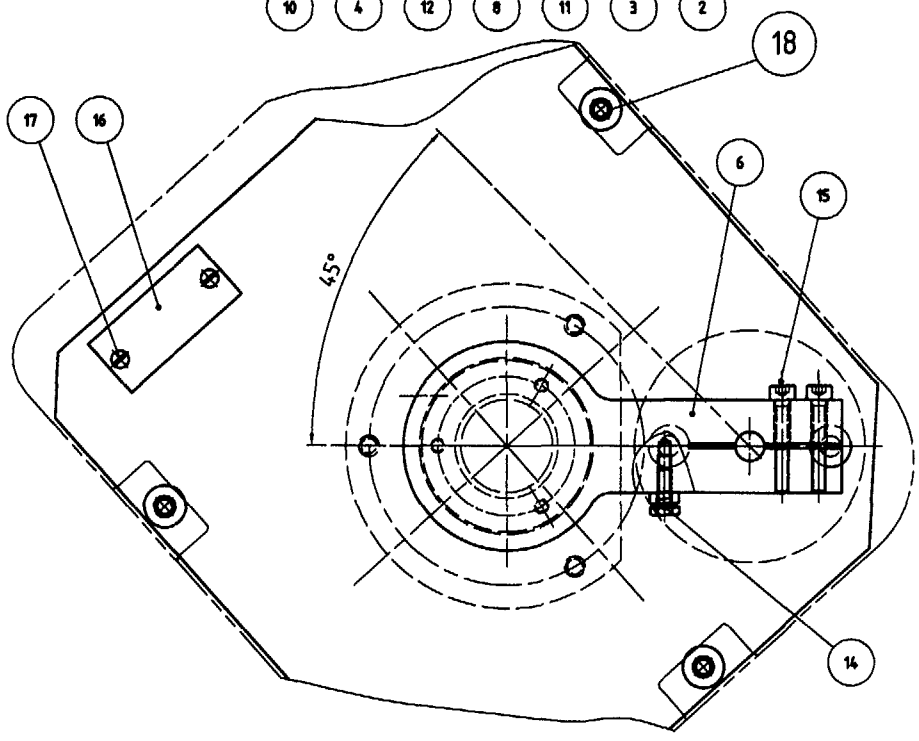
Strahler / emitter

2 Bereich / 2-range

S04-41012

1





Element	Anz.	Beschreibung	Standard	Material
18	1	Innensechskantschraube mit Senkkopf __ Allen countersunk screw	ISO 10642 - M4 x 12	A2
17	2	Zylinderschraube mit Schlitz __ Fillister head screw	DIN 912- M2 x 4	A2
16	1	Schild __ Name plate	700-052-025/4	A2
15	2	Zylinderschraube __ Allen head screw	DIN 912 - M3 x 20	A2
14	1	Sechskantschraube __ Hex head screw	DIN 933 - M3 x 8	A2
13	1	Sechskantmutter __ Hex head screw	DIN 934 - M3	A2
12	3	Zylinderschraube mit Schlitz __ Fillister head screw	ISO 1207 - M3 x 25	A2
11	3	Zylinderschraube mit Schlitz __ Fillister head screw	ISO 1207 - M3 x 20	A2
10	3	Zylinderschraube mit Schlitz __ Fillister head screw	ISO 1207 - M4 x 14	A2
8	1	Druckfeder __ Spring	VD-179K	1.4310
6	1	Abschirmlasche __ Shielding bracket	S04-052-014-4	S235JR
5	0	Strahlenquelle __ Radiation sousce	X.1114	
4	1	Bleiabschirmung __ Shielding bracket	S04-052-009-4	Pb
3	1	Deckel __ Cover	S04-052-008-4	S235JR
2	1	Präparathalter oben __ Compound holder	S04-052-005-4	S235JR
1	1	Grundplatte __ Base plate	S04-041-024-3	S235JR

Allgemeintoleranzen DIN ISO 2768-f

Oberfläche

Maßstab 1:1 | Position - | Menge -

	Datum	Name
Bearb.	11.02.2003	Saß.
Gepr.	11.02.03	Pioch
Norm		

Strahlerabschirmung Kr. 85

shielding Sr 90

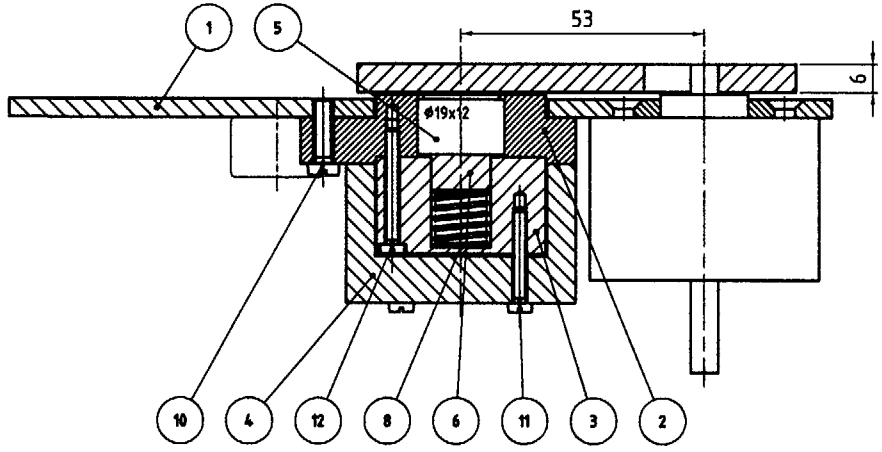
betacontrol

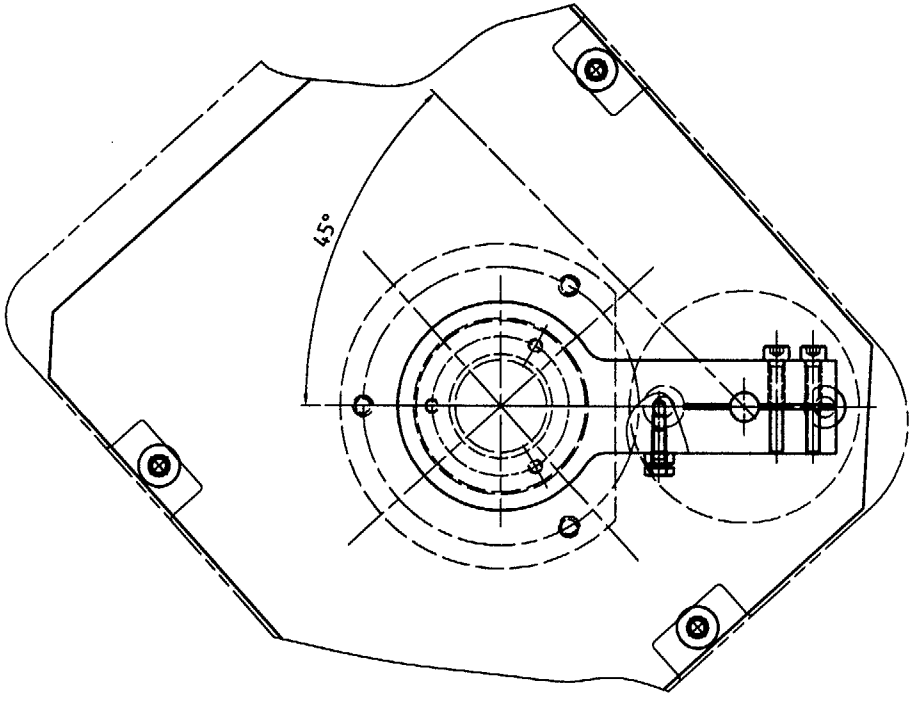
S04-52001-3

Blatt -

Bl

Zust. | Änderungen | Datum | Name | Dateiname





Element	Anz.	Beschreibung	Material	Standard
12	3	Zylinderschraube mit Schlitz	Fillister head screw	ISO 1207 - M3 x 25
11	3	Zylinderschraube mit Schlitz	Fillister head screw	ISO 1207 - M3 x 20
10	3	Zylinderschraube mit Schlitz	Fillister head screw	ISO 1207 - M4 x 14
8	1	Druckfeder	Spring	VD-179K
6	1	Druckstange	Spacer	S04-052-010/4
5	0	Strahlenquelle	Radiation source	X.117
4	1	Bleiabschirmung	Shield	S04-052-009-4
3	1	Deckel	Cover	S04-052-008-4
2	1	Präparathalter oben	Compound holder	S04-052-006-4
1	1	Grundplatte	Base plate	S04-041-024-3

Allgemeintoleranzen DIN ISO 2768-f

Oberfläche

Maßstab 1:1

Position – Menge –

	Datum	Name
Bearb.	11.02.2003	Saß.
Gepr.	18.02.03	Weber
Norm		

betacontrol

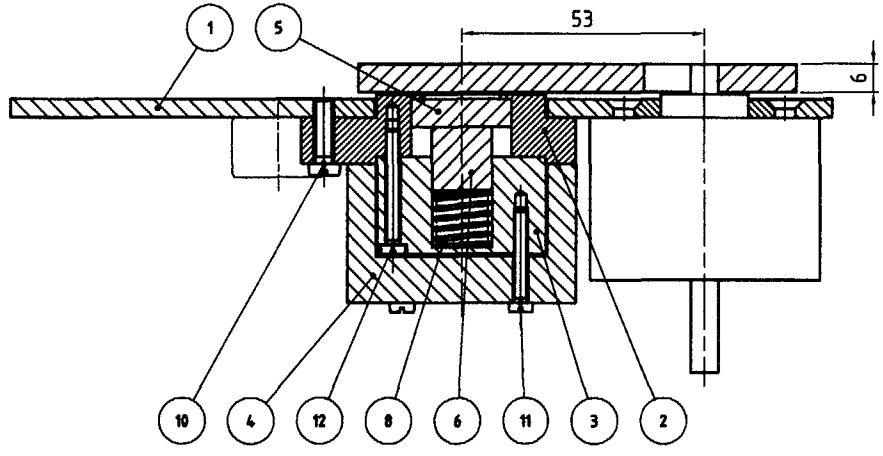
Strahlerabschirmung Sr 90

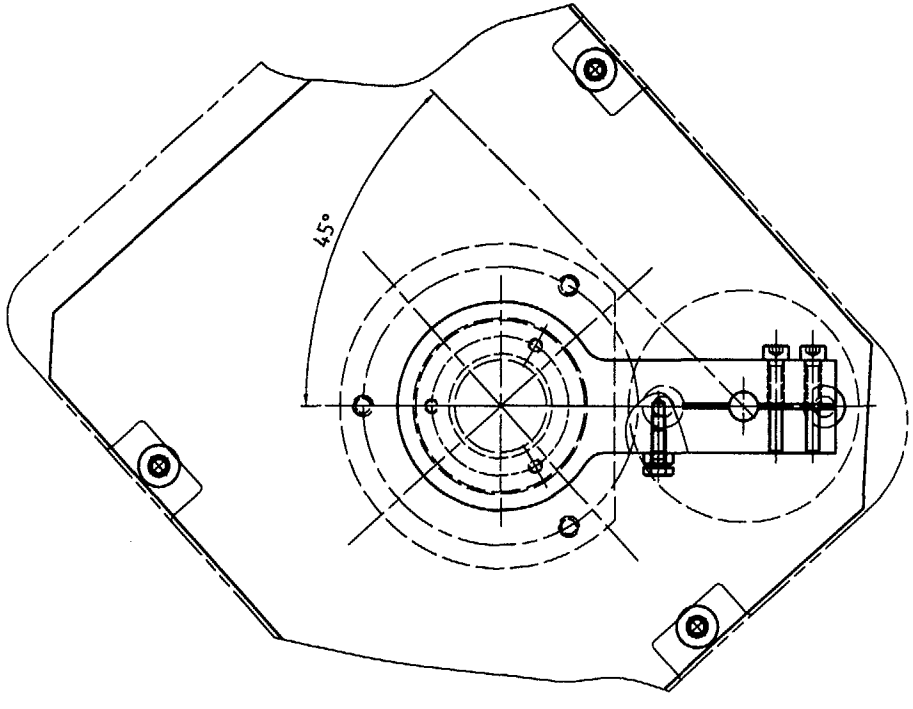
shielding Sr 90

S04-52005-3

Blatt –

Zust. Änderungen Datum Name Dateiname





Element	Anz.	Beschreibung	Material	Standard
12	3	Zylinderschraube mit Schlitz	Fillister head screw	ISO 1207 - M3 x 25
11	3	Zylinderschraube mit Schlitz	Fillister head screw	ISO 1207 - M3 x 20
10	3	Zylinderschraube mit Schlitz	Fillister head screw	ISO 1207 - M4 x 14
8	1	Druckfeder	Spring	VD-179K
6	1	Druckstange	Spacer	S04-052-010/4
5	0	Strahlenquelle	Radiation source	
4	1	Bleiabschirmung	Shield	S04-052-009-4
3	1	Deckel	Cover	S04-052-008-4
2	1	Präparathalter oben	Compound holder	S04-052-006-4
1	1	Grundplatte	Base plate	S04-041-024-3

Allgemeintoleranzen DIN ISO 2768-f

Oberfläche

Maßstab 1:1 | Position - | Menge -

	Datum	Name
Bearb.	11.02.2003	Saß.
Gepr.	18.02.03	Weber
Norm		

Strahlerabschirmung Am 241 / Pr 147

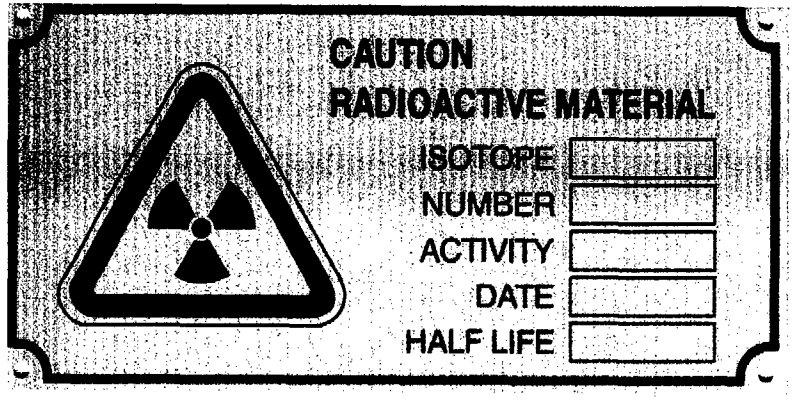
shielding Am 241 / Pm 147

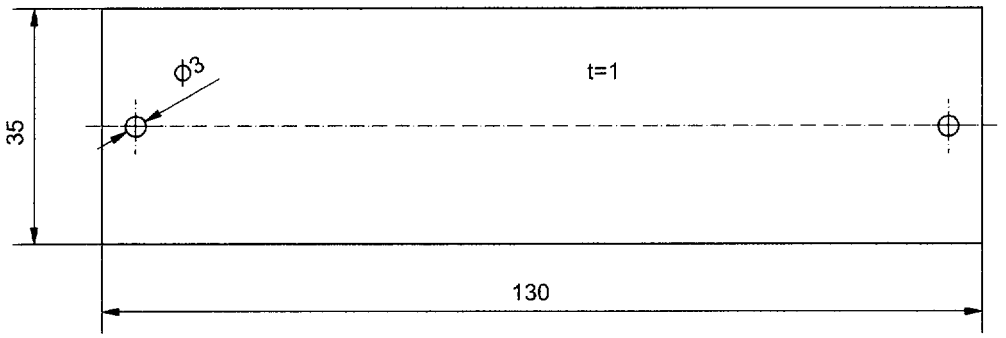
betacontrol

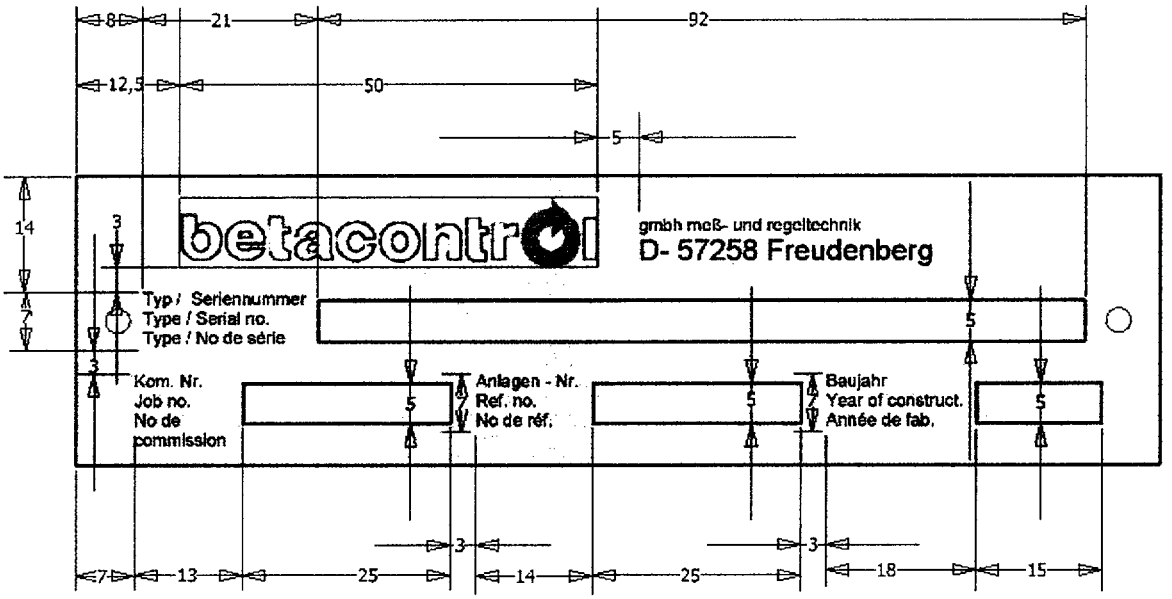
S04-52007-3

Blatt -

Zust. | Änderungen | Datum | Name | Dateiname


CAUTION
RADIOACTIVE MATERIAL
ISOTOPE
NUMBER
ACTIVITY
DATE
HALF LIFE





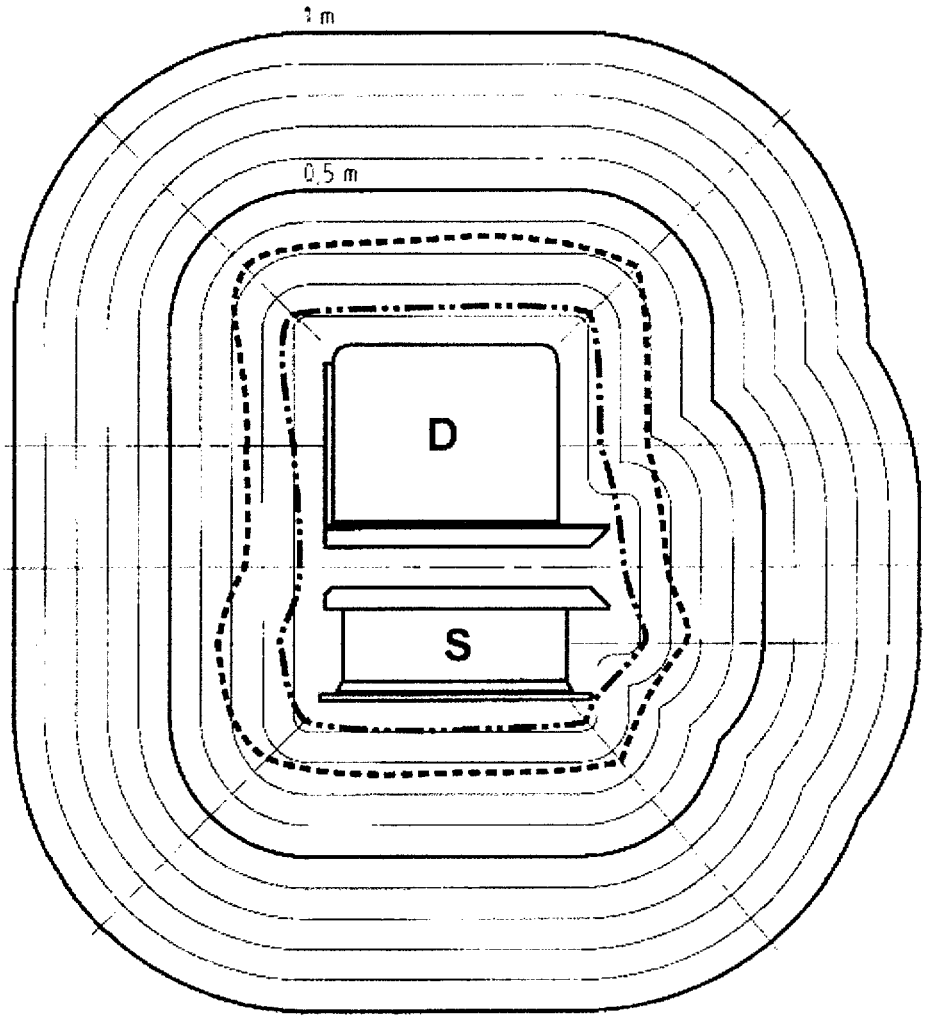
A

				Allgemein-toleranzen DIN ISO 2768-f			AlMg3
					Datum	Name	Typenschild Messkopf
				Gezeichnet	31.03.2004	Saß	
				Kontrolliert			
				Norm			
							S04-041-052
Status	Änderungen	Datum	Name				1 / A4

Isodosiskurven / isodose curves nach DIN 412-1

Strahler ***abgeschirmt*** **/ source** ***shielded***

Seitliche Ansicht
side view



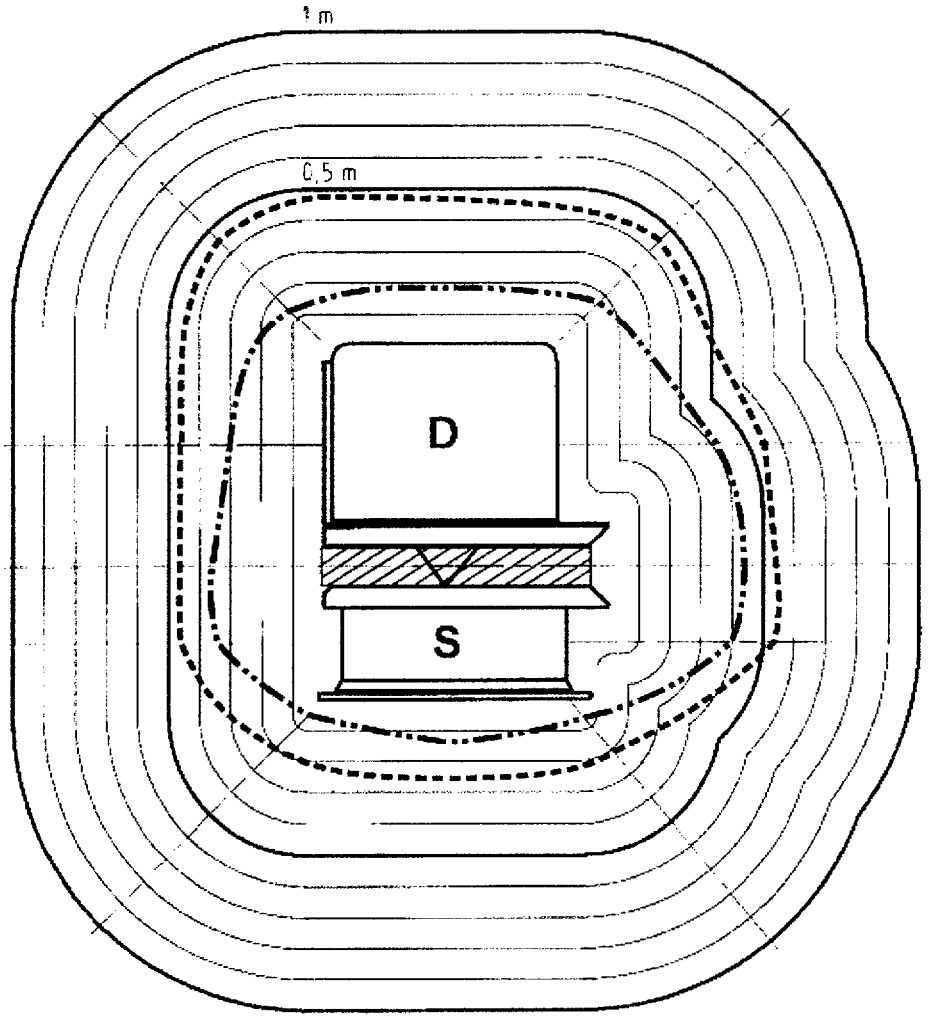
7,5 µSv/h
2,5 µSvs/h

Isotop: Kr85 isotope	**Messspalt: 10 mm** meas. gap	**Strahlertyp: X1114** type
Aktivität: 3,7 GBq activity	**Kollimator: Schlitz 10 x 35 mm** slotted collimator	**Kr85-3,7-10-01** **Bl. 2**
Messgerät: babyline		

Isodosiskurven / isodose curves nach DIN 412-1

Strahler im *Messbetrieb* / source *unshielded*

Seitliche Ansicht
side view



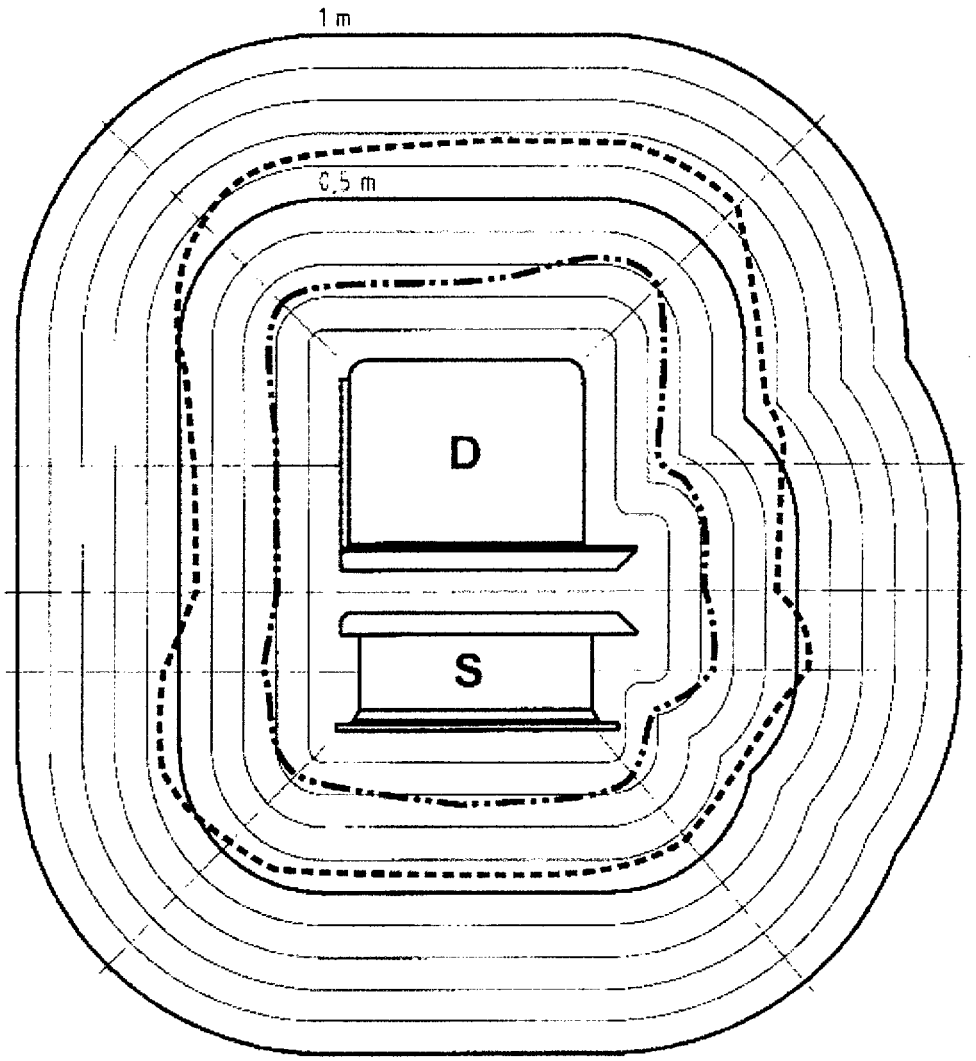
7,5 µSv/h
2,5 µSvs/h

Isotop: Kr85 isotope	**Messspalt: 10 mm** meas. gap	**Strahlertyp: X1114** type
Aktivität: 3,7 GBq activity	**Kollimator: Schlitz 10 x 35 mm** slotted collimator	**Kr85-3,7-10-01** **Bl. 1**
Messgerät: babyline		

Isodosiskurven / isodose curves nach DIN 412-1

Strahler ***abgeschirmt*** **/ source** ***shielded***

seitliche Ansicht
side view



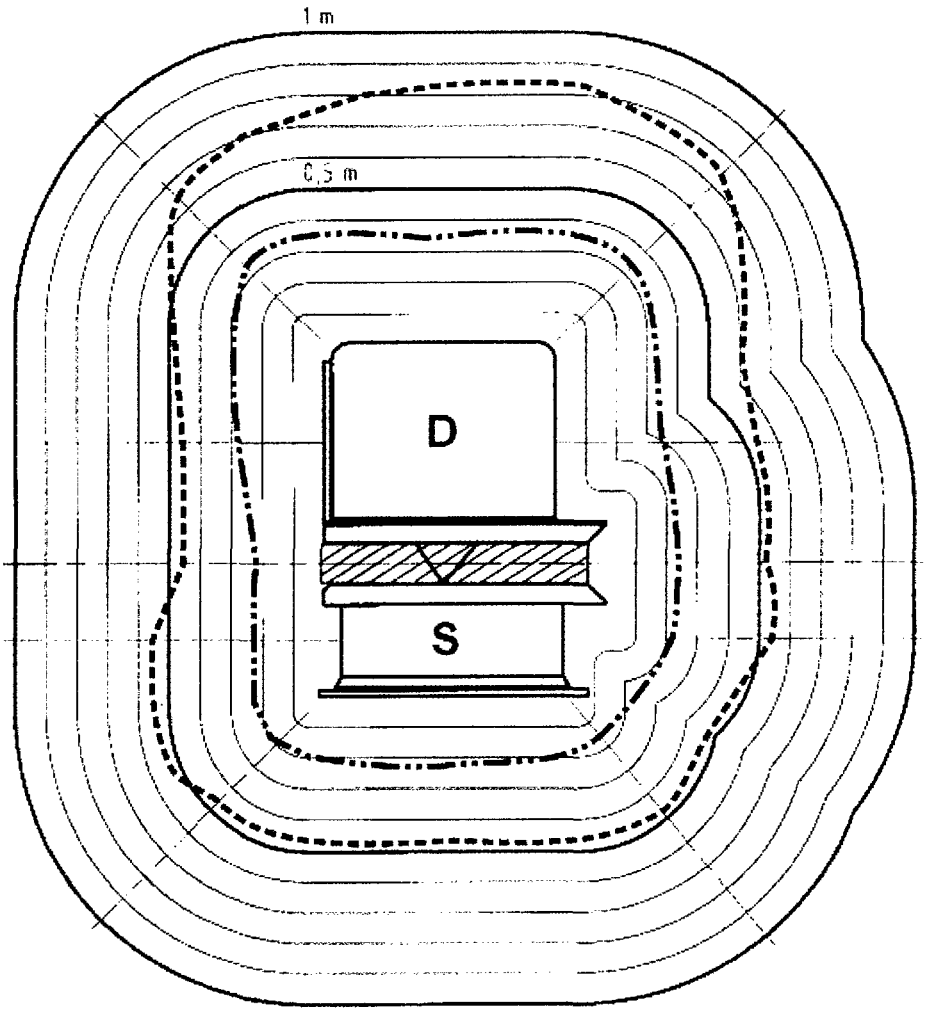
7,5 µSv/h
2,5 µSvs/h

Isotop: Kr85 isotope	**Messspalt: 10 mm** meas. gap	**Strahlertyp: X1114** type
Aktivität: 9,9 GBq activity	**Kollimator: Schlitz 10 x 35 mm** slotted collimator	**Kr85-9,9-10-01** **Bl. 2**
Meßgerät: babyline		

Isodosiskurven / isodose curves nach DIN 412-1

Strahler im *Messbetrieb* / source *unshielded*

seitliche Ansicht
side view



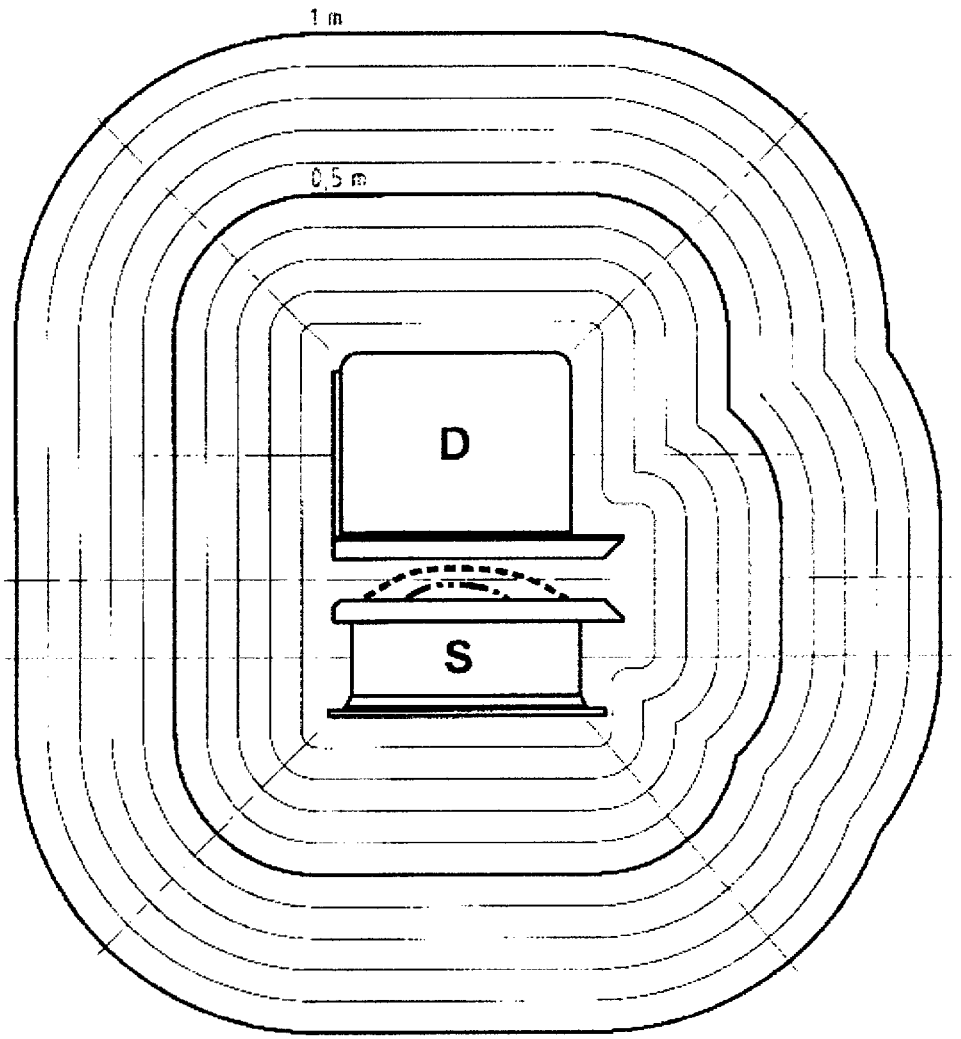
—·—·— 7,5 µSv/h
– – – – – 2,5 µSvs/h

Isotop: Kr85 isotope	**Messspalt: 10 mm** meas. gap	**Strahlertyp: X1114** type
Aktivität: 9,9 GBq activity	**Kollimator: Schlitz 10 x 35 mm** slotted collimator	**Kr85-9,9-10-01** **Bl. 1**
Meßgerät: babyline		

Isodosiskurven / isodose curves nach DIN 412-1

Strahler ***abgeschirmt*** **/ source** ***shielded***

Seitliche Ansicht
side view



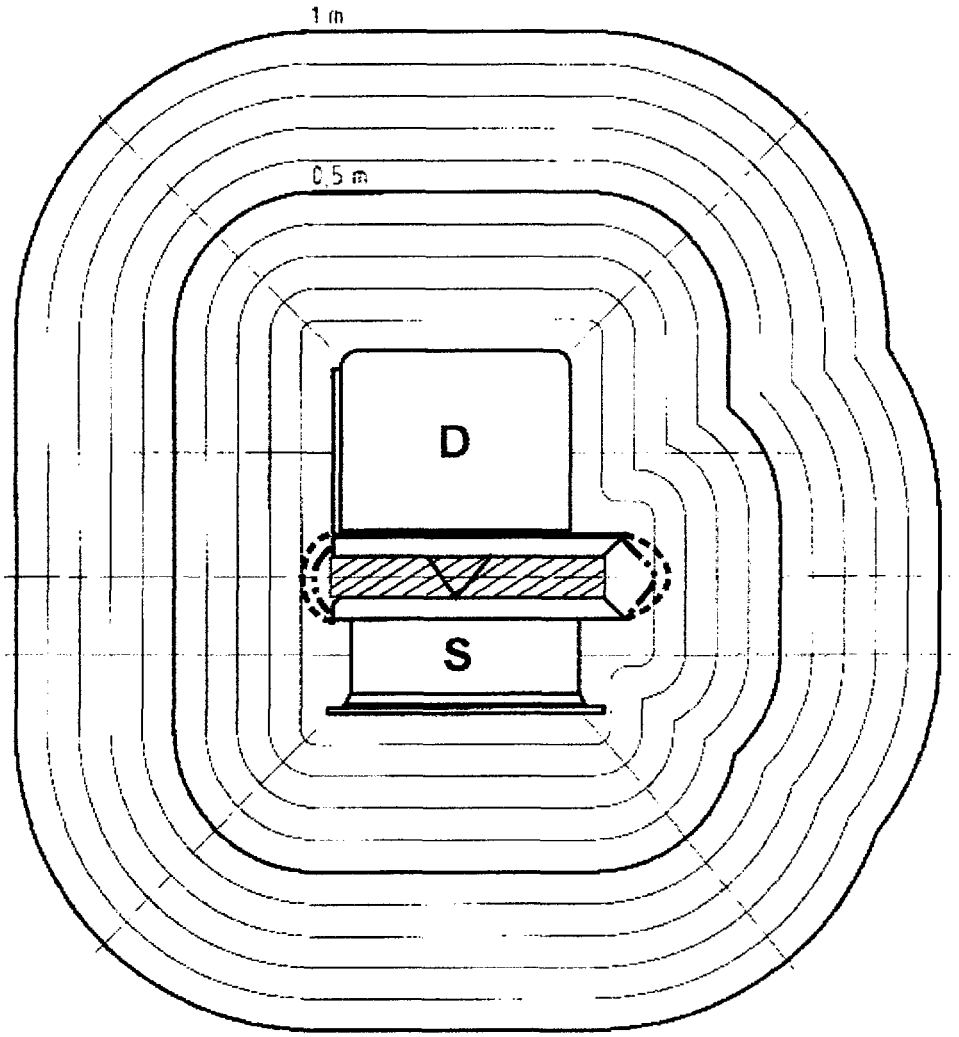
7,5 µSv/h
2,5 µSvs/h

Isotop: Pm147 isotope	**Messspalt: 10 mm** meas. gap	**Strahlertyp: VZ-464** type
Aktivität: 18,5 GBq activity	**Kollimator: Rund** slotted collimator	**Pm147-18.5-10-01** **Bl. 2**
Messgerät: babyline		

Isodosiskurven / isodose curves nach DIN 412-1

Strahler im *Messbetrieb* / source *unshielded*

Seitliche Ansicht
side view



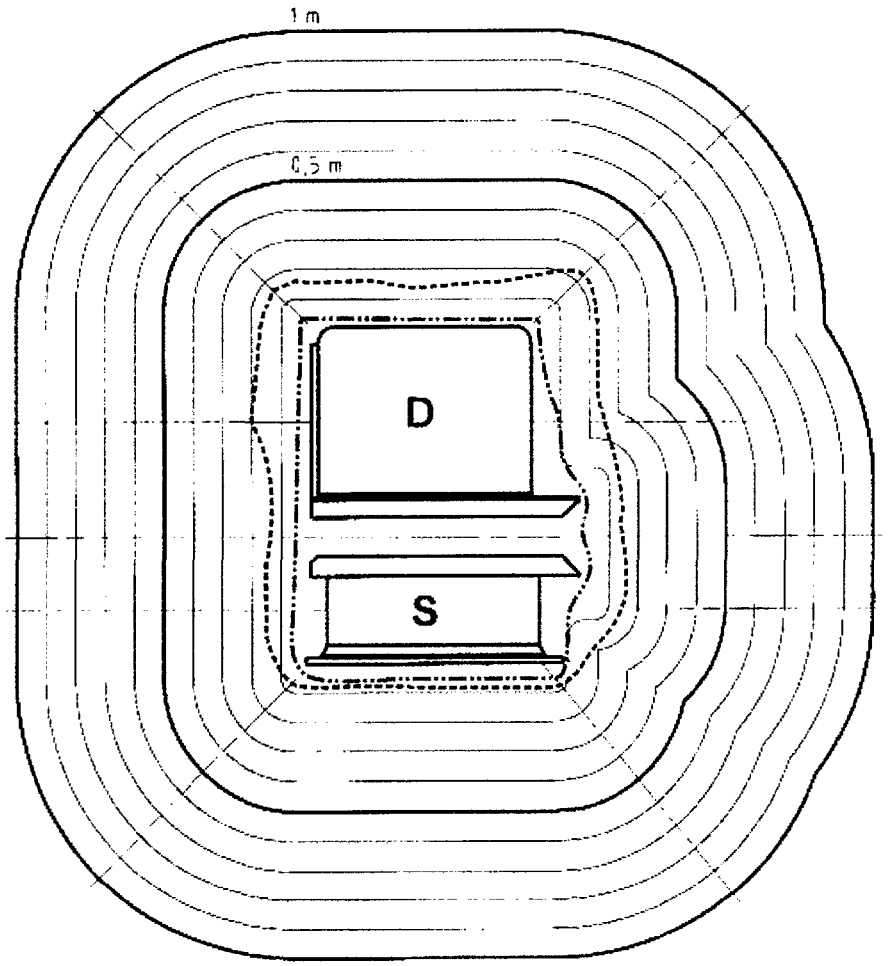
7,5 µSv/h
2,5 µSvs/h

Isotop: Pm147 isotope	**Messspalt: 10 mm** meas. gap	**Strahlertyp: VZ-464** type
Aktivität: 18,5 GBq activity	**Kollimator: Rund** slotted collimator	**Pm147-18.5-10-01** **Bl. 1**
Messgerät: babyline		

Isodosiskurven nach DIN 412-1 / isodose curves

Strahler ***abgeschirmt*** **/ source** ***shielded***

seitliche Ansicht
side view



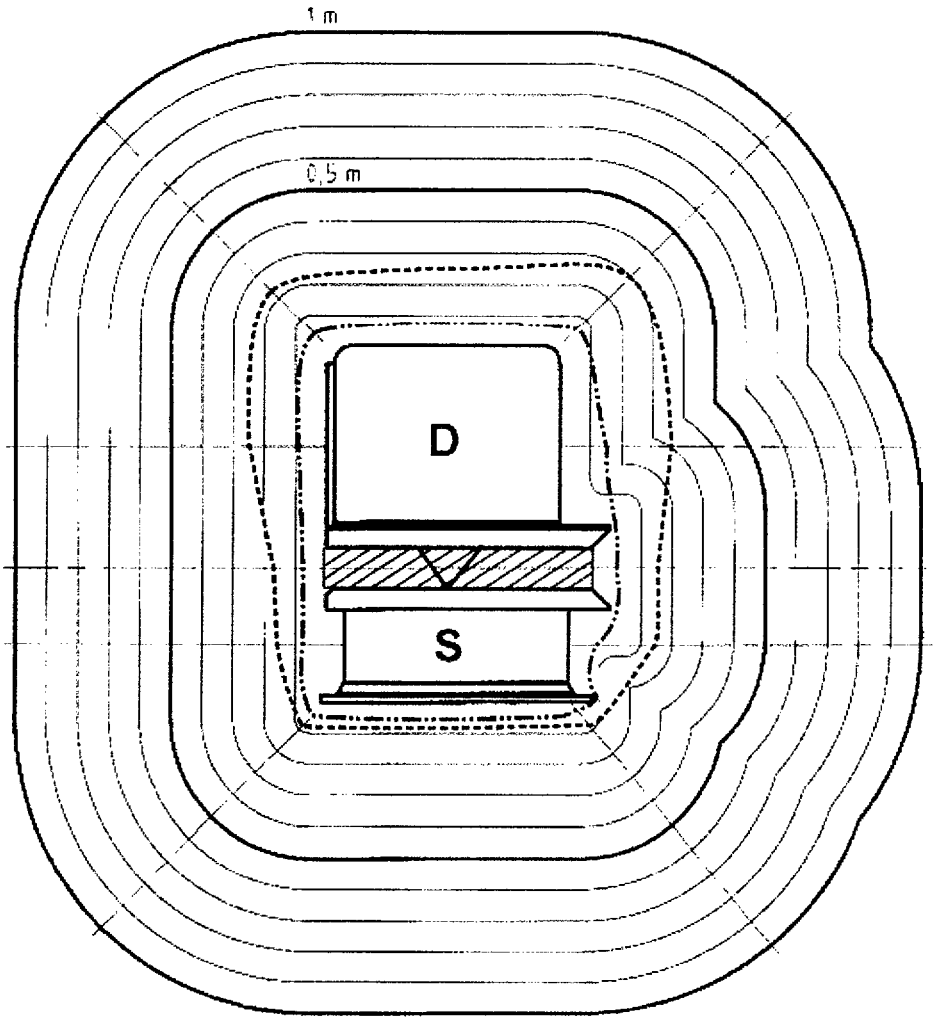
7,5 µSv/h
2,5 µSvs/h

Isotop: Sr90 isotope	**Messspalt: 35 mm** meas. gap	**Strahlertyp: X117** type
Aktivität: 0,37 GBq activity	**Kollimator: Schlitz 10 x 35 mm** slotted collimator	**Sr.90-0,37-35-01** **Bl. 2**
Meßgerät: babyline		

Isodosiskurven nach DIN 412-1 / isodose curves

Strahler im *Messbetrieb* / source *unshielded*

seitliche Ansicht
side view



— · · — · 7,5 µSv/h
---------- 2,5 µSvs/h

Isotop: Sr.90 isotope	**Messspalt: 35 mm** meas. gap	**Strahlertyp: X117** type
Aktivität: 0,37 GBq activity	**Kollimator: Schlitz 10 x 35 mm** slotted collimator	**Sr.90-0,37-35-01** **Bl. 1**
Meßgerät: babyline		