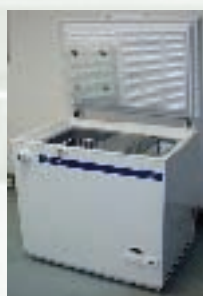


The Blood Cold Chain



Guide to the
selection and procurement
of equipment and
accessories



Department of Blood Safety and Clinical Technology
World Health Organization
Geneva

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Important note to readers . . .

A major objective of the WHO Department of Blood Safety and Clinical Technology (BCT) is to assist every Member State to ensure a safe and adequate blood supply that meets national needs at reasonable cost. Many countries face challenges in reaching this goal. These include limited resources and information, a lack of national policy and plans, transfusion transmissible infections such as the human immunodeficiency virus (HIV), and appropriate technology. Access to, and use of appropriate technology are essential for the safe storage and transportation of blood from donation to transfusion, a process referred to as the blood cold chain. The WHO Blood Cold Chain Project is meeting this challenge by providing appropriate technical and logistics information that will empower managers of health care programmes to improve management of the blood cold chain. This publication

provides specific guidance in the selection and procurement of blood cold chain equipment and accessories.

As mentioned in the copyright notice, **WHO does not endorse or recommend manufacturers or their products listed in this publication over those not mentioned.** The products featured are those that (i) were submitted by manufacturers that wished to participate in a WHO project to develop minimum performance specifications for all essential equipment and accessories needed for an effective blood cold chain; and that (ii) met the WHO minimum performance specifications after laboratory testing and field evaluation.

The WHO Office of Procurement Services (procurement@who.int) can be consulted to provide up-to-date information on the procurement of medical equipment and supplies.

Products featured in this guide*

Equipment and Model	Code ¹	Manufacturer	Page	
Blood Refrigerators				
Standard Electric:	BR320+	BR/01/2a	Dometic, Luxembourg	11
	BB510+	BR/02/2a	Huurre of Finland	12
	BB710+	BR/03/2a	Huurre of Finland	13
	BBR 25SI-2A	BR/04/4a	Jewett Refrigeration, USA	13
	CT1-2A	BR/05/2a	Jewett Refrigeration, USA	14
Solar Powered	VC65F	BR/06/1b	Dulas Ltd., UK	16
	MB50DC+	BR/07/1b	Dometic, Luxembourg	17
Ice-lined	MB50AC+	BR/08/1c	Dometic, Luxembourg	18
	MRB 2000+	BR/09/1c	Dometic, Luxembourg	19
Plasma Freezers				
FR160+	PF/01/3	Dometic, Luxembourg	21	
CTF406-2A	PF/02/2	Jewett Refrigeration, USA	22	
Platelet Agitators				
PFS42 Agitator in	PA/01/i	Helmer, USA	24	
PC900 Incubator		Helmer, USA	24	
Flatbed Platelet Agitators				
PFS15	PA/02/f	Helmer, USA	25	
PFS42	PA/03/f	Helmer, USA	25	
PFS84	PA/04/f	Helmer, USA	25	
PFS396	PA/05/f	Helmer, USA	25	
Plasma Thawers				
CytothermDR	PT/01/	Phototherm, USA	27	
CytothermD4+	PT/02/	Phototherm, USA	27	
Cytotherm4T+	PT/03/	Phototherm, USA	28	
DH8	PT/04/	Helmer, USA	29	
Blood Transport Boxes				
MT25E/CF (blue)	BB/01/4 (PIS B4/05M)	Dometic, Luxembourg	31	
3504/38/CF	BB/02/1 (PIS B4/18M)	Thermos, USA	32	
55-CF	BB/03/2 (PIS B4/57M)	Blow Kings, India	32	
MT12E/CF	BB/04/3 (PIS B4/62M)	Dometic, Luxembourg	33	
ICBB-13F	BB/05/3 (PIS B4/72M)	Apex Continental Ltd, India	33	
CB/20/-CF	BB/06/3 (PIS B4/76M)	Blow Kings, India	34	
Temperature Monitoring Devices				
T615 Recording thermometer	TD/01 (PIS E6/09)	Pacific Transducer Co., USA	37	
AR10-GT-S Recording thermometer	TD/02 (PIS E6/28)	Hyoda Instruments Co., Japan	37	
Tiny TTM Type G IP68 data logger	TD/03 (PIS E6/43)	Remonsys Ltd., UK	38	
Tiny TTM Type G data logger	TD/04 (PIS E6/44)	Remonsys Ltd., UK	38	
Autolog 2000TM data logger	TD/05 (PIS E6/47)	Remonsys Ltd., UK	39	
Thermo-tracer, data logger	TD/06 (PIS E6/48)	Ocea Soft, France	39	
80-1017 3M BTTI	TD/07	3M/Berlinger & Co. AG, CH	40	
Accessories				
FF500/4R voltage regulator for refrigerators	VR/01	Advance Galatrek, UK	44	

* Equipment laboratory tested and evaluated in the field (*indicates that field test results are still awaited). WHO-PIS codes included for ease of reference, where applicable.

¹ Codes are: (i) product description; (ii) product number; (iii) product capacity, if relevant; (iv) product type, if relevant. Therefore, for example, BR/06/1b means: Blood Refrigerator, WHO/BCT Product No. 06, with a capacity to hold fewer than 50 blood packs, solar powered type product (see Annex 3 for full description).

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