APPENDIX E—DECONTAMINATION EQUIPMENT DATA SHEETS

DECONTAMINATION EQUIPMENT

General

Equipment Name

Skin Decontaminant Lotion

ID# 1

Decontamination Process

Chemical (neutralizes contaminant)

Applications

Personnel	Equipment	Infrastructure
Yes	Yes	No

Application Notes

The Skin Decontaminant Lotion is used to decontaminate, on contact, skin and personal equipment. The lotion, manufactured in Canada by Anachemia, is currently in production. It employs chemical (oxidation) technology and is effective against chemical agents, such as mustard (H), nerve agents, and Lewisite (L). The lotion is supplied in a sealed barrier material pouch, under a layer of inert gas. Each pouch contains a towelette impregnated with 45 mL of lotion. The pouches are supplied in sets of four and can be opened while wearing gloves. Towelettes are wiped over the contaminated area and then wiped off using another towelette. The lotion should only be used on the skin and should not come in contact with the eyes.

Availability

Commercially available

Current User

Not specified

Manufacturer

Anachemia Canada Inc.
P.O. Box 147
Lachine (Quebec), Canada H8S 4A7
514–489–5711 (Tel)
514–363–5281 (Fax)

Source

Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated

G agents, VX, HD, L

BW Agents Decontaminated

Not specified

High Hazard TIMs Decontaminated

Not specified

Medium Hazard TIMs Decontaminated	Not specified
Low Hazard TIMs Decontaminated	Not specified
Decontaminant Solutions	Not specified
Capacity/Throughput	Not specified
Set-up Time	Not specified

Physical Parameters

Size	6 L 6 W x 1.92 H (in)
Weight	Not specified
Power Requirements	None

Logistical Parameters

Consumables Required	Decontaminant packets
Maintenance Repairs Required	None
Shelf Life	Not specified
Transportability	Man-Portable Decontamination Unit
Durability	Not specified
Environmental Conditions	14 °F to 122 °F (operating temperature)
Environmental Considerations	Not specified
Resources	One person
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	Not specified

Special Requirements

Operator Skills Required	Minimal
Operator Training Required	Minimal
Training Available	Not specified
Manuals Available	Not specified
Support Equipment	None
Testing Information	Information not available
Applicable Regulations	Not specified

General

Equipment Name *K1-05 Standard Unit*

ID# 2

Decontamination Process Physical (removes contaminant)

Applications

Personnel	Equipment	Infrastructure
Yes	Yes	No

Application Notes The K1-05, manufactured commercially in the U.S. by Applied Surface Technologies, is designed to clean sensitive equipment. The K1-05 employs mechanical technology (high-pressure carbon dioxide), which uses carbon dioxide to remove micron and sub-micron particles from surfaces at high efficiencies and also removes hydrocarbon-based contamination. The CO2 snow cleaning is nondestructive and nonabrasive. The K1-05 unit addresses both the general and critical cleaning problems. The unit comes with either a 5 ft or 10 ft flexible stainless steel PTFE lined hose, a CGA320 cylindrical fitting, an on/off gun, an optional 0.5 µ stainless steel filter, a 0 psi to 2000 psi pressure gauge, and two nozzles. One nozzle is an FEP polymer, the other nozzle is stainless steel, and both have 16 mm diameter orifices. A brass nozzle can also be substituted for the stainless steel nozzle. A 24 V dc or a 120 V ac solenoid control valve can be supplied in place of the on/off gun. The standard units can also be equipped with the narrow 1/16 in outer diameter by using either a 0.010, 0.020, or 0.030 thousandth of an inch inner diameter tube.

Availability Commercially available

Current User Not specified

Manufacturer

Applied Surface Technologies
15 Hawthorne Drive
New Providence, NJ 07974
908–464–6675 (Tel)
908–464–7475 (Fax)

Source Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated Not specified

BW Agents Decontaminated Not specified

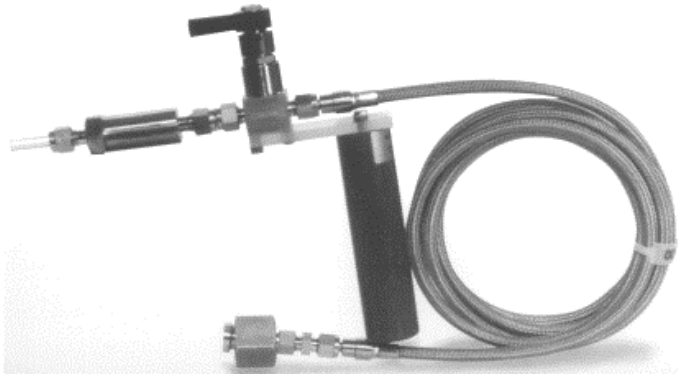
-High Hazard TIMs Decontaminated	Not specified
Medium Hazard TIMs Decontaminated	Not specified
Low Hazard TIMs Decontaminated	Not specified
Decontaminant Solutions	Carbon dioxide
Capacity/Throughput	Not specified
Set-up Time	Not specified
Physical Parameters	Not specified
Size	Not specified
Weight	Not specified
Power Requirements	24 V dc or 120 V ac
Logistical Parameters	Not specified
Consumables Required	Decontaminant, filter
Maintenance Repairs Required	Not specified
Shelf Life	Not specified
Transportability	Man-Portable Decontamination Unit
Durability	Not specified
Environmental Conditions	Not specified
Environmental Considerations	The decontamination process leaves no residue on the surface of the item nor does it produce any chemical waste.
Resources	Not specified
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	Not specified
Special Requirements	Not specified
Operator Skills Requirements	Not specified
Operator Training Requirements	Not specified
Training Available	Not specified
Manuals Available	Not specified
Support Equipment	Not specified
Testing Information	Information not available
Applicable Regulations	Not specified

General

Equipment Name

K4-05 High Purity

ID# 3



Decontamination Process

Physical (removes contaminant)

Applications

Personnel	Equipment	Infrastructure
No	Yes	No

Application Notes

The K4-05 high purity unit is also designed to clean sensitive equipment. This system employs mechanical technology (high-pressure carbon dioxide), which uses carbon dioxide to remove micron and sub-micron particles from surfaces at high efficiencies and also removes hydrocarbon-based contamination. The carbon dioxide snow cleaning is nondestructive and nonabrasive. The process leaves no residue on the surface of the item nor does it produce any chemical waste. The K4-05 unit addresses both the general and critical cleaning problems. These units come with either a 5 ft or 10 ft flexible stainless steel PTFE lined hose, a CGA320 cylindrical fitting, two nozzles, and a 0.01 µ filter. All fittings for this unit are compression fittings as opposed to NPT fittings. An electro-polished 24 V dc or 120 V ac solenoid valve (with compression fittings) can be substituted for the 90° on/off valve.

Availability

Commercially available

Current User

Not specified

Manufacturer

Applied Surface Technologies
15 Hawthorne Drive
New Providence, NJ 07974
908–464–6675 (Tel)
908–464–7475 (Fax)

Source

Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated

Not specified

BW Agents Decontaminated

Not specified

High Hazard TIMs Decontaminated

Not specified

Medium Hazard TIMs Decontaminated	Not specified
Low Hazard TIMs Decontaminated	Not specified
Decontaminant Solutions	Cleaning solution
Capacity/Throughput	Not specified
Set-up Time	Not specified

Physical Parameters

Size	Not specified
Weight	Not specified
Power Requirements	None

Logistical Parameters

Consumables Required	Decontaminant
Maintenance Repairs Required	Not specified
Shelf Life	Not specified
Transportability	Man-Portable Decontamination Unit
Durability	Not specified
Environmental Conditions	Not specified
Environmental Considerations	The decontamination process leaves no residue on the surface of the item nor does it produce any chemical waste.
Resources	One person
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	Not specified

Special Requirements

Operator Skills Required	Minimal
Operator Training Required	Minimal
Training Available	Not specified
Manuals Available	Not specified
Support Equipment	None
Testing Information	Information not available
Applicable Regulations	Not specified

General

Equipment Name ***Snow Motion***

ID# 4

Decontamination Process Physical (removes contaminant)

Applications

Personnel	Equipment	Infrastructure
No	Yes	No

Application Notes

The Snow Motion is a fully automated carbon dioxide snow cleaning workstation used to clean sensitive and interior equipment. It is commercially available in the U.S. Snow Motion is used to clean laser filters, visible lenses, mirrors, wire bond pads, ceramics, metals, and wafers. Contamination is lifted off the surface and partially absorbed into the carbon dioxide stream. The Snow Motion, if used for decontamination, would only remove the contamination. An additional procedure would be necessary to neutralize the agent. The station features four axis motion (x, y, z rotary) with a user friendly programming interface. Cleaning procedures can be saved as programs, which can be saved, recalled, and later edited with a keyboard and display interface located on front panel. The nozzle is made of stainless steel, which produces a near sonic stream of carbon dioxide with a coaxial flow of nitrogen to reduce moisture. Moisture will inhibit the cleaning process. The system is also equipped with inline gas filters, which are fitted just prior to the nozzles.

Availability Commercially available

Current User Not specified

Manufacturer

Applied Surface Technologies
15 Hawthorne Drive
New Providence, NJ 07974
908–464–6675 (Tel)
908–464–7475 (Fax)

Source Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated Not specified

BW Agents Decontaminated Not specified

High Hazard TIMs Decontaminated	Not specified
Medium Hazard TIMs Decontaminated	Not specified
Low Hazard TIMs Decontaminated	Not specified
Decontaminant Solutions	Cleaning solution
Capacity/Throughput	Not specified
Set-up Time	Not specified

Physical Parameters

Size	Not specified
Weight	Not specified
Power Requirements	Not specified

Logistical Parameters

Consumables Required	Decontaminant
Maintenance Repairs Required	Not specified
Shelf Life	Not specified
Transportability	Not specified
Durability	Not specified
Environmental Conditions	68 °F to 86 °F (operating temperature)
Environmental Considerations	Not specified
Resources	Not specified
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	Not specified

Special Requirements

Operator Skills Required	Not specified
Operator Training Required	Not specified
Training Available	Not specified
Manuals Available	Not specified
Support Equipment	Not specified
Testing Information	Information not available
Applicable Regulations	Not specified

General

Equipment Name ***Decontamination Glove Booths***

ID# 5

Picture Not Available

Decontamination Process Physical (removes contaminant)

Applications

Personnel	Equipment	Infrastructure
No	Yes	No

Application Notes Container Products Corporation manufactures a series of commercially available high-pressure decontamination booths. The decontamination units are designed for the decontamination of hand tools and other large heavy items. The booths employ mechanical technology, and they disperse high-pressure water sprays over contaminated equipment. The booths are made from stainless steel and are equipped with a chemical solution injection system.

Availability Commercially available

Current User Not specified

Manufacturer Container Products Corporation
P.O. Box 2767
Wilmington, NC 28406
910–392–6100 (Tel)
910–392–6778 (Fax)
email: cpc@c-p-c.com

Source Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated Not specified

BW Agents Decontaminated Not specified

High Hazard TIMs Decontaminated Not specified

Medium Hazard TIMs Decontaminated Not specified

Low Hazard TIMs Decontaminated Not specified

Decontaminant Solutions Not specified

Capacity/Throughput Not specified

Set-up Time Not specified

Physical Parameters

Size	Not specified
Weight	Not specified
Power Requirements	Not specified

Logistical Parameters

Consumables Required	Not specified
Maintenance Repairs Required	Not specified
Shelf Life	Not specified
Transportability	Not specified
Durability	Constructed of stainless steel
Environmental Conditions	Water supply can be heated to a temperature range of 100 °F to 300 °F.
Environmental Considerations	Not specified
Resources	Not specified
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	Not specified

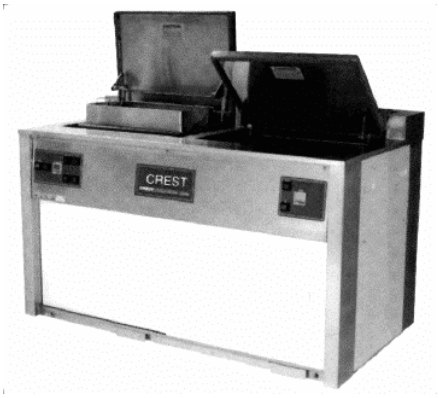
Special Requirements

Operator Skills Required	Not specified
Operator Training Required	Not specified
Training Available	Not specified
Manuals Available	Not specified
Support Equipment	Not specified
Testing Information	Information not available
Applicable Regulations	Not specified

General

Equipment Name *HAL Series*

ID# 6



Decontamination Process Physical (removes contaminant)

Applications

Personnel	Equipment	Infrastructure
No	Yes	No

Application Notes The HAL Series is used to clean hospital instruments completely before they are subjected to disinfection and sterilization. The HAL Series is available commercially in the U.S. and is manufactured by Crest Ultrasonics. The consoles are available in 11 gal, 15 gal, and 20 gal sizes. The systems are easily operated with a push of one button. The systems can be used in conjunction with cleaning solutions in order to obtain optimal cleaning efficiencies.

Availability Commercially available

Current User Not specified

Manufacturer

Crest Ultrasonics
Scotch Road
P.O. Box 7266
Trenton, NJ 08628
609–883–4000 (Tel)
609–883–6452 (Fax)

Source Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated G, VX, D

BW Agents Decontaminated Not specified

High Hazard TIMs Decontaminated Not specified

Medium Hazard TIMs Decontaminated Not specified

Low Hazard TIMs Decontaminated Not specified

Decontaminant Solutions Fuller's Earth

Capacity/Throughput	Not specified
Set-up Time	Not specified

Physical Parameters

Size	Not specified
Weight	Not specified
Power Requirements	Not specified

Logistical Parameters

Consumables Required	Decontaminant
Maintenance Repairs Required	Not specified
Shelf Life	Not specified
Transportability	Not specified
Durability	Not specified
Environmental Conditions	110 °F to 140 °F (operating temperature)
Environmental Considerations	Not specified
Resources	Not specified
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	Not specified

Special Requirements

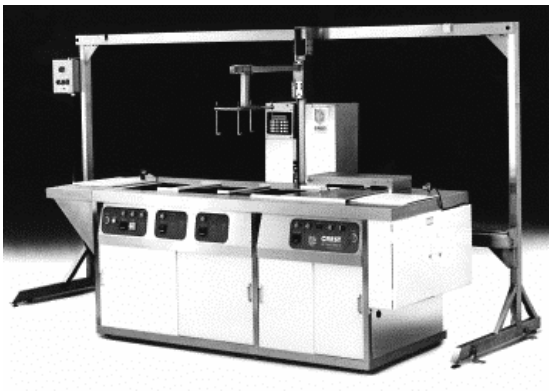
Operator Skills Required	Not specified
Operator Training Required	Not specified
Training Available	Not specified
Manuals Available	Not specified
Support Equipment	Not specified
Testing Information	Information not available
Applicable Regulations	Not specified

General

Equipment Name

ID# 7

The Optimum Console



Decontamination Process

Physical (removes contaminant) and Chemical (neutralizes contaminant)

Applications

Personnel	Equipment	Infrastructure
No	Yes	No

Application Notes

The Optimum Console is a versatile precision cleaning system. It is commercially available in the U.S. and is manufactured by Crest Ultrasonics. The system employs mechanical technology (ultrasonic) and is available in aqueous or semi-aqueous process versions. The system is made from rugged, stainless steel and is available in 3, 4, or 5 stage wash station designs. Stand tank sizes range from 10 L x 14 W x 10 D to 24 L x 36 W x 20 D (in) deep. The three-station Optimum Console is a wash-rinse-dry system designed for most general cleaning applications. The four-station wash-rinse-rinse-dry system is ideal for precision cleaning applications at the microscopic level. The five-station wash-wash-rinse-rinse-dry is configured for semi-aqueous cleaning applications. The Ultrasonic Wash provides high intensity heated ultrasonic wash. Filtered recirculation with overflow aids in removing oil and particulate contaminants. The wash is followed by a Heated Ultrasonic Rinse, which provides a two-stage reverse flow cascade rinse with spray-over immersion, conserving space and water usage. The last stage, the High Efficiency Recirculating Hot Air Dryer, quickly dries parts using compressed air.

Availability

Commercially available

Current User

Not specified

Manufacturer

Crest Ultrasonics
Scotch Road
P.O. Box 7266
Trenton, NJ 08628
609–883–4000 (Tel)
609–883–6452 (Fax)

Source

Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated	Not specified
BW Agents Decontaminated	Not specified
High Hazard TIMs Decontaminated	Not specified
Medium Hazard TIMs Decontaminated	Not specified
Low Hazard TIMs Decontaminated	Not specified
Decontaminant Solutions	Ambergard XE-555 Resin
Capacity/Throughput	Not specified
Set-up Time	Not specified

Physical Parameters

Size	Variety
Weight	Variety
Power Requirements	Not specified

Logistical Parameters

Consumables Required	Not specified
Maintenance Repairs Required	Not specified
Shelf Life	Not specified
Transportability	Not specified
Durability	The system is constructed from rugged stainless steel.
Environmental Conditions	Not specified
Environmental Considerations	Not specified
Resources	Not specified
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	Not specified

Special Requirements

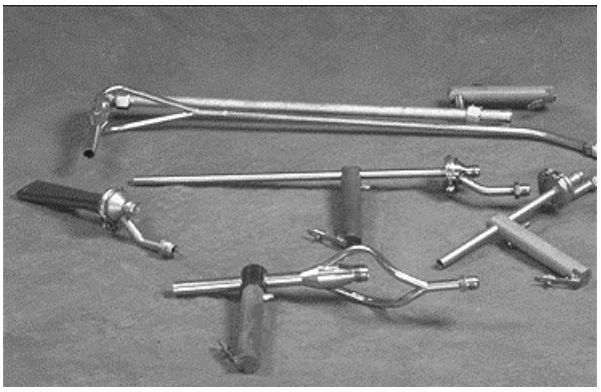
Operator Skills Required	Not specified
Operator Training Required	Not specified
Training Available	Not specified
Manuals Available	Not specified
Support Equipment	Not specified
Testing Information	Information not available
Applicable Regulations	Not specified

General

Equipment Name

Ice Gun

ID# 8



Decontamination Process

Physical (removes contaminant)

Applications

Personnel	Equipment	Infrastructure
No	Yes	No

Application Notes

The Ice Gun is designed to decontaminate sensitive and interior equipment. The Ice Gun is commercially available in the U.S. and is manufactured by Cryogenesis. The gun employs mechanical technology (high-pressure carbon dioxide) with controlled air speed allowing the dry ice to be accelerated to subsonic or supersonic speeds (in excess of 1300 ft/s). The gun's operating range is between 40 psi and 350 psi and is able to be elevated 50 ft to 60 ft. The ice pellets range from 100 µ to ¼ in diameter.

Availability

Commercially available

Current User

Not specified

Manufacturer

Cryogenesis
2140–T Scranton Rd.
Cleveland, OH 44113
216–696–8797 (Tel)
216–696–8794 (Fax)

Source

Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated

None

BW Agents Decontaminated

None

High Hazard TIMs Decontaminated

None

Medium Hazard TIMs Decontaminated

None

Low Hazard TIMs Decontaminated

None

Decontaminant Solutions

None

Capacity/Throughput

Not specified

Set-up Time	Not specified

Physical Parameters

Size	18 W x 26 L x 46 H (in)
Weight	200 lb
Power Requirements	None - all pneumatic

Logistical Parameters

Consumables Required	Compressed air @ 80 psi and 170 SCFM 100 lb/h to 200 lb/h of dry ice
Maintenance Repairs Required	Very low maintenance
Shelf Life	Not specified
Transportability	Very portable
Durability	To last 10 yr
Environmental Conditions	Not specified
Environmental Considerations	Operates at 108 dB
Resources	Not specified
Unit Cost	$13.1K to $19K
Maintenance Cost	$500/yr
Warranty	1 yr

Special Requirements

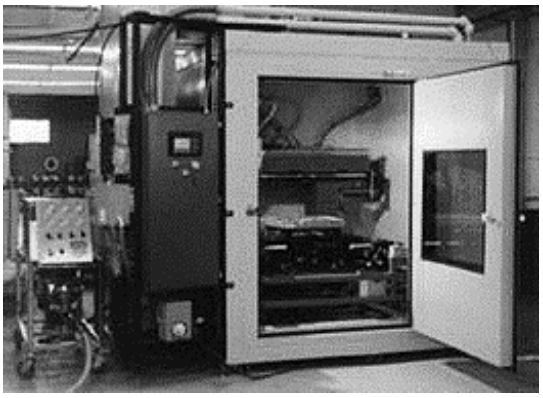
Operator Skills Required	High school
Operator Training Required	1 h to 2 h
Training Available	Yes
Manuals Available	Yes
Support Equipment	Compressor and dry ice
Testing Information	Yes, available from manufacturer
Applicable Regulations	Not specified

General

Equipment Name

ID# 9

Cryogenesis Booth



Decontamination Process

Physical (removes contaminant)

Applications

Personnel	Equipment	Infrastructure
No	Yes	No

Application Notes

The Cryogenesis Booth is a fully automated cleaning system that is commercially available in the U.S. The system employs mechanical technology (high-pressure carbon dioxide) to clean equipment. The booth is equipped with an "x-y" translation and rotation table coupled with a stationary ice gun. Contaminated equipment is placed inside the booth on a table that rotates the equipment around as the ice gun disperses ice pellets to clean the equipment. Contaminated equipment is cleaned in one step. The cleaning system is housed in a soundproof booth.

Availability

Commercially available

Current User

Not specified

Manufacturer

Cryogenesis
2140–T Scranton Rd.
Cleveland, OH 44113
216–696–8797 (Tel)
216–696–8794 (Fax)

Source

Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated

GB, VX, HD

BW Agents Decontaminated

All

High Hazard TIMs Decontaminated

Not specified

Medium Hazard TIMs Decontaminated

Not specified

Low Hazard TIMs Decontaminated

Not specified

Decontaminant Solutions	Dry Ice
Capacity/Throughput	100 lb/h to 200 lb/h dry ice
Set-up Time	30 min

Physical Parameters

Size	18 W x 26 L x 46 H (in)
Weight	200 lb
Power Requirements	None - all pneumatic

Logistical Parameters

Consumables Required	Compressed air @ 80 psi and 170 SCFM 100 lb/h to 200 lb/h of dry ice
Maintenance Repairs Required	Very low maintenance
Shelf Life	Not specified
Transportability	Very portable
Durability	To last 10 yr
Environmental Conditions	Not specified
Environmental Considerations	Operates at 108 dB
Resources	Not specified
Unit Cost	$13.1K to $19K
Maintenance Cost	$500/yr
Warranty	1 yr

Special Requirements

Operator Skills Required	High school
Operator Training Required	1 h to 2 h
Training Available	Yes
Manuals Available	Yes
Support Equipment	Compressor and dry ice
Testing Information	Yes, available from manufacturer
Applicable Regulations	Not specified

General

Equipment Name ***Delta V-1 Dry Ice Surface Cleaning System***

ID# 10

Decontamination Process Physical (removes contaminant) or Chemical (neutralizes contaminant)

Applications

Personnel	Equipment	Infrastructure
No	Yes	No

Application Notes The Delta V-1 Dry Ice Surface Cleaning System employs mechanical technology and is designed as an environmentally safe alternative to the many surface cleaning methods currently available. The system is commercially available in the United States and is manufactured by Cryokinetics. The Delta V-1 is a portable, easy to operate system requiring no electrical power. This system employs small particles of dry ice in conjunction with high air pressure as the primary cleaning method. The dry ice particles convert from a solid to a gas upon impacting the surface being cleaned. This system is a nonwaste generating unit. Rice, plastic beads, glass beads, etc., can be used for more aggressive surface preparation requirements.

Availability Commercially available

Current User Not specified

Manufacturer Cryokinetics
P.O. Box 782183
Wichita, KS 67278
316–681–0080 (Tel)
316–681–0330 (Fax)

Source Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated GB, VX, HD

BW Agents Decontaminated All

High Hazard TIMs Decontaminated Not specified

Medium Hazard TIMs Decontaminated Not specified

Low Hazard TIMs Decontaminated	Not specified
Decontaminant Solutions	Water Sodium Hydroxide DS2
Capacity/Throughput	Not specified
Set-up Time	Not specified

Physical Parameters

Size	1.33 L x 12 W x 2 H (ft)
Weight	85 lb
Power Requirements	Not specified

Logistical Parameters

Consumables Required	Not specified
Maintenance Repairs Required	Not specified
Shelf Life	Not specified
Transportability	Not specified
Durability	Not specified
Environmental Conditions	Not specified
Environmental Considerations	Not specified
Resources	Not specified
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	Not specified

Special Requirements

Operator Skills Required	Not specified
Operator Training Required	Not specified
Training Available	Not specified
Manuals Available	Not specified
Support Equipment	Not specified
Testing Information	Information not available
Applicable Regulations	Not specified

General

Equipment Name ***NBC-DEWDECON-PERS Emergency Response Personnel Decontamination Kit***

ID# 11

Decontamination Process Physical (removes contaminant) or Chemical (neutralizes contaminant)

Applications

Personnel	Equipment	Infrastructure
Yes	No	No

Application Notes The NBC-DEWDECON-PERS Emergency Response Personnel Decontamination Kit is a portable system for the decontamination of skin and personal equipment. Depending on decontaminants used in the kit, either chemical or mechanical technologies may be employed. This system contains equipment and supplies for the immediate decontamination of personnel by civilian firefighters, police, and ambulance crews. The kit was designed to be carried in a vehicle cab or cargo area and can be ready for use within seconds. Items necessary for the decontamination of nerve and blister agents are included in this decontamination kit. Illustrated instructions are included with the kit and all components are clearly labeled for quick identification.

Availability Commercially available

Current User Not specified

Manufacturer DEW Engineering and Development Ltd.
3429 Hawthorne Road
Ottawa, Ontario Canada K1G 4G2
613–736–5100 (Tel)
613–736–1348 (Fax)
email: tdear@dew.ca

Source Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated G agents, V agents, HD

BW Agents Decontaminated Not specified

High Hazard TIMs Decontaminated Not specified

Medium Hazard TIMs Decontaminated	Not specified
Low Hazard TIMs Decontaminated	Not specified
Decontaminant Solutions	Not specified
Capacity/Throughput	Not specified
Set-up Time	Within seconds

Physical Parameters

Size	1.37 W x 1.18 D x 1.83 H (ft)
Weight	50.6 lb
Power Requirements	None

Logistical Parameters

Consumables Required	Decontaminant
Maintenance Repairs Required	None
Shelf Life	Not specified
Transportability	Portable decontamination unit
Durability	Designed to be used in harsh environments.
Environmental Conditions	Not specified
Environmental Considerations	Not specified
Resources	One person
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	Not specified

Special Requirements

Operator Skills Required	Minimal
Operator Training Required	Minimal
Training Available	Not specified
Manuals Available	Not specified
Support Equipment	Not specified
Testing Information	Information not available
Applicable Regulations	Not specified

General

Equipment Name ***NBC-DEWDECON-M Decontaminant Mixer/Applicator***

ID# 12

Decontamination Process Physical (removes contaminant) and Chemical (neutralizes contaminant)

Applications

Personnel	Equipment	Infrastructure
No	Yes	No

Application Notes The NBC-DEWDECON-M Decontaminant Mixer/Applicator is a portable system used to generate calcium hypochlorite based emulsion for decontamination of exterior equipment. This system has been approved for service with the Canadian armed forces. The NBC-DEWDECON-M employs chemical technology (microemulsion) and was developed to provide a noncorrosive and stable means of effectively decontaminating ships, aircrafts, vehicles, and equipment. The C8-C emulsion produced by the mixer neutralizes chemical agents such as TGD, HD, and VX. The emulsion is effective for 24 h to 72 h, depending on ambient temperature. A toluene-based perchloroethylene solvent replacement is also available. The mixer can be set up in 10 min by two people and will produce a continuous online calcium hypochlorite based emulsion at a rate of up to 2200 L/h. The mixer can be used as a direct applicator or to fill the DEWDECON-20L device for remote decontamination. The mixer has a built-in rinse capability and a top-mounted accessory box for storing hoses, wands, spare parts, and tools. Both diesel and petrol powered units are available.

Availability Commercially available

Current User In service with the Canadian armed forces

Manufacturer

DEW Engineering and Development Ltd.
3429 Hawthorne Road
Ottawa, Ontario, Canada K1G 4G2
613–736–5100 (Tel)
613–736–1348 (Fax)
email: tdear@dew.ca

Source Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated	G agents, VX, HD
BW Agents Decontaminated	All
High Hazard TIMs Decontaminated	Not specified
Medium Hazard TIMs Decontaminated	Not specified
Low Hazard TIMs Decontaminated	Not specified
Decontaminant Solutions	C8-C emulsion
Capacity/Throughput	Delivers 2200 L of decontaminant per hour
Set-up Time	10 min

Physical Parameters

Size	4.26 L x 3.18 W x 2.91 H (ft)
Weight	785.4 lb
Power Requirements	Not specified

Logistical Parameters

Consumables Required	Decontaminant
Maintenance Repairs Required	Not specified
Shelf Life	Not specified
Transportability	Portable Decontamination Unit
Durability	Not specified
Environmental Conditions	Not specified
Environmental Considerations	Not specified
Resources	Two people
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	Not specified

Special Requirements

Operator Skills Required	Not specified
Operator Training Required	Not specified
Training Available	Not specified
Manuals Available	Not specified
Support Equipment	Not specified
Testing Information	Information not available
Applicable Regulations	Not specified

General

Equipment Name ***NBC-DEWDECON-2L***

ID# 13

Decontamination Process Physical (removes contaminant) and Chemical (neutralizes contaminant)

Applications

Personnel	Equipment	Infrastructure
No	Yes	No

Application Notes The NBC-DEWDECON-2L decontamination device is a lightweight man-portable system designed to decontaminate exterior equipment. This system is manufactured in Canada by DEW Engineering and Development Ltd., and is currently in service in the Middle East. The NBC-DEWDECON-2L employs chemical technology and is used to disseminate DS2 decontaminating agent in a controlled spray to remove chemical warfare agents from contaminated surfaces. The DEWDECON-2L is a smaller version of the DEW 3 L unit and shares many interchangeable parts. The DEW 2 L device uses nitrogen cartridges as the primary method of pressurization, with an attached hand pump as backup. The device comes complete with a mounting bracket, spare parts, tools, and spare nitrogen cylinders. It is reusable and can be filled, pressurized, and operated while wearing full NBC protective clothing.

Availability Commercially available

Current User In service in the Middle East

Manufacturer

DEW Engineering and Development Ltd.
3429 Hawthorne Road
Ottawa, Ontario, Canada K1G 4G2
613–736–5100 (Tel)
613–736–1348 (Fax)
email: tdear@dew.ca

Source Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated GB, VX, HD

BW Agents Decontaminated All

High Hazard TIMs Decontaminated	Not specified
Medium Hazard TIMs Decontaminated	Not specified
Low Hazard TIMs Decontaminated	Not specified
Decontaminant Solutions	DS2
Capacity/Throughput	Not specified
Set-up Time	Not specified

Physical Parameters

Size	5.88 W x 6.24 D x 17.3 L (in)
Weight	8.8 lb (dry weight)
Power Requirements	Not specified

Logistical Parameters

Consumables Required	Decontaminant, nitrogen cartridges
Maintenance Repairs Required	Not specified
Shelf Life	Not specified
Transportability	Man-Portable Decontamination Unit
Durability	Not specified
Environmental Conditions	Not specified
Environmental Considerations	Not specified
Resources	Not specified
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	Not specified

Special Requirements

Operator Skills Required	Not specified
Operator Training Required	Not specified
Training Available	Not specified
Manuals Available	Not specified
Support Equipment	Not specified
Testing Information	Information not available
Applicable Regulations	Not specified

General

Equipment Name ***NBC-DEWDECON-3L Decontamination Device***

ID# 14

Decontamination Process Physical (removes contaminant) and Chemical (neutralizes contaminant)

Applications

Personnel	Equipment	Infrastructure
No	Yes	No

Application Notes The NBC-DEWDECON-3L Decontamination Device is a lightweight, man-portable system designed to decontaminate exterior equipment. This system is currently in service with Australian, Canadian, and Saudi Arabian armed forces. The NBC DEWDECON-3L employs chemical technology to disseminate DS2 decontaminant in a controlled spray for 1 m to 3 m. This system is used to remove chemical agents from the surface of military equipment and it can be filled, charged, and operated while wearing full NBC protective clothing. The device can be pressurized using an air compressor or by hand. The NBC-DEWDECON-3L is deployed on wheeled and track vehicles, aircraft ground support equipment, and exterior bulkheads of ships. This item is supplied with a mounting bracket, pressure gauge, safety relief valve, and operator instructions in English, French, and Arabic. The DEW-3L is corrosion resistant to DS2, reusable, and adaptable to other decontaminants. All required maintenance can be performed by the operator using spare parts and tools provided with each unit. The hand pump on the DEW-3L is interchangeable with the NBC-DEWDECON-20L Decontamination Device. When stowed in its mounting bracket, the DEW-3L measures 150 mm in width, 160 mm in depth, and 635 mm in height. The dry weight of the NBC-DEWDECON-3L is 5.4 kg.

Availability Commercially available

Current User In service in Australia, Canada, and Saudi Arabia.

Manufacturer

DEW Engineering and Development Limited
3429 Hawthorne Road
Ottawa, Ontario, Canada K1G 4G2
613–736–5100 (Tel)
613–736–1348 (Fax)
email: tdear@dew.ca

Source	Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated	GB, VX, HD
BW Agents Decontaminated	All
High Hazard TIMs Decontaminated	Not specified
Medium Hazard TIMs Decontaminated	Not specified
Low Hazard TIMs Decontaminated	Not specified
Decontaminant Solutions	DS2
Capacity/Throughput	Not specified
Set-up Time	Not specified

Physical Parameters

Size	5.88 W x 6.24 D x 25 H (in)
Weight	11.88 lb (dry weight)
Power Requirements	Not specified

Logistical Parameters

Consumables Required	Decontaminant
Maintenance Repairs Required	Yes
Shelf Life	Not specified
Transportability	Man-Portable Decontamination Unit
Durability	Corrosion resistant to DS2, reusable, and adaptable to other decontaminants
Environmental Conditions	Not specified
Environmental Considerations	Not specified
Resources	Not specified
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	Not specified

Special Requirements

Operator Skills Required	Not specified
Operator Training Required	Not specified
Training Available	Not specified
Manuals Available	Not specified
Support Equipment	Air Compressor
Testing Information	Information not available
Applicable Regulations	Not specified

General

Equipment Name *NBC-DEWDECON-20L Decontamination Device*

ID# 15

Decontamination Process Physical (removes contaminant) and Chemical (neutralizes contaminant)

Applications

Personnel	Equipment	Infrastructure
No	Yes	No

Application Notes The NBC-DEWDECON-20L Decontamination Device is a man-portable decontamination system designed to decontaminate exterior equipment. The NBC-DEWDECON-20L employs chemical technology (microemulsion) to disseminate C8-C type decontaminant using a standard 5 gal (22.7 L) plastic jerrican. The DEW-20L can be filled, pressurized, and operated wearing full NBC protective clothing. The tank capacity is 18.5 L and pressurization occurs through an external air source or the use of the integral hand pump. The integral hand pump is interchangeable with the NBC-DEWDECON-3L Decontamination Device. Any required maintenance can be performed using the spare parts and tool kit provided. Additionally, an optional DS2 conversion is also available that will enable the NBC-DEWDECON-20L to disseminate DS2. An operator with a fully charged device can decontaminate an M113 armored personnel carrier within 8 min. The DEW-20L device is filled using the NBC-DEWDECON-M emulsion mixer and the C8-C decontaminant. The C8-C decontaminant is effective for at least 72 h. The NBC-DEWDECON-20L is supplied in a rugged fabric bag that fits into any available space on a vehicle.

Availability Commercially available

Current User In service in Australia, Canada, and Saudi Arabia

Manufacturer

DEW Engineering and Development Ltd.
3429 Hawthorne Road
Ottawa, Ontario, Canada K1G 4G2
613–736–5100 (Tel)
613–736–1348 (Fax)
email: tdear@dew.ca

Source Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated	G agents, VX, HD
BW Agents Decontaminated	All
High Hazard TIMs Decontaminated	Not specified
Medium Hazard TIMs Decontaminated	Not specified
Low Hazard TIMs Decontaminated	Not specified
Decontaminant Solutions	C8-C emulsion
Capacity/Throughput	Not specified
Set-up Time	Not specified

Physical Parameters

Size	23.6 W x 7.92 D x 5.88 H (in)
Weight	22 lb
Power Requirements	Not specified

Logistical Parameters

Consumables Required	Decontaminant
Maintenance Repairs Required	Yes
Shelf Life	Not specified
Transportability	Man-Portable Decontamination Unit
Durability	Supplied in a rugged fabric bag
Environmental Conditions	Not specified
Environmental Considerations	Not specified
Resources	Not specified
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	Not specified

Special Requirements

Operator Skills Required	Not specified
Operator Training Required	Not specified
Training Available	Not specified
Manuals Available	Operations and maintenance manual
Support Equipment	Not specified
Testing Information	Information not available
Applicable Regulations	Not specified

General

Equipment Name *M17 Lightweight Decontamination System, Sanator*

ID# 16

Picture Not Available

Decontamination Process Physical (removes contaminant) or Chemical (neutralizes contaminant)

Applications

Personnel	Equipment	Infrastructure
Yes	Yes	No

Application Notes The M17 Lightweight Decontamination System, Sanator is a lightweight, man-portable, and self-contained decontamination system designed to decontaminate personnel and exterior equipment. The system is under license from Karl H. Hoie & Company, Norway, and is in service with Australian, Finnish, Norwegian, Saudi Arabian, Spanish, Swedish, U.K., and U.S. armed services. The Sanator employs mechanical technology in order to decontaminate surfaces. Approximately 24 L of superheated water per minute can be dispersed at high-pressures from 1 to 2 spray wands. The system can also supply up to 80 L of water per minute to 12 showerheads for skin and personal decontamination. The system is equipped with two high-pressure spray wands, 12 shower points, a 10 m suction hose with filter, two 20 m high-pressure hoses, and a high-volume chemical decontaminant injector (to add decontaminants to the water stream). The system uses a 6000 L water tank and is powered by an 8.5 horsepower (hp) two-stroke, air-cooled engine, allowing the system the capability of suctioning water from any water source to a height of 3 m.

Availability Commercially available

Current User In service with the U.S. Army, Air Force, and Marine Cops

Manufacturer Engineered Air Systems, Inc.
1270 North Price Rd.
St. Louis, MO 63132
POC: Frank Tricomi
314–993–5885 ext. 284 (Tel)
314–567–4052 (Fax)

Source Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated GB, VX, HD

BW Agents Decontaminated All

High Hazard TIMs Decontaminated	Not specified
Medium Hazard TIMs Decontaminated	Not specified
Low Hazard TIMs Decontaminated	Not specified
Decontaminant Solutions	Water
Capacity/Throughput	Approximately 24 L of superheated water (302 °F) per minute can be dispersed at high-pressures from 1 to 2 spray wands. The system can also supply up to 80 L of water per minute to 12 showerheads for skin and personal decontamination.
Set-up Time	Not specified

Physical Parameters

Size	19 ft^3
Weight	375 lb
Power Requirements	8.5 hp two-stroke engine

Logistical Parameters

Consumables Required	Not specified
Maintenance Repairs Required	Not specified
Shelf Life	Not specified
Transportability	Man-Portable Decontamination Unit
Durability	Not specified
Environmental Conditions	The M17 can be operated by one person and in temperatures as low as -40 °F.
Environmental Considerations	Not specified
Resources	One operator
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	1 yr

Special Requirements

Operator Skills Required	Minimal
Operator Training Required	Minimal training required to operate or maintain the unit. It is virtually automatic in its operation.
Training Available	An operator and maintainer training course has been developed and is available.
Manuals Available	There are extensive technical manuals and detailed maintenance manuals available complete with illustrated parts lists, spare part requirements, required tools and consumables.

Support Equipment	Water bladders (1600 gal, 3000 gal, 10000 gal, and 20000 gal) are available depending on the customer's operational requirement
Testing Information	Information not available
Applicable Regulations	Not specified

General

Equipment Name ***DECON Powder Glove***

ID# 17

Picture Not Available

Decontamination Process Physical (removes contaminant)

Applications

Personnel	Equipment	Infrastructure
Yes	No	No

Application Notes Information not available

Availability Commercially available

Current User French army, civil defense, Singapore

Manufacturer GIAT Industries
78034 Versailles Cedex, France
+33–1309–73991 (Tel)
+33–1309–73967 (Fax)

North American Distributor: The CENTECH GROUP, Inc.
4600 North Fairfax Drive, Suite 400
Arlington, VA 22203
800–938–1026 (Tel)
http://www.giat-industries.fr

Source GIAT Industries NBC Defense

Operational Parameters

CW Agents Decontaminated GB, VX, HD

BW Agents Decontaminated Not specified

High Hazard TIMs Decontaminated Not specified

Medium Hazard TIMs Decontaminated Not specified

Low Hazard TIMs Decontaminated Not specified

Decontaminant Solutions Fuller's Earth

Capacity/Throughput Not specified

Set-up Time Not specified

Physical Parameters

Size 8.16 x 4.68 x 0.6 (in)

Weight	0.275 lb
Power Requirements	None

Logistical Parameters

Consumables Required	None
Maintenance Repairs Required	None
Shelf Life	10 yr
Transportability	Man-Portable Decontamination Unit
Durability	Not specified
Environmental Conditions	To be used for shelter of rain or wind
Environmental Considerations	Not specified
Resources	One man
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	1 yr

Special Requirements

Operator Skills Required	Hazmat technician or NBC trained personnel
Operator Training Required	Not specified
Training Available	Yes
Manuals Available	User manual
Support Equipment	None
Testing Information	Information not available
Applicable Regulations	Not specified

General

Equipment Name ***Personal Decontamination Kit***

ID# 18

Picture Not Available

Decontamination Process Physical (removes contaminant) and/or Chemical (neutralizes contaminant)

Applications

Personnel	Equipment	Infrastructure
Yes	No	No

Application Notes Information not available

Availability Commercially available

Current User French Civil Defense Fire Brigade

Manufacturer GIAT Industries
78034 Versailles Cedex, France
+33–1309–73991 (Tel)
+33–1309–73967 (Fax)

North American Distributor: The CENTECH GROUP, Inc.
4600 North Fairfax Drive, Suite 400
Arlington, VA 22203
800–938–1026 (Tel)
http://www.giat-industries.fr

Source GIAT Industries NBC Defense

Operational Parameters

CW Agents Decontaminated GA, GB, GD, VX, HD, L

BW Agents Decontaminated Not specified

High Hazard TIMs Decontaminated Not specified

Medium Hazard TIMs Decontaminated Not specified

Low Hazard TIMs Decontaminated Not specified

Decontaminant Solutions Potassium Permanganate conc.: 0.05 %
Sodium Hydrogen carbonate conc.: 1.5 %
Sodium Hypochlorite conc.: 0.04 %

Capacity/Throughput Decontaminates 5 people

Set-up Time Not specified

Physical Parameters

Size	2.6 L x 1.5 W x 1.3 H (ft)
Weight	47 lb
Power Requirements	None

Logistical Parameters

Consumables Required	Decontaminant
Maintenance Repairs Required	Maintenance on gasket every 5 yr
Shelf Life	9 yr for sprayer, 5 yr for decon solution
Transportability	Not specified
Durability	Rugged for emergency use
Environmental Conditions	Operates in common environmental conditions.
Environmental Considerations	Regulations not known about waste
Resources	One man per sprayer
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	1 yr

Special Requirements

Operator Skills Required	Hazmat technician or NBC trained personnel
Operator Training Required	1 h of training is required to operate equipment
Training Available	Yes
Manuals Available	User manual
Support Equipment	None
Testing Information	Information not available
Applicable Regulations	None

General

Equipment Name ***SDMS Sensitive Material Decontamination System***

ID# 19

Picture Not Available

Decontamination Process Physical (removes contaminant) and/or Chemical (neutralizes contaminant)

Applications

Personnel	Equipment	Infrastructure
Yes	Yes	No

Application Notes Personnel equipment, sensitive equipment, interior equipment

Availability Military

Current User French army, German army

Manufacturer

GIAT Industries
78034 Versailles Cedex, France
+33–1309–73991 (Tel)
+33–1309–73967 (Fax)

North American Distributor: The CENTECH GROUP, Inc.
4600 North Fairfax Drive, Suite 400
Arlington, VA 22203
800–938–1026 (Tel)
http://www.giat-industries.fr

Source GIAT Industries NBC Division

Operational Parameters

CW Agents Decontaminated GA, GD, VX, HD

BW Agents Decontaminated Not specified

High Hazard TIMs Decontaminated Not specified

Medium Hazard TIMs Decontaminated Not specified

Low Hazard TIMs Decontaminated Not specified

Decontaminant Solutions Noncorrosive solution (IGA 02 / IGA 07). other decon solutions may be used.

Capacity/Throughput 54 small guns, 54 helmets, 54 masks/h

Set-up Time Not specified

Physical Parameters

Size	Shelter is 20 ft
Weight	Less than or equal to 10 T
Power Requirements	Autonomy: 75 KWA-ac available 400 V:dc

Logistical Parameters

Consumables Required	Decon solution, Gas-oil, batteries, water
Maintenance Repairs Required	Prototype under evaluation
Shelf Life	20 yr
Transportability	Sea/air transportation
Durability	Mil Spec
Environmental Conditions	Functioning by day and night of -32 °C to +49 °C with restriction from -5 °C
Environmental Considerations	Effluents are recovered
Resources	3 man (1 specialist trained with this system)
Unit Cost	On request
Maintenance Cost	Prototype under evaluation
Warranty	1 yr

Special Requirements

Operator Skills Required	User manual and training manual
Operator Training Required	4 d
Training Available	On request
Manuals Available	User manual and maintenance manual
Support Equipment	Not specified
Testing Information	French Ministry of Defense BW-Allemagne
Applicable Regulations	Export license

General

Equipment Name ***Thorough Decontamination System***

ID# 20

Picture Not Available

Decontamination Process	Physical (removes contaminant) and/or Chemical (neutralizes contaminant)
Applications	**Personnel** No; **Equipment** Yes; **Infrastructure** No
Application Notes	Information not available
Availability	Commercially available
Current User	French army forces
Manufacturer	GIAT Industries 78034 Versailles Cedex, France +33–1309–73991 (Tel) +33–1309–73967 (Fax) North American Distributor: The CENTECH GROUP, Inc. 4600 North Fairfax Drive, Suite 400 Arlington, VA 22203 800–938–1026 (Tel) http://www.giat-industries.fr
Source	GIAT Industries NBC Defense

Operational Parameters

CW Agents Decontaminated	GA, GD, VX, HD
BW Agents Decontaminated	Not specified
High Hazard TIMs Decontaminated	Not specified
Medium Hazard TIMs Decontaminated	Not specified
Low Hazard TIMs Decontaminated	Not specified
Decontaminant Solutions	Not specified
Capacity/Throughput	Decontaminates 10 vehicles per hour
Set-up Time	Not specified

Physical Parameters

Size	31 x 148 x 23 (ft)
Weight	Not specified
Power Requirements	Not specified

Logistical Parameters

Consumables Required	Anti freeze Water Gas-oil Batteries Decontaminant
Maintenance Repairs Required	Yes (monthly)
Shelf Life	20 yr
Transportability	Not specified
Durability	Not specified
Environmental Conditions	14 °F to 120 °F (operating temperature)
Environmental Considerations	No recuperation of effluents
Resources	3 men
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	1 yr

Special Requirements

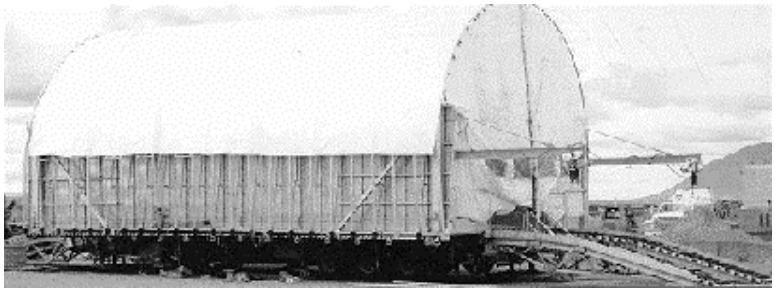
Operator Skills Required	Hazmat technician or NBC trained personnel
Operator Training Required	5 d of training is required to operate this equipment
Training Available	Yes
Manuals Available	User manual and maintenance manual
Support Equipment	Not specified
Testing Information	Information not available
Applicable Regulations	Export license

General

Equipment Name

Mobile Decon Pad

ID# 21



Decontamination Process

Physical (removes contaminant)

Applications

Personnel	Equipment	Infrastructure
Yes	No	No

Application Notes

The Mobile Decon Pad is designed to decontaminate exterior equipment as well as skin and personal equipment. The Decon Pad is commercially available in the U.S. The Mobile Decon Pad can incorporate an already used decontamination spray technology, or one can be designed along with the pad. Depending on the decontamination solutions utilized, the Mobile Decon Pad may employ one or more of the following technologies: chemical, mechanical, or high-pressure. The pad is portable and is capable of grossly decontaminating people as well as items ranging in size from small hand tools to large military vehicles. The system is fully operational in less than 2 h. The Mobile Decon Pad has been engineered with a stainless steel structure to resist contaminates and chemical agents. Key features of the system include the ability to maintain an exclusion zone and provide for secondary containment. In addition, the mobile system can be moved from site to site to accommodate new requirements and eliminates the need for fixed facilities.

Availability

Commercially available

Current User

Not specified

Manufacturer

HazDecon
810-TW. Alex Bell Rd.
Dayton, OH 43459
888–800–3266 (Tel)

Source

Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated

Not specified

BW Agents Decontaminated

Not specified

High Hazard TIMs Decontaminated

Not specified

Medium Hazard TIMs Decontaminated

Not specified

Low Hazard TIMs Decontaminated	Not specified
Decontaminant Solutions	Carbon dioxide
Capacity/Throughput	Not specified
Set-up Time	Less than 2 h

Physical Parameters

Size	45 L x 24 W (ft)
Weight	Not specified
Power Requirements	Not specified

Logistical Parameters

Consumables Required	Not specified
Maintenance Repairs Required	Not specified
Shelf Life	Not specified
Transportability	Not specified
Durability	The Mobile Decon Pad has been engineered with a stainless steel structure to resist chemical agents.
Environmental Conditions	Not specified
Environmental Considerations	Not specified
Resources	Not specified
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	Not specified

Special Requirements

Operator Skills Required	Not specified
Operator Training Required	Not specified
Training Available	Not specified
Manuals Available	Not specified
Support Equipment	Not specified
Testing Information	Information not available
Applicable Regulations	Not specified

General

Equipment Name ***Mobile Laboratories***

ID# 22

Decontamination Process Physical (removes contaminant)

Applications

Personnel	Equipment	Infrastructure
No	Yes	No

Application Notes Mobile Laboratories are custom made decontamination laboratories designed to provide decontamination instrumentation, clean rooms, HEPA filtration, deionized water as well as various other features. The laboratories are commercially available in the U.S. and are manufactured by HazDecon Rental & Sales Inc. Many hazardous waste contractors, laboratories, and several companies and organizations in the U.S currently use them. The self-contained systems range in size from 16 ft to 55 ft in length and 8 ft to 12 ft in width. Key features of the mobile laboratories include gas chromatograph and atomic absorption vent systems, refrigerators, slide-out gas cylinder racks (2 bottles), a gas/zero air generator hookup, a complete HVAC system, and a wet chemistry area to include sink and drying rack. In addition, these systems include an acid storage cabinet, a flammable storage cabinet, instrument tie-down tracks, a stainless steel gas manifold system, and a fume hood. Additionally, the mobile laboratory comes with 125 A 240 V electrical service. Finally, all systems are equipped with 204 in of curbside countertop space and 238 in of roadside countertop space. The laboratory has an epoxy floor system, cooler storage, and an optional hot plate, furnace or oven for decontamination crew conveniences.

Availability Commercially available

Current User Not specified

Manufacturer HazDecon
810-TW. Alex Bell Rd.
Dayton, OH 43459
888–800–3266 (Tel)

Source Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated Not specified

BW Agents Decontaminated Not specified

High Hazard TIMs Decontaminated	Not specified
Medium Hazard TIMs Decontaminated	Not specified
Low Hazard TIMs Decontaminated	Not specified
Decontaminant Solutions	Carbon dioxide
Capacity/Throughput	Not specified
Set-up Time	Not specified

Physical Parameters

Size	55 L x 12 W (ft)
Weight	Not specified
Power Requirements	240 V @ 125 A

Logistical Parameters

Consumables Required	Not specified
Maintenance Repairs Required	Not specified
Shelf Life	Not specified
Transportability	Mobile Decontamination Unit
Durability	Not specified
Environmental Conditions	Not specified
Environmental Considerations	Not specified
Resources	Not specified
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	Not specified

Special Requirements

Operator Skills Required	Not specified
Operator Training Required	Not specified
Training Available	Not specified
Manuals Available	Not specified
Support Equipment	Not specified
Testing Information	Information not available
Applicable Regulations	Not specified

General

Equipment Name ***Portaflex CUPOLA Decontamination Shelter***

ID# 23

Decontamination Process Physical (removes contaminant) and Chemical (neutralizes contaminant)

Applications

Personnel	Equipment	Infrastructure
Yes	No	No

Application Notes The Portaflex CUPOLA is a decontamination shelter used with the Portaflex 300. The CUPOLA is designed to provide containment of contaminated water or decontamination solutions following a decontamination effort. The CUPOLA allows contaminated personnel to walk through from the dirty area to a clean area while undergoing decontamination using the Portaflex 300. The shelter frame incorporates four legs that are inflated under low pressure. An inner lining that has windows on two opposite sides, to enable the decontamination process to be observed, runs across the legs. The openings are fitted with drop down splash flaps to eliminate overspray.

Availability Commercially available

Current User Not specified

Manufacturer Hughes Safety Showers USA
115 N. Lee St. Suite 502
Alexandria, VA 22314
703–836–7486 (Tel)
703–836–8090 (Fax)
email: hoyas1@erols.com

Source Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated Not specified

BW Agents Decontaminated Not specified

High Hazard TIMs Decontaminated Not specified

Medium Hazard TIMs Decontaminated Not specified

Low Hazard TIMs Decontaminated	Not specified
Decontaminant Solutions	Not specified
Capacity/Throughput	Not specified
Set-up Time	45 s to 60 s

Physical Parameters

Size	Not specified
Weight	99 lb
Power Requirements	None

Logistical Parameters

Consumables Required	None
Maintenance Repairs Required	Not specified
Shelf Life	Not specified
Transportability	Portable Decontamination Unit
Durability	Information not available
Environmental Conditions	None
Environmental Considerations	Not specified
Resources	Not specified
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	Not specified

Special Requirements

Operator Skills Required	Not specified
Operator Training Required	Not specified
Training Available	Not specified
Manuals Available	Not specified
Support Equipment	Portaflex 300 Decontamination Showers
Testing Information	Information not available
Applicable Regulations	Not specified

General

Equipment Name ***Portaflex Decontamination Shower Series***

ID# 24

Decontamination Process Physical (removes contaminant)

Applications

Personnel	Equipment	Infrastructure
Yes	No	No

Application Notes The Portaflex Decontamination Showers are a series of decontamination showers used to wash skin and personal equipment. The Portaflex Decontamination Showers are manufactured in the U.S. by Hughes Safety Showers. The system primarily employs mechanical technology. The series is comprised of four different showers, the Portaflex 75, 200, 300, and 500. The showers vary only in size and weight. The Portaflex 75 is the smallest of the shower series. The shower unit is a compact unit and is only to be used until a major, full-size unit is available. The Portaflex 75 is made of a heavy-duty stainless steel pipe work base. It is equipped with a 1.5 in Durline flexible hose with six spray nozzles that disperses water on all sides of the contaminated individual. The Portaflex 75 can be set up in 30 s. The Portaflex 200 is a full size decontamination shower weighing 29.5 kg and is 128 cm long, 52 cm wide, and 17 cm high. The shower base is made from stainless steel pipe work and can also be set up in 30 s. The Portaflex 300 is also a full size decontamination shower. It weighs 25 kg and is 77 cm long, 50 cm wide, and 19 cm high. The shower is made up of four 0.5 in (38 mm) lay-flat Duraline hoses, that form four shower legs. Each leg is fitted with four spray nozzles. When under pressure, the hose legs and the base frame assembly become rigid, thus forming a stable frame for the decontamination of personnel. The system can be assembled in 45 s and can be easily transported in a carrying case that doubles as the base platform of the shower unit. The Portaflex 500 is a multi-personnel decontamination shower module. It weighs 85 kg and is 140 cm long, 40 cm wide, and 49 cm high. The system is designed to provide the decontamination of mass casualties. The Portaflex 500 is comprised of 5 separate shower modules that are inter-connected. The system can also come equipped with screens for privacy. The entire system can be assembled in less than 5 min.

Availability Commercially available

Current User	The Portaflex 500 is a multi-personnel decontamination shower module. It weighs 85 kg and is 140 cm long, 40 cm wide, and 49 cm high. The system is designed to provide the decontamination of mass casualties. The Portaflex 500 is comprised of five separate shower modules that are inter-connected. The system can also come equipped with screens for privacy. The entire system can be assembled in less than 5 min.
Manufacturer	Hughes Safety Showers USA 115 N. Lee St. Suite 502 Alexandria, VA 22314 703–836–7486 (Tel) 703–836–8090 (Fax) email: hoyas1@erols.com
Source	Wide Area Decon: CB Decontamination Technologies, Equipment, and Projects, 22 March 1999 (U.S. Joint Service Material Group)

Operational Parameters

CW Agents Decontaminated	GB, VX, HD
BW Agents Decontaminated	All
High Hazard TIMs Decontaminated	Not specified
Medium Hazard TIMs Decontaminated	Not specified
Low Hazard TIMs Decontaminated	Not specified
Decontaminant Solutions	Water
Capacity/Throughput	Not specified
Set-up Time	30 s to 5 min

Physical Parameters

Size	Portaflex 75 - 3.41 x 2.50 x 0.52 (ft) Portaflex 200 - 4.20 x 1.70 x 0.55 (ft) Portaflex 300 - 2.52 x 1.64 x 0.62 (ft) Portaflex 500 - 4.60 x 1.31 x 1.60 (ft)
Weight	75 lb to 37.4 lb 200 lb to 64.9 lb 300 lb to 55 lb 500 lb to 187 lb
Power Requirements	Not specified

Logistical Parameters

Consumables Required	Decontaminant
Maintenance Repairs Required	Not specified
Shelf Life	Not specified
Transportability	Portable Decontamination Unit
Durability	Not specified

Environmental Conditions	Not specified
Environmental Considerations	Not specified
Resources	Not specified
Unit Cost	Not specified
Maintenance Cost	Not specified
Warranty	Not specified

Special Requirements

Operator Skills Required	Minimal
Operator Training Required	Minimal
Training Available	Not specified
Manuals Available	Not specified
Support Equipment	Not specified
Testing Information	Information not available
Applicable Regulations	Not specified