INFORMATION PAPER



Manufacturers of Halon Recycling, Recovery and Reclaim Equipment

> UNEP DTIE OZONACTION PROGRAMME OZONACTION INFORMATION CLEARINGHOUSE JANUARY 2002





Technology, Industry and Economics

MANUFACTURERS OF HALON RECYCLING, RECOVERY AND RECLAIM EQUIPMENT

HALON MANAGEMENT SUPPORT SERIES

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UPDATES

The information in this paper will be updated on a regular basis. Any questions or comments about this publication should be forwarded to:

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MANUFACTURERS OF HALON RECYCLING, RECOVERY AND RECLAIM EQUIPMENT

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INTRODUCTION

In November 1994, Decision IV/26 of the Parties to the Montreal Protocol mandated UNEP to establish the International Recycled Halon Bank Management Information Clearinghouse (IRHBMIC). This clearinghouse, which is operated by the UNEP DTIE OzonAction Programme under the Multilateral Fund, collects and disseminates information relevant to international halon bank management.

Through Decision X/7 (November 1998), the Parties to the Montreal Protocol reinforced the need for countries to develop comprehensive strategies to manage their halon stocks. Halon bank management consists of keeping track of halon quantities at each stage: initial filling, installation, "recycling", and storage. A major goal of a halon bank is to avoid demand for new (virgin) halons by re-deploying halons from decommissioned systems or non-essential applications to essential uses.

Since halon recovery, recycling and reclaim equipment is an integral part of halon management, the clearinghouse maintains and regularly updates this worldwide list of manufacturers as part of the *Halon Management Support Series*. This list is intended for National Ozone Units, halon banks, fire protection agencies, industry and other organisations involved in halon management.

We welcome new information about suppliers that should be added to this paper for future updates.

FOR MORE INFORMATION ABOUT THE PHASE OUT OF HALON UNDER THE MONTREAL PROTOCOL, HALON MANAGEMENT AND HALON BANKING, PLEASE VISIT <u>WWW.HALONTRADER.ORG</u> OR <u>WWW.UNEPTIE.ORG/OZONACTION.HTML</u>

MANUFACTURERS OF HALON RECYCLING, RECOVERY AND RECLAIM EQUIPMENT HALON MANAGEMENT SUPPORT SERIES

HALON-1211

PRODUCT NAME	DEFENDER 2000/M-1, DEFENDER 2000/C-1
SUPPLIER	FRC International, Inc.
	6150 Merger Drive
	Holland, Ohio 43528
	United States
	Tel: (1) 419-867-8990
	Fax: (1) 419-867-3279
	Email: frc@norden1.com
DETAILS	 The M-1 recovers, reclaims and recycles halon-1211 between pressure vessels for maintenance, storage, cleaning, and other activites. Designed to be deployed into landbased and shipboard locations. Manufactured in accordance with U.S. Navy/Marine Corps Specifications. The C-2 is a halon-1211 recycling system based on the M-1 military version but specifically designed for the commercial user. Recovers halon-1211 and nitrogen gas from existing portable and wheeled fire equipment. UL 2006 Listed and is in accordance with National Fire Protection Association (NFPA-10) Standards.

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PRODUCT NAME	HALON 1211 RECOVERY/RECYCLE SYSTEM 58614
SUPPLIER	Getz Manufacturing
	1525 SW Adams
	Peoria, Illinois 61602
	United States
	Tel: (1) 309-674-1723
	Fax: (1) 309-673-6088
	Email:salesinquiry@getzmfg.com
	http://www.getzmfg.com/prod02.htm
DETAILS	Transfers halon-1211 liquid and vapor
	Creates a 20" vacuum in extinguisher
	Reuses original nitrogen to re-pressurize extinguishers
	• Filters particulate matter out of halon-1211
	Meets and exceeds UL Standard 2006
	• Operates on compressed air pressure at 65-80 psi at a minimum of 13 cfm
	• Capabilities 16.5 lbs. per minute max
	Includes training video
	• Includes 250 lb. tank
	• Removes moisture to below 20 parts per million
	 Shipping weight 200 lbs.

MANUFACTURERS OF HALON RECYCLING, RECOVERY AND RECLAIM EQUIPMENT HALON MANAGEMENT SUPPORT SERIES

PRODUCT NAME	HALON 1211 UPGRADE FOR H-1301 RECYCLING MACHINE
SUPPLIER	Neutronics, Inc. Ntron Division 456 Creamery Way Exton, Pennsylvania 19341 United States Tel: (1) 610-524-8800 Fax: (1) 610-524-8807 Email: info@neutronicsinc.com/halon13 01rs.html
DETAILS	 The H-1301 recycling machine is available with an upgrade/option to provide the capability to detect halon-1211. Used by a variety of industries such as fire protection, oil refineries, military applications, industrial plants and computer rooms. Capable of extracting Halon from high pressure vessels, putting it to MIL-M-12218C or ISO 7201 and pumping the purified halon into storage containers. Totally automated: user simply connects a vessel of contaminated halon to the unit, and the system automatically regulates input pressure for high pressure liquid, high pressure gas and low pressure gas. It automatically vents nitrogen and stops when the receiving container is full. A cascaded refrigeration system provides cooler temperatures as low as -100°F, to assure complete liquefaction of halon. At -60°F(-51°C), nitrogen gas is vented to atmosphere and clean halon is pumped into storage containers ready for future use. Nitrogen Removal: Cold Vented at -60°F(-51°C) Average Recovery Rate: 2-4 lbs/min (0.9-1.8 kg/min) Internal Capacity: 120 lbs (55 kg.) Maximum Input Pressure: 1000 PSIG Halon Recovery Efficiency: over 98% Dimensions: 38" W x 55" L x 66" H (965mm W x 1397mm L x 1676mm H) Weight: 1000 lbs (455kg) Acid Filter: 42 in³ (688 CM³) Moisture Filters: 84 in³ (1376 CM³) Moisture Indicator: Sight glass Particulate Retention: 98% of 1 micron (liquid), 98% of 0.4 micron (gas) Particulate Filter Indicator: Pops out when filter is full Halon Output Purity: 99.6 Mole % purity in liquid phase, 0.4 Mole % other halocarbons in liquid phase, 3.0 PPM (by weight) acids, 1 0.0 PPM (by weight) water, 1.5% (by volume) fixed gases in vapor phase Power Requirements: 205-225 VAG, single phase 60 Hz, 205-255 VAG, single phase 50 Hz, (400 VAC, 3 phase 50 Hz optional), 9.0 KW Maximum Power Load

MANUFACTURERS OF HALON RECYCLING, RECOVERY AND RECLAIM EQUIPMENT HALON MANAGEMENT SUPPORT SERIES

PRODUCT NAME	RECOVERY AND CONDITIONING FOR HALON (REACH)
SUPPLIER	Kidde International
	Belvue Road, Northolt
	Middlesex UB5 5QW
	United Kingdom
	Tel: (44) 181-845-7711
	Fax: (44) 181-845-4304
	Walter Kidde Aerospace, Inc.
	4200 Airport Drive, N.W
	Wilson, North Carolina 27893
	United States
	Tel: (1) 919-237-7004
	Fax: (1) 919-237-8533
	Email: hillmant@wkai-lan.mhs.compuserve.com
	http://www.walterkidde.com/product.htm
DETAILS	Not available

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HALON-1301



DEFENDER 2000/C-400 FRC International, Inc. 6150 Merger Drive Holland, Ohio 43528 United States Tel: (1) 491-867-8990 Fax: (1) 419-867-3279 Email: frc@norden1.com Not available

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PRODUCT NAME SUPPLIER FM 200/HALON1301 RECOVERY/RECYCLE 58940 Getz Manufacturing





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