

COMFORT VEST

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WARNING

Do not use this equipment until you have READ this MANUAL and YOU UNDERSTAND its contents. *

These WARNINGS are included for the health and safety of the operator and those in the immediate vicinity.

***If you are using a Clemco Distributor Maintenance and Parts Guide, refer to the orange warnings insert preceding the Index before continuing with the enclosed instructions.**

Electronic files include a Preface containing important information.

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1.0 INTRODUCTION

1.1 Scope

1.1.1 This manual covers the preparation, operation, maintenance, and replacement parts for Clemco's Comfort Vest. Before using the vest, read this manual and the manual for the temperature control (air heating / cooling) tube that is used with the vest. Pay special attention to Section 2.2 of this manual regarding the quality of compressed air used with the temperature control tube.

1.2 Safety Alerts

1.2.1 Clemco uses safety alert signal words, based on ANSI Z535.4-2011, to alert the user of a potentially hazardous situation that may be encountered while operating this equipment. ANSI's definitions of the signal words are as follows:



This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

NOTICE

Notice indicates information that is considered important, but not hazard-related, if not avoided, could result in property damage.

CAUTION

Caution indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

WARNING

Warning indicates a hazardous situation that, if not avoided, could result in death or serious injury.

DANGER

Danger indicates a hazardous situation that, if not avoided, will result in death or serious injury.

1.3 Description

1.3.1 The Comfort Vest uses compressed air supplied through an ancillary heating and/or cooling tube. When the vest and tube are connected to a compressed air source, conditioned air circulates throughout the vest and vents at several location on its inward side. The circulating air provides warm or cool relief to the wearer.

2.0 COMPRESSED AIR SUPPLY

The employer is responsible for ensuring that cited compressed air requirements are met.

2.1 Air Pressure and Volume

2.1.1 Refer to the temperature control tube operations manual for compressed air pressure and cfm requirements of the air tube.

2.2 Air Quality

2.2.1 Special care must be taken to avoid accidental connection to any lines other than compressed air; such as, oxygen, acetylene, or nitrogen.

WARNING

The requirement for Grade D air cited within this manual must be met when the vest is used with a respirator having a cape that extends over the vest, or any other containment that could permit air from the vest to be ingested by the user. For that reason, Grade D air or higher quality as defined below must be provided to both the respirator and vest. The requirement does not apply when the vest is used without a respirator or other containment where compressed air may be ingested by the wearer. Inhalation of toxic or oxygen deficient air could result in death.

2.2.2 Any air inhaled by the user must be respirable air meeting the requirements for Grade D or higher quality, as described in Compressed Gas Association Commodity Specification pamphlet G-7.1., titled Commodity Specification For Air, published by Compressed Gas Association Inc., Chantilly, VA. Website: www.cganet.com, (29 CFR 1910.134 (i)).

2.2.3 Limiting characteristics of Grade D air, as of the publication of this manual, is as follows:

Carbon Dioxide	maximum of 1000 ppm
Carbon Monoxide	maximum of 10 ppm
Odor	*No pronounced odor

Oil (hydrocarbons) maximum of 5 mg/m³

Oxygen between 19.5 - 23.5%

* Specific measurement of odor in gaseous air is impractical. Air may have a slight odor but the presence of a pronounced odor renders the air unsatisfactory.

3.0 INITIAL SET-UP

WARNING

The vest is intended to be worn over street clothing and under industry-approved protective clothing. The vest is made of 100% flame resistant fabric, but it is not fire proof, spark proof, or abrasive resistant; any and all protective clothing that is required for the application in which the vest is used, must be worn over the vest. Failure to wear proper protective gear could result in serious injury or death.

3.1 Put on the vest and outer-protective clothing (coveralls, blast suit, etc) to determine the best entry point for the vest's supply tubing. Jackets do not require set-up. If there is not an entry hole in the outer clothing, one will have to be made. Feel around the back at about waist height to find where the air tubing enters the vest. Mark the location and remove the outer clothing.

3.2 Make a small slit at the mark, large enough to pass the supply-tubing fitting.

3.3 Set-up the temperature control tube per the manufacturer's recommendations.

4.0 SET-UP and ADJUSTMENTS

4.1 Don the vest and adjust side straps. The front may be zippered or not. The heating or cooling effects are most noticeable when the vest fits snugly.

4.2 Put on protective clothing over the vest. Push the supply tubing through the opening in the clothing.

4.3 Connect the supply tubing to the temperature control tube and attach the tube and belt around the waist.

4.4 Adjust the temperature of the control tube per the manufacturer's instructions.

5.0 CARE and MAINTENANCE

5.1 Washing Instructions

5.1.1 Dry clean, machine wash with mild detergent. Do not use natural soap. Do not use bleach, starch, or fabric softener. For industrial laundries: Follow ASTM F1449-01 procedures for care of flame-resistant clothes.

5.2 Drying Instructions

5.2.1 The vest may be dried in a home or industrial dryer that does not raise fabric temperature above 280 degrees Fahrenheit.

6.0 ACCESSORIES and REPLACEMENT PARTS

6.1 Accessories, Temperature Control Tubes

Description	Stock No.
CAT Cool-air tube Provides cool air to the vest	04410
CCT Climate-control tube Provides cool or warm air to the vest	04411
CCAC Clem-Cool Air Conditioner Provides cool air to the vest.....	23825

6.2 Comfort Vest Assemblies

Description	Stock No.
Comfort vest with inlet tube and connector Does not include a temperature control tube	24854
Comfort vest w/CCT climate-control tube	24856
Comfort vest w/CCAC Clem-Cool air conditioner ..	25266

6.3 Replacement Parts

Description	Stock No.
Service kit, includes 1 ft. tubing, swivel connector with washer and clamp	24858
Tubing, inlet, specify feet required, (1 ft standard)..	25015
Connector, swivel	25016
Washer, connector, pack of six	04370
Clamp, self-lock tubing	25017