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2012

Refrigerant Recovery/Recharging Series

Portable Refrigerant Recovery/Recharging Unit

Light Commercial HVAC

Industrial Refrigeration System

Automotive Refrigerant Recovery/Vacuum/Recharge Machine





Profile

m° is a comprehensive hi-tech enterprise specialized in R&D, manufacture, sales of products in HVAC/R industry. factory locates in Kirin Industrial Park.

Ever since its establishment in 1990's, oddicates itself to domestic development and enjoy a good MIDEA.....

Working with the university professor with 20 years experience in HAVC-R, engineers, designers and technicians in the field, m° has consistently been able to provide the right solution products to assist your project and your service job—— Your Environmental Service Helper/Assistant

Global Partners











Green Life CM-Green Your Trustworthy Worldwide Partner







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Refrigerants: R410A R22 R134A R407C R404A R507A

Portable Refrigerant Recovery/Recharging Unit

Introduction

CM3000A adopts 1HP dual-cylinder high efficiency compressor -- 20%-50% quicker recovery rate than that of similar international products, especially for R410 high pressure refrigerants.

CM2000A incorporates 1/2HP high efficiency compressor that maximizes speed in both liquid and vapor recovery.

CM2000 incorporates 1/2HP oil-free compressor.

CM3000A / CM2000A / CM2000



Component



Convenience **Operation Panel**



Dual-Cylinder High **Efficiency Compressor**



Easy To Carry



Wear Resistant PU Wheel

Features

- ♦ Long time running sustainingly up to 24 hours
- ◆ Portability and Mobility- Ergonomic well balanced design with wheels and handle for All-Terrain;
- ◆ "Super Cool" fan and efficient condenser design provides fast speed in recovery, recharge and can handle high ambient temperatures;
- ◆ Multi-function valve design and multi-refrigerant capable with Self-Clearing feature, which prevents cross-contamination;
- ◆ Large filter outlay design, which is convenient for replacing;
- ◆ Optional Float Cable provides automatic shut off when tanks are 80% full;
- ◆ CM exceptional compressor, condensing & cooling systems allow fast recovery in high temperature
- ♦ R410A ready with 550 psi high pressure shut-off switch;
- 0 to 55 bar (800-psig) discharge gauge to handle R-410A;
- ◆ "SELF-CLEARING" valve. No need to turn off the unit when switching from the recovery to self-clearing;
- ◆ Pressure gauge measured in PSI & BAR;
- ◆ On board SUCTION and DISCHARGE gauges;

Specification

MODEL	OIL-FREE COMPRESSOR	Pull/Push Recovery Rate	Liquid Recovery Rate	Vapor Recovery Rate	Power
CM3000A	1HP Dual-cylinder Compressor(For all Refrigerants)	660kg/h	240kg/h	33.9kg/h	115V/60HZ, 220V/50HZ
CM2000A	1/2HP Oil-free & High efficiency compressor (For all Refrigerants)	500kg/h	156kg/h	21.8kg/h	115V/60HZ, 220V/50HZ
CM2000	1/2HP Oil-free compressor (For all Refrigerants)	385kg/h	120kg/h	16.8kg/h	115V/60HZ, 220V/50HZ

Included with Purchase(standard)

Recovery unit 1pc Filter Kit 1set Operating manual 1pc Certification of quality 1pc

P03 P04



CM8000 Light & Rapidly Full-Automatic Refrigerant Recovery System

Introduction

CM8000 is the new products promoted by CM in 2012 specially for Central A/C After Market. Its weight is ONLY 45KG, Dimension is 600*450*400mm. It is important Not only the light weight and small volume, but also its rapidly recovery rate. CM8000 integrate functions of liquid push/pull recovery, direct liquid recovery, vapour recovery, self-purge and oil separating and purify etc. Overall protection is its highlights as well including high & low pressure protection, current protection, temperature protection, liquid level protection etc. The comprehensive performance of CM8000 is absolutely excellent!



Refrigerants: R410A R22 R134A R407C R404A R507A

Features

- ♦ Light duty & high efficiency compressor, no lubricating oil pollution. capable of recovering all commonly used CFC, HCFC and HFC refrigerants including R410A;
- ♦ Air cooled condenser and oil-less compressor easy to use, avoiding connecting cooling water and adding oil to the compressor frequently;
- ◆ Light duty & small volume convenient to carry;
- Overall protection system safe credibility;
- ◆ Self-purging function no cross contamination and refrigerant waste;
- Outlay filter and high efficiency oil separator easy to change and fully purified refrigerant, ensure the quality of recovered refrigerant;
- ♦ Thoroughly recovery refrigerant, automatic stop once the recovery is up to -0.04Mpa

Component



Oil Separator



High Efficiency Tool Kit Four-Cylinder Compressor



High-Quality Accessories



Specification

MODEL	COMPRESSOR	Refrigerants	Vapor Recovery Rate	Pull/Push Recovery Rate	Power
CM8000	2HP oil-less	R410A/R22/ R134A etc	≤60KG/H	≤1300KG/H	380V/50HZ
CM8000A	3HP oil-less	R410A/R22/ R134A etc	≤80KG/H	≤1900KG/H	380V/50HZ

P05 P06





Introduction

Products in CM commercial series are universal for CFC/HCFC/HFC of high & low pressure refrigerants. With super power motor and high efficiency condenser, the recovery rate is very fast. Self-purging valve facilitates your next service process for different refrigerant recovery. No worry about the cross contamination. Operation is very simple.

Advantages

Performance has become a forefront of HVACR industry Meet ARI-700 standards Universal for CFC/HCFC/HFC of high&low pressure refrigerants 24-hour continuous working No need for special maintenance when recovery different refrigerants, just use self-purging function. No cross contamination

Included with Purchase(standard)

Recovery system 1set; Operating manual 1pc Certification of quality 1pc

Optional accessories

1/2" connecting hose(length is customizable) 3/8" connecting hose(length is customizable) 5/8" connecting hose(length is customizable) 3/4" connecting hose(length is customizable) **CM7000**



1/2" to 1/4" adapter 1/2" to 5/8" adapter 1/2" to 3/4" adapter 1/2" filter Cylinder (20L-1000L) customizable Float switch for cylinder (length of power cord is customizable)



Refrigerants:

R410A R22 R134A R407C R404A

Application

Transfer refrigerants on your job-site; Service chillers & other medium cooling systems; Small & medium central A/C factories;

On site maintenance of small & medium HVAC/R products

Features

Oil-free lubricating compressor – compatible with CFC/HCFC/HFC refrigerants;

Self-purging design - prevent cross contamination;

Multi-function valve design- simple operation;

Perfect protection system - safe credibility;

Thorough recovery refrigerant and automatic stop when the suction pressure is up to -0.04Mpa

Light weight - air cooled type only 160lbs, water cooled is much lighter





Specification

MODEL	OIL-FREE COMPRESSOR	Pull/Push Recovery Rate	Liquid Recovery Rate	Vapor Recovery Rate	Power	Working Temp.
CM5000	2HP Oil-free Compressor(For all Refrigerants)	48 lbs/min (1300kg/h)	8.81 lbs/min (240kg/h)	2.21 lbs/min (60kg/h)	380V/3P H/50HZ	0-50
CM6000	3HP Oil-free compressor(For all Refrigerants)	69.81 Ibs/min (1900kg/h)	11.02 lbs/min (300kg/h)	2.94 lbs/min (80kg/h)	380V/3P H/50HZ	0-50
CM7000	2HP Oil-free Compressor(For all Refrigerants)	48 lbs/min (1300kg/h)	8.81 lbs/min (240kg/h)	2.21 lbs/min (60kg/h)	220V/1P H/50HZ	0-50

Voltage(optional)

50Hz/3PH/380V	50Hz/3PH/400V	50Hz/1PH/220~240V	50Hz/3PH/415V
60Hz/3PH/380V	60Hz/3PH/380V	60Hz/3PH/440V	60Hz/3PH/440V

P07 P08







Refrigerants: R22

WFL16/WFL18/WFL36 SERIES FOR Industrial Refrigeration System

Introduction

WFL SERIES REFRIGERANT RECOVERY / RECHARGING SYSTEM

Product & Solutions in WFL large commercial and industrial series are universal for CFC/HCFC/HFC of medium & low pressure refrigerants. With super power motor and high efficiency condenser, the recovery rate is very fast.furthermore, operation is very simple



Advantages

Performance has become a forefront of the HVAC/R industry and meet ARI-700 standards; Universal for CFC/HCFC/HFC of medium & low pressure refrigerants;

24-hour continuous working;

No need for special maintenance when recovery different refrigerants, just evacuation. No cross contamination

High performance/price ratio - rapid investment return Maintenance is simple.



WFL36

Application

Transfer refrigerants; Service chillers & other large & medium cooling

systems below 2000/3000/10000 cooling ton; Large & medium central A/C factories; On site maintenance of lage & medium HVAC/R products



Specification

MODEL	COMPRESSOR	Vapor Recovery Rate	Push/Pull Recovery Rate	Working Temp.	Cooling Type	Hose
WFL16	5HP oil less	≤4.4 lbs/min	≤220 lbs/min	-10-60	Water Cooled	3/4"
WFL18	7.5HP oil less	≤6.6 lbs/min	≤330 lbs/min	-10-60	Water Cooled	3/4"
WFL36	15HP oil-filled	≤13.2 Ibs/min	≤660 lbs/min	-10-60	Air Cooled	3/4"

Features

Oil-free lubricating compressor - compatible with CFC/HCFC/HFC refrigerants

Fast recovery recharging rate for both liquid and vapor refrigerants

Multi-function valve design- simple operation in vapor and push/pull recovery

Perfect protection system – safe credibility;

Thorough recovery refrigerant and automatic stop when the suction pressure is up to -0.04Mpa

Easy to operate and convenient to move;

Perfect protection system- safe credibility;

Water/cooled design - Effective heat dissipation

For (WFL16:2000kg / WFL18:3000kg) cooling system, finish all the refrigerant recovery (WFL16: within 3 hours / WFL18: within 5 hours); for 10000kg cooling system, WFL36 finish all refrigerant recovery within few hours

Recovery/Recharging/Filling system 1set; Operating manual 1pc Certification of quality 1pc

Optional accessories

1/2" connecting hose(length is customizable)

3/8" connecting hose(length is customizable) 5/8" connecting hose(length is customizable)

Included with Purchase(standard)

3/4" connecting hose(length is customizable)

3/4" to 3/8" adapter

3/4" to 1/4" adapter

3/4" to 5/8" adapter

3/4" filter

Cylinder (20L-1000L) customizable

Float switch for cylinder

(length of power cord is customizable)

Voltage(optional)

50Hz/3PH/380V	50Hz/3PH/400V	50Hz/3PH/415V
60Hz/3PH/380V	60Hz/3PH/440V	60Hz/3PH/460V

P09 P10

Refrigerants: R410A R22 R134A R407C R404A





CM05 SERIES Automotive Refrigerant Recovery/Vacuum/Recharge System

Introduction

CM05 Series Automotive Refrigerant Recovery Recharge System is special for automotive production line & 4S Auto Shop. They integrate functions of refrigerant recovery, purify, vacuum and quantitative recharge. CM05 Series are oil-less compressor design--rapidly recovery rate & compatible with all commonly used refrigerants in CFC, HFC, HCFC.

Advantages

Oil free compressor – Maintenance free Capable of handling all kinds of refrigerants

Application

Automative 4S shops
On-site maintenance of small HVAC/R equipments.
Production line of air conditioning factories
and automative



Main Features

- Large wheels trolley design -- convenient for work site use;
- ♦ Integrate functions of recovery, recharge, reclaim & vacuum;
- ◆ Easy to eliminate the foreign matter and air mixing in refrigerant, guaranteeing the purity of refrigerant to make it able to be used repeatedly;
- Electronic measurement, accurate control, automatic stop after recovery and recharging complete;
- ♦ Oil-less compressor capable of handling of various kinds of common refrigerants;
- ♦ With protection function against over-voltage, overweight and overload;
- ◆ Large power oil separating device is available, easy and convenient to separate and ad oil;
- Fluorescence leak detection function and large power vacuum pump available;
- ♦ With 20kg tank, 40kg tank is also available;
- ◆ May made to measure according on the requirements of customers.

Specification:

Model	Compressor	Vacuum pump	Refrigerant	Recovery Rate	Oil Separator	Measure	Tank
CM0501	1/2HP Oil-less	120L/min	R12/R22/R134A /R407C etc	60-120kg/h	None	100kg±10g	20kg
CM0502	1/2HP Oil-less	120L/min	R12/R22/R134A /R407C etc	60-120kg/h	Yes	100kg±10g	20kg
CM0503	1HP Oil-less	120L/min	R12/R22/R134A /R407C etc	100-200kg/h	None	100kg±10g	40kg

P11 P12



Condenser/Heat Exchanger Tube Cleaner

CM-V Tube Cleaner (Trolley)

Introduction

Chunmu is one of the earliest factories in developing and manufacturing rotary tube cleaners. The CM-V is the third generation of the original rotary tube cleaner. All our rotary tube cleaning machines make tough tube cleaning a simple, one-person operation. They are ideal for cleaning tubes/pipes \emptyset 6.35mm- \emptyset 25.4mm (1/4"-1") I.D. in chillers, condensers, evaporators, absorption machines and heat exchangers etc.

Characteristics:

Professional equipment - no damage to pipe.

Simple to operate-minimal training required.

Stainless steel construction - long life.

Quickly connect and disconnect the flexible shaft-no tools required.

Interchangeable cleaning tool - versatile.

Large wheels-easy to move.



Specification:

Model	Motor	Pipeline diameter	Length of flexible shaft	Speed	Weight
CM-II	1/2HP	1/4"-1"	3.7m-22.9m	860/1420rpm	12kg
CM-V	1/2HP	1/4"-1"	3.7m-22.9m	860/1420rpm	30kg



CM-II/III Tube Cleaner (Portable)

Characteristics:

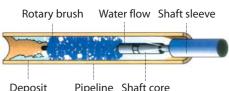
Smaller volume, lighter weight.

A full set of tube cleaner including:

Application: for central air conditioner of Carrier, York, Trane etc A hose, 12mm flexible shaft, Nylon brushes (diameter 6.4mm-25.4mm optional) Brass brushes (diameter 12.7mm-25.4mm optional)

A set of flexible shaft maintenance components (Optional)





Deposit Pipeline Shaft core





Before Cleaning

After Cleaning

Optional parts specifications:

Flexible shaft: 6mm flexible shaft (standard length 3.7m) is suitable for pipe diameter 6.4mm-9.5mm)

10mm flexible shaft (standard length 7.6m) is suitable for pipe diameter 11.1mm-25.4mm)

12mm flexible shaft (standard length 7.6m) is suitable for pipe diameter 12.7mm-25.4mm)

Any special requirements, please feel free to contact us.

Brushes: (Nylon brush/brass brush/stainless brush)6.4mm, 7.9mm, 9.5mm, 12.7mm, 14.3mm, 15.9mm, 17.5mm, 19.1mm, 20.6mm, 22.2mm, 23.8mm, 25.4mm

Flexible shaft maintenance components: power end connector(4 pieces), brush connector (4 pieces), crimping tool (1 piece), anti-rust lubricant (1 bottle), oil gun for smoothing flexible shaft (1 set).

P13 P14



Central Air Conditioning Oil Pump

Introduction

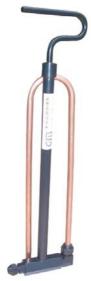
The oil pump is easy to use, overcoming traditional refuel shortcoming of easily mixing air. During refueling process, there is no need to drop the system's refrigerant, saving costs and simplifying the working procedure. It is mainly suitable for York, Carrier, Trane and Macquay systems etc.

Characteristics:

easy to operate and convenient to carry; professional tools, efficiency to fill the oil; Special design, avoid mixing air

Parameters

Model	Pressure	Speed	Weight
СМ-ОР	2.5MPA	0.1L / time	1.2kg



Refrigerant Recovery Tank

Features:

gas-liquid valve design, with added design such as non-condensable gas discharge connector, safety valve, liquid level switch connector

Specification:

20L/40L/100L/400L/800L(Made to order for special specifications)

Application:

R22/R1334A/R410A etc



Filter Drier



Recovery-Service - Piercing Plier



Ball-Valve Core Removal Tool



Flexible Hose



Manifold Gauge Set



P15 P16