

# MASTERCool 69000-220 REFRIGERANT RECOVERY SYSTEM (1/2 HP) W/O 80% SHUT OFF (220V/50-60HZ)

## REFRIGERANT RECOVERY SYSTEM



These recovery systems are compact, lightweight and work with all refrigerants. They're ideal for commercial, residential or industrial appliance applications. Our recovery systems offer a state-of-the-art 1/2 HP oil-less compressor with a built-in high volume cooling fan. This innovative design delivers maximum cooling efficiency which keeps the compressor working at high capacities in even the hottest climates. The compressor is also protected by an automatic low pressure cut-off switch that shuts off the unit once the recovery is complete. This AUTO SHUT-OFF feature eliminates the risk of compressor failure and reduces the user's need to monitor the entire recovery system.

All of our recovery systems offer our color-coded gauges with pressure readings in PSI, BAR and MPa. Our stainless steel ball valve designed manifold, controls the flow smoothly and quickly with only a 1/4 turn. With all of this protected by a reinforced hard plastic case, Mastercool's recovery systems will meet all your refrigerant recovery needs.

### FEATURES:

- High performance oil-less compressor
- Automatic low pressure Cut-Off Switch
- Safety high pressure Cut-Off Switch
- High volume cooling fan design
- Liquid compatible head-valve system
- Fully reinforced hard plastic casing

### SPECIFICATIONS:

- 1/2 HP oil-less compressor
- Recovery Rate:
  - direct vapor up to 12 kg/h
  - direct liquid up to 71 kg/h
  - push-pull up to 326 kg/h
- Operating Temp. Range: 0 to 50°C (32 to 122°F)
- Weight: 16 kg (38 lbs)
- Dimensions: 432 mm (l) x 254 mm (w) x 305 mm (h) (17" (l) x 10" (w) x 12" (h))
- Refrigerants: CFC's, HCFC's, HFC's



•Recovery Rate: Direct vapor up to .44 lb/m, Direct Liquid up to 2.62 lb/m, Push-Pull up to 12 lb/m

## REFRIGERANT RECOVERY TIME (SPEED) CALCULATION

- Recovery Rate:
  - direct vapor up to 12 kg/h
  - direct liquid up to 71 kg/h
  - push-pull up to 326 kg/h

- Recovery Rate:
    - Direct vapor up to .44 lb/m,
    - Direct Liquid up to 2.62 lb/m, Push-Pull up to 12 lb/m
- lb to Kg = 2.62 lb / 2.2046 = 1.188 kg

$$\frac{12 \text{ kg}}{60} = 0.2 \text{ kg/min}$$

$$\frac{71 \text{ kg}}{60} = 1.18 \text{ kg/min}$$

$$\frac{326 \text{ kg}}{60} = 5.43 \text{ kg/min}$$

$$\frac{12,000 \text{ g}}{60} = 200 \text{ g/min}$$

$$\frac{71,000 \text{ g}}{60} = 1,183 \text{ g/min}$$

$$\frac{326,000 \text{ g}}{60} = 5,433 \text{ g/min}$$

### Example No. 1 (Direct Vapor) (By kg) :

- 1) System Gas Amount = 0.5 kg
- 2) Recovery Time = 0.5 kg / 0.2 kg/min = 2.5 min / 60 = 0.0417 hrs

### Example No. 2 (Direct Vapor) (By gram) :

- 1) System Gas Amount = 2,800 grams
- 2) Recovery Time = 2,800 g / 200 g/min = 14.0 min / 60 = 0.2333 hrs

### Example No. 3 (Direct Liquid) (By kg) :

- 1) System Gas Amount = 5.0 kg
- 2) Recovery Time = 5.0 kg / 1.18 kg/min = 4.237 min / 60 = 0.0706 hrs

### Example No. 4 (Direct Liquid) (By gram) :

- 1) System Gas Amount = 5,500 grams
- 2) Recovery Time = 5,500 g / 1,183 g/min = 4.649 min / 60 = 0.0775 hrs