

# DuPont Refrigerants

## Refrigerant Recovery Procedures

### Safe Recovery Process and Recovery Cylinders

1. Select the appropriate pressure-rated recovery cylinder relative to the refrigerant you are recovering from the system.
2. Ensure that the recovery equipment including manifold gauge set, recovery cylinder, hoses, and connectors are rated for the refrigerant that you are recovering and you have an accurate scale.
3. Inspect the recovery container and valve for signs of damage such as dents or corrosion before using, and confirm that the cylinder is within the 5-year certification date.
4. Weigh the empty recovery cylinder on an accurate scale assuring that the cylinder is free standing on the scale with no restrictions due to recovery equipment.
5. Monitor the pressure during the filling step. Do not exceed maximum service pressure of the recovery cylinder that is stamped on the cylinder collar or shoulder.
6. Monitor gross weight during the filling step. Do not fill cylinder to more than 80% liquid full at 77°F. **Never overfill the recovery cylinder.**
7. Shut off valve if maximum gross weight or service pressure is reached.
8. Once recovery is completed, close the cylinder valve completely.
9. Weigh filled cylinder as final checkpoint.
10. Tag the cylinder by identifying the refrigerant content to avoid mixing refrigerants in the same recovery cylinder.

### NOTES

1. Do not mix refrigerants into the recovery cylinder except these that can be combined. All other refrigerants must be stored separately:
  - Suva® 404A and 507 can be combined
  - Suva® HP80 and HP81 can be combined
  - Suva® MP39 and MP66 can be combined
2. Do not fill an empty recovery cylinder if the present date is more than 5 years past the test date that is stamped on the shoulder of the cylinder.
  - It is acceptable under DOT guidelines to transport a filled recovery cylinder if the 5-year certification date has expired if the recovery cylinder was filled within the certification time period.
  - Exercise caution when moving filled recovery containers. Use proper cylinder handling procedures: avoid dropping, denting or damaging of cylinder.

### Personal Safety Guidelines

- Use personal protective equipment including safety glasses with side shields, gloves, and safety shoes when filling and handling recovery containers. Use a hard hat if required for the work area.
- Avoid skin contact with liquid refrigerant because it can cause frostbite.
- Because refrigerant vapor is heavier than air, if leaked it will concentrate in low areas. Avoid these areas unless proper ventilation is provided.
- Avoid inhalation of refrigerant vapor. Be aware that inhalation of high concentrations of refrigerant vapor is harmful and may cause heart irregularities, unconsciousness, or death.
- Recovered refrigerant will typically contain some amount of oil, which can appear as a “white cloud or fog” during recovery. Do NOT breathe oil mist if it should be emitted during the recovery process.
- Review the product MSDS at [refrigerants.dupont.com](http://refrigerants.dupont.com) for more complete safety information.



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## Do Not Overfill the Recovery Cylinder

- Liquid refrigerant will expand as its temperature is increased. If the cylinder somehow becomes completely full of liquid, the pressure can increase dramatically with a relatively small increase in temperature.
- Typically the cylinder should not be filled to more than 80% liquid full at 77°F. Another guideline is to not exceed the gross weight (total weight of the container and its contents). Refer to the DuPont Recovery cylinder fill weights below as a guide. Weights can vary by recovery cylinder manufacturer. Please reference recovery cylinder manufacturer for your specific recovery cylinder fill weights.

## DuPont Recovery Cylinder Fill Weights

Size	Pressure Rating	Max Gross Weight*	Max Refrigerant Weight	Water Capacity	Tare Weight**
Half-ton	4BW260	1,160	800	1,000	360
Half-ton	4BA400	1,360	800	1,000	560
125 lb.	4BA300	150	100	123	55
125 lb.	4BA400	150	100	123	62
50 lb.	4BA350	64	38	48	26
50 lb.	4BA400	64	38	48	26
30 lb.	4BA350	34	20	26	14
30 lb.	4BA400	34	20	26	14

\* includes tare and refrigerant weight

\*\*tare weights are estimates and may vary by cylinder manufacturer

## Refrigerant Recovery Container Type

400 PSI cylinder requirements highlighted in yellow

Refrigerant (ASHRAE #)	Class	30/50 lb. Cylinder	125 lb. Cylinder	Half-ton
R-22	HCFC	4BA350	4BA300	4BW260
MO99 (R-438A)	HFC	4BA350	4BA300	4BW260
MO29 (R-422D)	HFC	4BA350	4BA300	4BW400
MO59 (R-417A)	HFC	4BA350	4BA300	4BW260
MO79 (R-422A)	HFC	4BA350	4BA300	4BW400
MO49 Plus	HFC	4BA350	4BA300	4BW260
R-134a	HFC	4BA350	4BA300	4BW260
MP39 (R-401A)	HCFC	4BA350	4BA300	4BW260
MO66 (R-401B)	HCFC	4BA350	4BA300	4BW260
HP80 (R-402A)	HCFC	4BA400	4BW400	4BW400
HP81 (R-402B)	HCFC	4BA400	4BW400	4BW400
R-404A/R-507	HFC	4BA350	4BA300	4BW400
R-407A/R-407C	HFC	4BA350	4BA300	4BW400
R-408A	HCFC	4BA350	4BA300	4BA400
R-409A	HCFC	4BA350	4BA300	4BW260
R-410A	HFC	4BA400	4BW400	4BW400
Suva® 95 (R-508B)	PFC	3AA1800 up to 84 lbs.		–

4BA/W400 = 400 PSI maximum operating pressure

4BA300 = 300 PSI maximum operating pressure

4BW260 = 260 PSI maximum operating pressure

[refrigerants.dupont.com/manage22](http://refrigerants.dupont.com/manage22)  
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