

# REFRIGERANT RECOVERY CYLINDER FILL CALCULATION TOOL

This tool is based on calculations from AHRI Guideline K-2024 and refrigerant Specific Gravity (SG) values at 77°F to simplify calculations when filling refrigerant recovery tanks to 80% of internal volume.

Information needed:

WC (Water Capacity) value from the recovery cylinder

TW (Tare Weight) value from the recovery cylinder

To find **maximum allowable gross cylinder weight** use:  $(\text{Refrigerant Multiplier} \times \text{WC}) + \text{TW}$

To find **maximum refrigerant weight contained in cylinder** use:  $\text{Refrigerant Multiplier} \times \text{WC}$

If a refrigerant is not included on this list and the 77°F SG is known,  
**maximum allowable gross cylinder weight** may be calculated by using the formula:

$$(0.8 \times \text{WC} \times \text{SG}) + \text{TW}$$

Refrigerant Type	Refrigerant Multiplier
R-22	0.9528
R-32	0.7688
R-134a	0.9656
R-404A	0.8360
R-407C	0.9104
R-410A	0.8472
R-417A	0.9216
R-417C	0.9440
R-422A	0.9088
R-422B	0.9224
R-422C	0.9160
R-422D	0.9152
R-437A	0.9432
R-438A	0.9176
R-448A	0.8776
R-449A	0.8784
R-454A	0.8192
R-454B	0.7896
R-454C	0.8360

*This information is for use only by professional HVACR technicians with knowledge of and training on refrigerant recovery practices.  
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*Refrigerant density values courtesy of Chemours Company*