YELLOW JACKET®

R-410A, Mini Splits and Flaring



There are two big reasons to brush up on your flaring techniques—mini split air conditioners and R-410A.

Mini split A/C units are becoming more and more popular, and a large majority of the units use a flaring method to join the refrigerant tubes that connect the indoor and outdoor units. More specifically, flares are required on each end of the line set to connect the evaporator and condenser.

Since R-410A is a much higher pressure than older refrigerants, mini split manufacturers often require a larger diameter, deeper flare to produce stronger joints. While the angle of an R-410A flare is the same as a

standard flare, it needs more surface for more area to seal against the flare fitting. This higher collar flare will work in all systems, not just R-410A.

The size of the flare is determined by how much tubing is pushed through the flare block, so if you're using a tool like the YELLOW JACKET Eccentric Cone Flaring Tool (60295), be sure to check the manufacturer's height requirements for R-410A.

To take the guesswork out of the height, use a flaring tool specifically designed for R-410A, such as the YELLOW JACKET Deluxe 45° Flaring Tool (60278). It features a built-in height stop that helps you meet larger R-410A flaring requirements without the guesswork.

Maximum Diameter of Flare Cone (Average)

Flare size	SAE Spec produced by most flaring tools	Some R-410A mfgr. specs produced by 60278
1/8"	0.181"	*
3/16"	0.248"	*
1/4"	0.327"	0.358"
5/16"	0.406"	*
3/8"	0.488"	0.520"
1/2"	0.622"	0.654"
5/8"	0.748"	0.776"
3/4"	0.917"	0.945"

* These tube sizes are not used by some R-410A equipment manufacturers. The Deluxe Flaring Tool 60278 adopts the SAE standard for these sizes.

Typical R-410A Flaring Requirement

	Copper pipe dia.		Dimension "A" (mm)
	Liquid side	ø6.35	9.1
	Gas side	ø9.52	13.2
V		ø12.7	16.6

Dimension "B"
Flare tool bar Copper pipe
copper pipe

Copper pipe dia.	Dimension "B" (mm)	
	Clutch type flare tool for R410A	
ø6.35	0.0 ~ 0.5	
ø9.52	0.0 ~ 0.5	
ø12.7	0.0 ~ 0.5	

YELLOW JACKET Flaring Tools

UPC#	
60278	Deluxe 45° Flaring Tool
60295	Eccentric Cone Flaring Tool

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