

# Technical Bulletin

Number	087
Subject	Using Mitsubishi Electric M Series and Mr. Slim condensing units with existing pipe-work
Date	June 2013

This document has been prepared by Logicool Air Conditioning Distribution Limited and is based on existing Mitsubishi recommendations for using pipe sizes different to those advertised, and standard industry guidelines for retrofits.



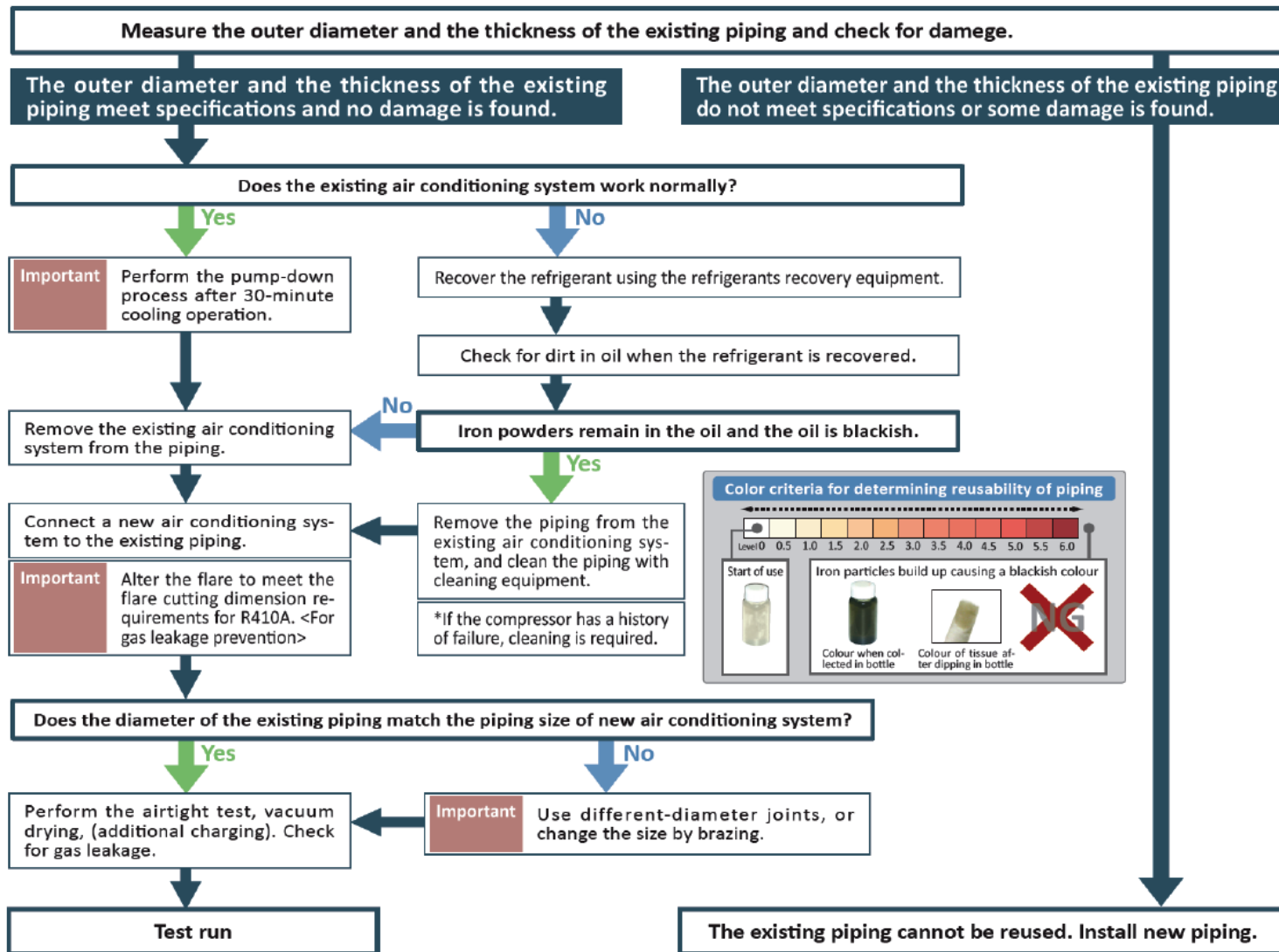
New M Series, Mr Slim Standard Inverter and Mr. Slim Power Inverter condensing units launched 2013 with improved SEER's and greater system flexibility can also be used with different pipe sizes to those advertised. These systems are compatible with those installations that have been operating with R22 or R407C.

If utilising existing pipe-work, the recommendations and notes below should be observed.

This allows installing the Outdoor Units, which operate with R410A, without having to change the piping installation.

The existing pipe-work needs to be clean, devoid of any contaminants and have traces of mineral oil lower than 3% of previous system capacity. Ensure that the system is run in test cooling for one hour to recover as much oil from the indoor unit and pipework as possible. It is also advised that the system is pressure tested to manufacturers' recommendations and a triple vacuum.

## Mitsubishi Flow Chart



## Mitsubishi M Series

Liquid pipe	OD	¼"			⅝"
	Thickness	0.8			0.8
Gas pipe	OD	⅝"	½"	⅝"	⅝"
	Thickness	0.8	0.8	1	0.8
MUZ-25		⊙ 20m	○ 20m	X	X
MUZ-35		⊙ 20m	○ 20m		X
MUZ-50		X	⊙ 30m	X	X
MUZ-60		X	X	⊙ 30m	X
MUZ-71		X	X	X	⊙ 30m

⊙ Standard size

○ Can be used

## Mitsubishi Mr Slim Standard Inverter Models

Liquid pipe	OD	¼"			⅜"			½"	
	Thickness	0.8			0.8			0.8	
Gas pipe	OD	⅜"	½"	⅝"	½"	⅝"	¾"	⅝"	¾"
	Thickness	0.8	0.8	1.0	0.8	0.8	1.0	0.8	0.8
SUZ-KA35		⊙ 20m	○ 20m	X	X	X	X	X	X
SUZ-KA50		X	⊙ 30m	X	X	X	X	X	X
SUZ-KA60		X	X	⊙ 30m	X	X	X	X	X
SUZ-KA71		X	X	X	X	⊙ 30m	X	X	X
PUHZ-P100		X	X	X	X	⊙ 50m	○ 50m	△ 25m	△ 25m
PUHZ-P125		X	X	X	X	⊙ 50m	○ 50m	△ 30m	△ 30m
PUHZ-P140		X	X	X	X	⊙ 50m	○ 50m	△ 30m	△ 30m

Liquid pipe	OD	⅜"			½"			⅝"		
	Thickness	0.8			0.8			0.8		
Gas pipe	OD	¾"	⅞"	1⅛"	¾"	⅞"	1⅛"	⅞"	1⅛"	1⅝"
	Thickness	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PUHZ-P200		X	□ 50m	⊙ 70m	X	△□ 50m	○ 50m	△□ 40m	△ 40m	△ 40m
PUHZ-P250		X	□ 50m	○ 70m	X	□ 50m	⊙ 70m	△□ 45m	△ 45m	△ 45m

Note : be sure to use hard drawn pipe for ⅞" & over.

- ⊙ Standard size
- Can be used
- Cooling capacity is lowered
- △ Additional charge is required when exceeds 20m

## Mitsubishi Mr Slim Power Inverter Models



Liquid pipe	OD	1/4"			3/8"			1/2"	
	Thickness	0.8			0.8			0.8	
Gas pipe	OD	3/8"	1/2"	5/8"	1/2"	5/8"	3/4"	5/8"	3/4"
	Thickness	0.8	0.8	1.0	0.8	0.8	1.0	0.8	0.8
PUHZ-RP35	□ 30m	⊙ 50m	○ 30m*2	△ 30m	△ 30m*2	X	X	X	X
PUHZ-RP50	□ 10m*1	⊙ 50m	○ 30m*2	△ 30m	△ 30m*2	X	X	X	X
PUHZ-RP60	X	□ 10m	○ 10m	□ 30m	⊙ 50m	X	△ 30m	X	X
PUHZ-RP71	X	□ 10m	○ 10m	□ 30m	⊙ 50m	X	△ 30m	X	X
PUHZ-RP100	X	X	X	X	⊙ 50m*3	○ 50m	△ 50m	△ 50m	△ 50m
PUHZ-RP125	X	X	X	X	⊙ 50m*3	○ 50m	△ 50m	△ 50m	△ 50m
PUHZ-RP140	X	X	X	X	⊙ 50m*3	○ 50m	△ 50m	△ 50m	△ 50m

Liquid pipe	OD	3/8"			1/2"			5/8"		
	Thickness	0.8			0.8			0.8		
Gas pipe	OD	3/4"	7/8"	1 1/8"	3/4"	7/8"	1 1/8"	7/8"	1 1/8"	1 3/8"
	Thickness	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PUHZ-RP200	□ 20m	□ 50m	⊙ 120m	□ 20m	□ 50m	○ 120m	△ □ 50m	△ 50m	△ 50m	△ 50m
PUHZ-RP250	□ 20m	□ 50m	○ 120m	□ 20m	□ 50m	⊙ 120m	△ □ 50m	△ 50m	△ 50m	△ 50m

\*1. RP50 : max pipe length is 10m.

\*2. Change the SW8-1 to ON

\*3. Max length is 75m in the case of new pipes.

⊙ Standard size

○ Can be used

□ Cooling capacity is lowered

△ Additional charge is required when exceeds 10m

Note : be sure to use hard drawn pipe for 7/8" & over.