

Purpose: To determine the Polyarc (PA) System and Polyarc Reactor configuration required for a customer with a Shimadzu 2014/2030 GC.

Note: It is important to select the correct system and reactor configuration to ensure compatibility with a specific GC.

The Polyarc System may include the Polyarc Reactor, an Electronic Flow Controller (EFC), Temperature Controller, and a Spare Polyarc Reactor (a replacement reactor for the shelf to reduce downtime). **The system configuration determines what additional equipment is needed to supply the reactor with air, hydrogen, and power for the heater. The Polyarc Reactor configuration is the physical enclosure required for the reactor. This includes where it will be installed on the GC, the column connection type, and the resistance temperature detector (RTD) type.**

Note: There are two versions of the Polyarc Reactor, the standard version and the Polyarc Ultra. The Polyarc Ultra has an enhanced flow path with ultra-inert coating and optimized internal geometry to allow for minimal peak broadening. The standard Polyarc does not broaden peaks more than 5-10%. A Polyarc Ultra would be used if a customer has an analyte closely eluting to their solvent peak. This becomes more important if the solvent has significant tailing, such as toluene. (See "PA vs. PA Ultra Overview.pdf" in the Partner Portal for more information.)

Instructions: To follow you will find two configuration steps. Step 1 for the Polyarc System and Step 2 for the Polyarc Reactor. Each step has specific questions that will guide you to the appropriate configuration setup. Read the questions in order. Then select from the "if" statements, located below the question, the appropriate response and go to the instructed question. Stop once a Polyarc System configuration is determined.

Call the ARC team at 612-444-3626 with any questions on compatibility.

Step 1. Polyarc System Configuration

In order to pair with the Shimadzu 2014/2030 GC, it is required to have both an ARC EFC and Temperature Controller. The Polyarc System configuration will have to be PA-SYS-ETC or for the Polyarc Ultra, PA-SYS-UET.

Polyarc and Polyarc Ultra System Configuration Scenarios

Shimadzu 2014/2030 GC with Polyarc		Include ARC EFC?		Shimadzu 2014/2030 GC with Polyarc Ultra		Include ARC EFC?	
		Yes	No			Yes	No
Include Temp. Controller?	Yes	PA-SYS-ETC	N/A	Include Temp. Controller?	Yes	PA-SYS-UET	N/A
	No	N/A	N/A		No	N/A	N/A

Step 2. Polyarc Reactor Configuration

The Polyarc Reactor configuration will be PA-SUB-43S for a standard capillary Polyarc and PA-RRC-A9U for the capillary Polyarc Ultra.