

The following pages contain the various components required to design a custom shower system. Use the steps below as a guide to select appropriate components.

## 1 Choose Spray Outlets

Indicate total number of sprays desired.



Indicate type of sprays:

- Body/side spray
- Overhead fixed showerheads
- Hand-held showers



## 2 Choose a Mixing Valve & Trim

(Based on number of sprays desired)

Thermostatic Control Rough Valves		Max Sprays*
R510	Central (1/2" inlets/outlets)	4
R530	Central (3/4" inlets/outlets)	6
R520	2-Handle (1/2" inlets/outlets)	3

\*Indicates maximum number of sprays that can be on at one time.

### Trim Options:

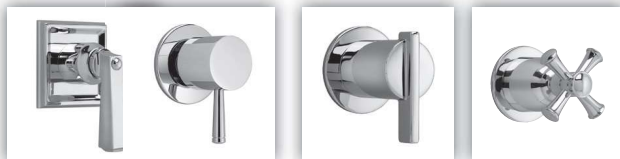
See pages 464-465 for all trim options.



## 3 Choose Appropriate Trim

### Trim Options:

See pages 464-465 for all trim options.



On/Off Volume Control Rough Valves	
R701	1/2" Volume Control Valve
R711	3/4" Volume Control Valve
Diverter Rough Valves	
R422	2-Way Diverter Valve – Discrete
R422S	2-Way Diverter Valve – Shared
R433	3-Way Diverter Valve – Discrete
R433S	3-Way Diverter Valve – Shared

Must use separate volume control to control on/off function.

## 4 Select Suitable Accessories

See pages 473, 485-486.



See pages: 480-485 for shower system kits, 491-493 for pre-designed systems

# Custom Shower System – Worksheet

Water Pressure (psi) in your client's home:

 (psi)

Showering Options

**1** Determine what types of Spray Outlets your client wants

**3** Identify what Water Control Valves are needed to control the spray outlets

\*Use the wall valve flow rate chart below to identify the appropriate control valve for each spray outlet

Qty.	Spray Outlet	x	gpm	=	Required gpm	Qty	Control Valve*
_____	Showerhead	x	2.5	=	_____	_____	_____
_____	Hand shower set	x	2.5	=	_____	_____	_____
_____	Hand shower on adjustable bar	x	2.5	=	_____	_____	_____
_____	Body sprays ( _____ sets of _____ )	x	2.5	=	_____	_____	_____
_____	Wall tub spout	x	_____	=	_____	_____	_____
_____	_____	x	_____	=	_____	_____	_____

**2** Identify how many and what type of mixing valve(s) are needed to support the shower system\*\*

Total Flow Rate Requirement \_\_\_\_\_ gpm

\*\*Use the mixing valve flow rates chart below to identify how many valves are needed for the system

At  psi,  \_\_\_\_\_ Mixing Valve(s) is needed to support the shower system  
Type of mixing valve

## Flow Rate Charts

### Control Valve Flow Rates

### Mixing Valve Flow Rates

Water Pressure (psi)	Toggle Between Spray Outlets		Individual On/Off Control of Spray Outlets		Toggle Between Spray Outlets		Individual On/Off Control of Spray Outlets	
	2-3 Way Diverter R422S/R433S	1/2" On/Off R701	3/4" On/Off R711	Pressure Balance Mixing Valve R111/R121	1/2" 2-Handle Thermostatic Mixing Valve R520	1/2" Central Thermostatic Mixing Valve R510	3/4" Central Thermostatic Mixing Valve R530	
20	6.3 gpm	7.0 gpm	10.0 gpm	3.0 gpm	4.1 gpm	8.0 gpm	14.0 gpm	
40	9.0 gpm	10.0 gpm	13.0 gpm	4.0 gpm	5.9 gpm	9.5 gpm	16.0 gpm	
60	10.9 gpm	11.0 gpm	15.0 gpm	4.5 gpm	7.3 gpm	10.5 gpm	17.0 gpm	
80	12.5 gpm	12.5 gpm	16.0 gpm	5.5 gpm	8.5 gpm	12.0 gpm	18.0 gpm	