BRIZO

CUSTOM SHOWER *Guide*

Ultimate *SERENITY*

Brizo® custom showers provide the ultimate luxury experience. With a range of custom shower systems, components and enhancements—creating a personalized space is only the beginning.

Providing a consistent, luxurious shower requires careful planning. This custom shower design guide provides the information needed to create a truly personal and unique shower experience. Use this guide to help clearly envision the shower experience and design to bring the space to life.

TABLE *of* CONTENTS

SECTION 1

Define Your VISION

VISUALIZE *the* EXPERIENCE

A Brizo® custom shower is the epitome of luxury. Relaxing, refreshing and invigorating—it's an extension of the overall bath experience. It's a personal retreat, a tranquil sanctuary, an invigorating awakening.
Use the below questions to help define the vision and overall desired experience of your custom shower.

Who will use the shower and what is their ideal experience?

What time of day do they shower and what experience do they want during those specific moments? Adding a variety of shower components can provide a truly custom shower experience.

Installing two systems allows for unique, personalized experiences—from varying showering components and placement, to different spray patterns and technologies.

Adding a tub to your custom shower design or creating a wet room to incorporate a freestanding tub is perfect for those looking for a relaxing retreat or for anyone with children.

What type of organization or conveniences do you need or want?

Consider storage options for showering products. Built-in storage shelves allow you to maximize the shower space, especially if the space is smaller, and are the perfect solution to keep products off of the shower floor.

Adding a bench, grab bars, a ledge or other ADA compliant provisions allow for not only an added level of comfort and relaxation, but also added safety. Be sure to position them near components that flow water so users have a comfortable shower experience.

Is there enough space to add towel bars or robe hooks? Adding accessories to the shower is a great way to maximize the bathroom space, but also adds a luxurious touch to the overall shower experience.

What does the ideal shower look like?

How many walls are there or will there be? Taking this into consideration will help you understand the shower structure and size, which is crucial to ensure all components fit comfortably within the space.

Where is the entrance/door to the shower? Be sure to position shower components that flow water away from that direction.

Consider the placement of the shower valve, diverter or volume controls so they can be easily reached outside of the shower.

Shower Components

From the finest details to the most revolutionary technologies, every facet of each Brizo® shower component plays a role in reinventing the luxury shower. And our commitment to sustainability impacts everything we do, which is why Brizo® water-efficient products are available throughout all collections, including water-efficient 1.75 gpm showerheads and 1.0 gpm body sprays. A wide range of shower components offer the flexibility to suit any design aesthetic and provide the desired water experience.

SHOWERHEADS

Set the tone and experience of a signature shower space by selecting the ideal showerhead. A wide variety are available, including wallmount models with or without multiple spray settings, or larger overhead raincan models.

Explore available styles

HANDSHOWERS

Whether anchored with a wall mount or installed on a slide bar for increased flexibility, handshowers add both functionality and style. A range of styles and configurations with or without multiple spray settings, as well as ADA-compliant models featuring pause capability for added safety are available.

Explore available styles

HYDRATI® 2|1 SHOWERS

Hydrati® 2|1 Handshowers feature a showerhead design with an integrated handshower, eliminating the need to install another rough in order to add a handshower. The detachable handshower can run separately from, or simultaneously with the showerhead, and is seamlessly held in place using MagneDock® Technology.

Explore available styles

SHOWER ARMS

Shower arms provide functional benefits while adding style to the space. From graceful curves to distinctive twists, each detail is designed to coordinate elegantly with specific Brizo collections, and varying lengths are available to accommodate different user height and shower designs.

Explore available styles

Shower Components

BODY SPRAYS

The HydraChoice Max® Body Spray System offers the clean lines of a flush mount body spray with maximum flexibility and functionality. The spray heads extend automatically when water is turned on and can be adjusted 50 degrees in any direction, allowing you to accommodate varying user heights and aim the water exactly where it's wanted. And when the shower is over, a simple push returns them to their original position.

Customize the experience even further with four easily interchangeable spray head options: Invigorating, Massaging and Soothing with H_2Okinetic technology and a full spray option with Touch-Clean® nozzles. The H_2Okinetic spray heads are self-cleaning due to the unique wave pattern of the water.

Touch-Clean body sprays are mounted to the shower surface and do not require roughs and are available in both round and square trim styles. A light touch is all it takes to wipe away calcium and lime buildup—and protect the beauty of the shower.

Explore available styles

TUB SPOUTS

Tub spouts and faucets are available in a variety of styles to coordinate seamlessly with shower components and trims in tub-and-shower combination designs.

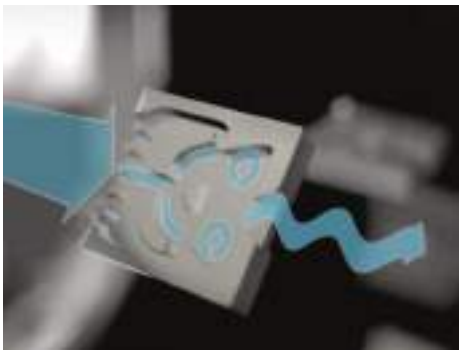
Diverter Tub Spouts are available for tub and shower designs. Non-Diverter Tub Spouts can be paired with a valve trim and used as a tub only option, plumbed off of the main valve or within a custom shower design, plumbed to the diverter or the volume control, depending on the system.

Explore available styles

H_2OKINETIC® TECHNOLOGY

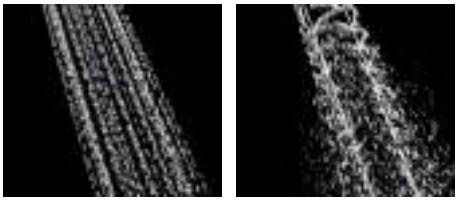
H_2Okinetic Technology is the study of water in motion. By controlling water's shape, velocity and thermal dynamics, we've reinvented how you shower—creating a warmer, more luxurious spray that gives the feeling of a high-flow shower with a fraction of the water. H_2Okinetic Technology is available on a wide selection of handshowers, showerheads and body sprays across all Brizo® bath collections.

H_2Okinetic Technology harnesses the natural energy of water and directs it through hundreds of specially engineered chambers in the showerhead.



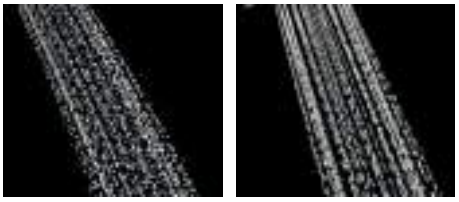
Each channel creates an oscillating vortex that sculpts cascading water into a wave pattern to provide a dense, concentrated spray.

H_2OKINETIC® TECHNOLOGY RESULTS IN:



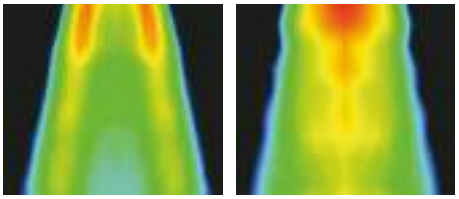
1 **Larger Droplets**

Larger water droplets offer a more massaging shower.



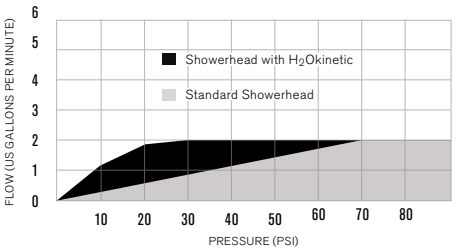
2 **Larger Spray Coverage**

A dense shower spray offers a more drenching blanket of water coverage.



3 **Thermal Dynamics**

Larger water drops and a dense spray pattern result in a warmer, more consistent shower experience.



4 **Consistent Pressure**

While standard showerheads begin losing water pressure at 70 psi, H_2Okinetic showerheads maintain pressure up to 20 psi.

Custom Shower Enhancements

Adorn the space while making it more welcoming and convenient. Brizo® shower enhancements are available in a range of styles and finishes to coordinate with any collection.

ACCESSORIES

Accessories are the perfect way to add an extra element of luxury to the shower space and are available within all Brizo bath collections. From robe hooks and towel bars to glass shelves, they extend the custom aesthetic throughout the entire bath space and are the perfect finishing touch.

Explore available styles

GRAB BARS

Available in a range of sizes, styles and finishes to coordinate with any Brizo bath collection, Decorative Grab Bars are a stunning way to make the bath space even more welcoming. They are ADA compliant and, with proper installation, support up to 500 pounds/226 kg of force—twice the ADA requirement.

Explore available styles

Gather BUILDING INFORMATION

A tailored shower experience combines form and function to transform the space. Every aspect of the building environment merits attention, as does individual preferences. To ensure the shower functions as desired, it's important to take into consideration and gather all plumbing requirements and technical information.

What size are the water supply lines in the home?

If you have 1/2" supply lines, you should select a Pressure Balance or TempAssure® Thermostatic valve. If you have 3/4" supply lines, you should opt for a Sensori® Thermostatic valve.

What is the building's water pressure?

Water pressure is the force that sends water through the external main water supply and into the water lines—making the flow of water strong or weak. It is measured in psi (pressure per square inch) or kPa (kilopascal).

Most custom showers require water pressure equal to at least 45 psi. If water pressure is too low or you add too many components for the available water pressure, shower performance will be reduced.

What is the building's hot water supply?

The hot water supply is critical for optimal performance. The water heater needs to have the capacity to meet hot water demand for as long as the shower is in use.

To determine hot water supply, check the information label on the building's hot water heater, then calculate the hot water demand or consult your licensed plumbing contractor and water heater manufacturer for additional help.

What is the shower's draining rate?

A shower must have enough drainage to ensure water does not flow in faster than it can flow out to avoid pooling and complications. Two 2" drains or one 3" drain, depending on the system, is recommended.

Make sure the floor is sloped toward the drains, usually away from the shower doors.

Are there any state or building regulations or codes?

Determine any state or local codes and/or restrictions that apply to your area that will need to be followed.

SECTION 2

BRIZO® *Custom* SHOWERS

BRIZO® *Shower Systems Overview*

The ideal shower experience means something different to everyone. Three distinct Brizo® custom shower systems are available, so you're able to create the exact level of control and indulgence desired.

PRESSURE BALANCE SHOWERS

A Pressure Balance shower elevates simplicity above all else. A single handle turns the water on and off while delivering the desired temperature.

TEMPASSURE® THERMOSTATIC SHOWERS

More control means more possibilities with the TempAssure Thermostatic shower. Two handles allow for independent volume and temperature control—allowing users to turn the water off without changing the temperature settings, so the water returns to the desired temperature for each shower.

SENSORI® THERMOSTATIC SHOWERS

A completely customizable experience, providing the ultimate control. Volume controls allow individual components to be turned on and off independently, while the valve trim sets temperature—allowing users to turn the water off without changing the temperature settings, so the water returns to the desired temperature for each shower.

PRESSURE BALANCE *Custom Shower*

SYSTEM FUNCTIONALITY

The Pressure Balance shower compensates dynamically for changes in water pressure to maintain a consistent temperature within ± 3.6° F (±2° C)—even when the system pressure varies, using a single-function cartridge.

A Pressure Balance shower system can be used for a tub/shower design or a shower only design with or without a diverter. For a streamlined look, use an integrated valve and diverter trim.

SYSTEM SPECIFICATIONS

- Requires ½" supply lines (inlet/outlet)
- Requires installation using MultiChoice® Universal Rough or MultiChoice® Universal Integrated Shower and Diverter rough
- Red and Blue temperature indication
- Field adjustable to limit handle rotation into hot water zone
- Optional extension kit available
- Max Flow Rate 6.3 gpm @ 60 psi, 23.9 L/min @ 414 kPa

How to Build a Brizo® Pressure Balance Custom Shower

MultiChoice Universal Rough

+

Pressure Balance Valve Trim
Ships with cartridge

+

3- or 6- Function Diverter Rough

+

3- or 6- Function Diverter Trim
Ships with cartridge

+

Showerheads, Handshowers, Body Sprays

Shower Components

MultiChoice Universal Integrated Shower Diverter Rough

+

Pressure Balance Valve with Integrated 3- or 6-Function Diverter Trim
Ships with cartridge

+

Showerheads, Handshowers, Body Sprays

Shower Components

Visit brizo.com for the complete list of Pressure Balance shower products available within each collection.

TEMPASSURE® THERMOSTATIC *Custom Shower*

SYSTEM FUNCTIONALITY

The TempAssure® Thermostatic shower compensates dynamically for changes in water pressure and temperature, constantly measuring, monitoring and adjusting the water mix with the dual-function cartridge to deliver a more precise temperature within ± 3.6° F (±2° C).

A TempAssure Thermostatic shower system can be used for a tub/shower design or a shower only design with or without a diverter. For a streamlined look, use an integrated valve and diverter trim.

SYSTEM SPECIFICATIONS

- Requires ½" supply lines
- Requires installation using MultiChoice® Universal Rough or MultiChoice® Universal Integrated Shower and Diverter rough
- Temperature indication on handle
- Field adjustable to limit handle rotation into hot water zone
- Optional extension kit available
- Max Flow Rate 9.4 gpm @ 60 psi, 35.6 L/min @ 414 kPa

How to Build a Brizo® TempAssure Thermostatic Custom Shower

MultiChoice Universal Rough

+

TempAssure Thermostatic Valve Trim
Ships with cartridge

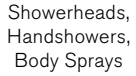
+

3- or 6- Function Diverter Rough

+

3- or 6- Function Diverter Trim
Ships with cartridge

+



Showerheads, Handshowers, Body Sprays

Shower Components

MultiChoice Universal Integrated Shower Diverter Rough

+

TempAssure Thermostatic Valve with 3- or 6-Function Diverter Trim
Ships with cartridge

+

Showerheads, Handshowers, Body Sprays

Shower Components

Visit brizo.com for the complete list of TempAssure Thermostatic shower products available within each collection.

SENSORI® THERMOSTATIC *Custom Shower*

SYSTEM FUNCTIONALITY

Limitless is an understatement with an indulgent Sensori® shower. Like the TempAssure® Thermostatic shower system, the Sensori shower compensates dynamically for changes in water pressure and temperature, to deliver a more precise temperature within ± 3.6° F (±2° C).

This valve-only custom shower system does not require a diverter and is completely customizable. It can be used for a tub/shower or a shower only design, pairing each individual component or set of body sprays with a required volume control—providing limitless possibilities.

SYSTEM SPECIFICATIONS

- Requires ¾" supply lines
- Requires installation using Sensori Thermostatic rough and volume control roughs
- Temperature indication on valve trim
- Field adjustable to limit handle rotation into hot water zone
- Volume controls are required and must be ordered separately
- 10.0 gpm @ 60 psi, 37.9 L/min @ 414 kPa

How to Build a Brizo® Sensori Thermostatic Custom Shower

Sensori
Thermostatic Rough

+

Sensori Thermostatic
Valve Trim
Ships with cartridge

+

Sensori Volume
Control Rough

+

Sensori Volume
Control Trim
Ships with cartridge

+

Showerheads,
Handshowers,
Body Sprays

Shower
Components

Visit brizo.com for the complete list of Sensori Thermostatic shower products available within each collection.

SECTION 3

Start with the Right

FOUNDATION

An Overview of ROUGHS

The ideal custom shower begins behind the wall, starting with roughs.

Almost every element of a shower system requires a rough. Roughs sit behind the finished wall and must be installed before anything else. Retrofitting new roughs after installation can require costly renovations.

Most roughs are offered with stops, giving the plumber or contractor the ability to turn the water off at the rough instead of needing to shut off the entire home or building's water supply. However, roughs with stops will restrict water flow rate (gpm), so roughs without stops are also available. And for thicker wall installations, extension kits are available.

VALVE ROUGHS

The valve rough is the foundation of the shower and shapes the entire shower experience. Selecting the valve rough is the first step to any Brizo® custom shower installation—so choosing the correct option is crucial. The entire shower experience and existing plumbing requirements should be considered when choosing a valve rough.

It connects to the hot and cold water lines, delivering water to the entire shower system and determines which cartridge and trim options are compatible. Typically, valve roughs are offered with either a 1/2" or 3/4" connection. The combined flow rate of a shower's components must not exceed the valve cartridge flow capacity, so it's important to consider how many components will be in the shower when selecting a valve rough.

DIVERTER ROUGHS

Diverter roughs connect water lines to various shower components, delivering pre-mixed water from the shower valve.

INTEGRATED VALVE AND DIVERTER ROUGHS

An integrated rough combines the valve and diverter roughs into one. Because integrated roughs require only one trim attachment, they create a streamlined look on the finished wall.

VOLUME CONTROL ROUGHS

These roughs connect water lines to individual components, allowing users to turn each outlet on or off. These are used in conjunction with a thermostatic shower rough in Brizo® Sensori® shower systems.

BODY SPRAY ROUGH

Certain body sprays require a rough that mounts the sprayhead and connects it to the rest of the shower system.

An Introduction to BRIZO® ROUGHS

MultiChoice® roughs are compatible with both Pressure Balance and TempAssure® Thermostatic cartridges, making it easy to update the shower system functionality and style after the rough has been installed. To enjoy the total customizability of the Sensori shower system, however, you must begin with a Sensori thermostatic valve and volume control roughs.

MULTICHOICE UNIVERSAL VALVE ROUGHS

One rough. Unlimited possibilities. This valve rough is compatible with Pressure Balance and TempAssure® Thermostatic Shower Systems, making it easy to upgrade design or functionality without having to go behind the wall. So you can change your mind, or your style, at any time.

Mounting Bracket
Provides a sturdy method to secure the valve to a stringer and prevents rocking.

Forged Brass Body
Offers uniformity of composition and structure.

Square Plasterguard
Snaps into place with no tools required to remove. The size of a standard tile allows for simple 90° cuts.

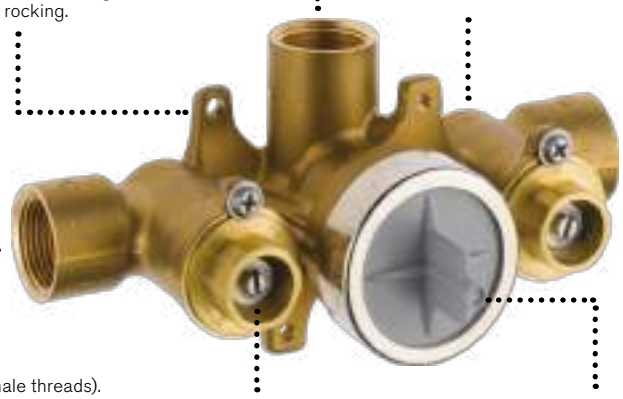
1/2 NPT Inlets/Outlets
Universal connection. Accepts copper tube sweat or threaded connection (male threads).

Heat-Resistant Pressure Test Cap
Allows for air or water testing before the valve cartridge is installed. Easy access for flushing out the system.

Two Connection Types: PEX and UNIVERSAL
Provides connection options for every type of piping.

SENSORI® THERMOSTATIC VALVE ROUGHS

Limitless is an understatement with the Sensori valve rough that allows for complete control of both temperature and volume, with independent volume controls for each component, making it our most customizable shower system.



3/4" NPT Outlet
Threaded connection (female threads). Soldering not required.

Integrated Mounting Bosses
Provides a sturdy method to secure the valve to a stringer and prevents rocking.

Forged Brass Valve Body
Offers uniformity of composition and structure.

3/4" NPT Inlets
Threaded connection (female threads). Soldering not required.

Integrated Stop Valves
Allows water shut-off at rough for ease of servicing. Rough only available with stops.

Heat-Resistant Pressure Test Cap
Pre-assembled. Allows for air or water testing before the valve cartridge is installed. Easy access for flushing out the system.

An Introduction to CARTRIDGES

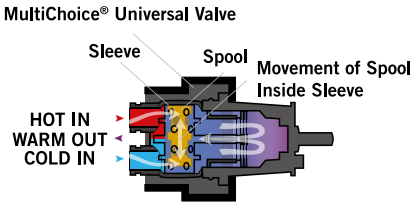
AN INTRODUCTION TO CARTRIDGES

After the valve rough has been installed, but before the exterior valve trim is connected, the shower cartridge is inserted into the valve rough. The cartridge regulates water temperature by mixing together hot and cold water. Some cartridges also control water volume.

Unlike the valve rough, the cartridge can easily be changed without renovation, but the new cartridge must be compatible with the selected valve rough.

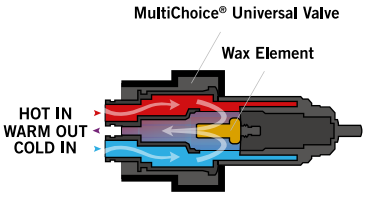
SINGLE-FUNCTION PRESSURE BALANCE CARTRIDGE

The single-function cartridge controls temperature by balancing the pressure of hot and cold water. Hot and cold water flow separately into the cartridge, where a spool and sleeve move back and forth based on inlet pressure to keep temperature constant. A single handle on the valve trim turns the water on and off and controls temperature. Water volume remains the same regardless of the temperature setting.



DUAL-FUNCTION THERMOSTATIC CARTRIDGE

This dual-function cartridge controls temperature and volume independently of each other, using two handles on the valve trim. A wax element inside the cartridge constantly measures, monitors and adjusts the water mix automatically, so temperature won't fluctuate based on ground level water temperature or other water demands within the plumbing system. Water temperature can be set once and will return to the exact temperature with each shower.



SINGLE-FUNCTION THERMOSTATIC CARTRIDGE

The single-function thermostatic cartridge controls temperature only and is set using a single handle on the valve trim. Separate volume control trims are required to turn the water on and off and control volume. Like the dual-function cartridge, a wax element inside the cartridge constantly measures, monitors and adjusts the water mix automatically, so temperature won't fluctuate based on ground level water temperature or other water demands within the plumbing system. Water temperature can be set once and will return to the exact temperature with each shower.

MULTICHOICE® *and* SENSORI® VALVE ROUGHS + CARTRIDGES

Each valve rough has an accompanying cartridge: Single-Function Pressure Balance cartridges and Dual-Function Thermostatic cartridges pair with MultiChoice® roughs and Single-Function Thermostatic cartridges pair with Sensori® roughs for Brizo custom shower systems.

ROUGH	SPECIFICATIONS	CARTRIDGE
 **MultiChoice® Universal Tub/ Shower Rough** R60000-UNBX, R60000-UNWS	▪ ½" universal inlets accept ½" copper, ½" iron pipe, PEX or CPVC adapters ▪ ½" universal outlets with male threads ▪ Back-to-back install capability ▪ BX = single box model ▪ WS = with stops	+  Single-Function Pressure Balance Cartridge OR  Dual-Function Thermostatic Cartridge
 **MultiChoice® Universal Tub/Shower Rough with PEX** R60000-PX, R60000-PXWS	▪ ½" PEX crimp connections ▪ ½" universal outlets with male threads ▪ Back-to-back install capability ▪ WS = with stops	+  Single-Function Pressure Balance Cartridge OR  Dual-Function Thermostatic Cartridge
 **MultiChoice® Universal High Flow Shower Rough** R60000-UNBXHF, R60000-UNWSHF	▪ ½" universal inlets accept ½" copper, ½" iron pipe, PEX or CPVC adapters ▪ ½" universal outlets with male threads ▪ **No tub port** ▪ Back-to-back install capability ▪ WS = with stops	+  Single-Function Pressure Balance Cartridge OR  Dual-Function Thermostatic Cartridge
 **MultiChoice® Universal Integrated Shower and Diverter Rough** R75000, R75000-WS	▪ ½" universal inlets accept ½" copper, iron pipe, PEX or CPVC adapters ▪ ½" universal outlets with male threads ▪ No tub port ▪ Back-to-back install capability ▪ BX = single box model ▪ WS = with stops	+  Diverter Cartridge +  Single-Function Pressure Balance Cartridge OR  Dual-Function Thermostatic Cartridge
 **Sensori® Thermostatic Valve Rough** R66000-WS	▪ ¾"universal inlets accepts ¾" copper, iron pipe, PEX or CPVC adapters ▪ ¾" outlets, inlets/outlets have female threads ▪ No tub port ▪ No back-to-back install capability ▪ WS = with stops	+  Single-Function Sensori Thermostatic Cartridge

VALVE TRIMS

The valve trim is the external control of the shower. It is mounted to the rough after the cartridge has been installed. Depending on the cartridge, the valve trim controls temperature only or both temperature and volume. Since the trim gives the shower its signature look, selecting the right trim is a matter of both style and function.

Brizo® valve trims ship with the cartridge—reducing the risk of this expensive and critical piece being lost or damaged after or during the rough valve installation.

DIVERTER TRIMS

In Pressure Balance or TempAssure® Thermostatic showers with more than one component, diverters are required to direct water to each component or any combination of two components at once.

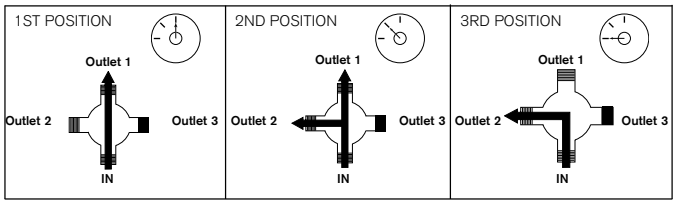
Combining temperature, volume and diverter control into one unit, a valve with integrated diverter trim has a fixed location on the shower wall to provide a more streamlined look, while also simplifying installation.

Adding a diverter will reduce the overall flow rate of the shower by approximately 1 to 1.5 gpm. Certain states have regulations that prevent multiple components from flowing at a time, so non-shared cartridges are available to comply with these regulations.

The number of functions a diverter has determines how many components it can control.

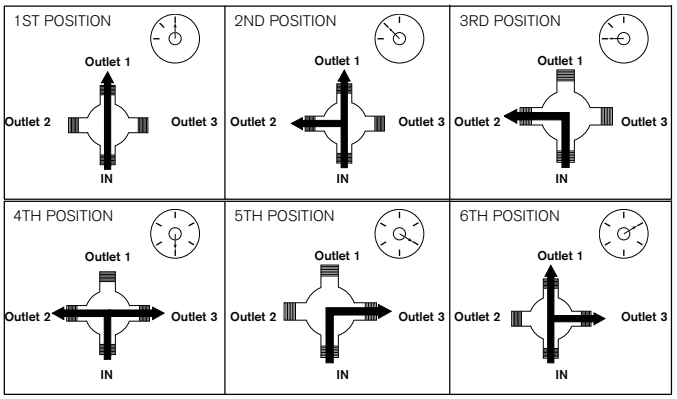
3-FUNCTION DIVERTER

A 3-function diverter controls two shower components. It has two individual positions and one shared position—meaning it can turn on each component independently or both at the same time.



6-FUNCTION DIVERTER

A 6-function diverter controls three shower components. It has three individual positions and three shared positions—meaning it can turn on each component independently, or any combination of two components at once.

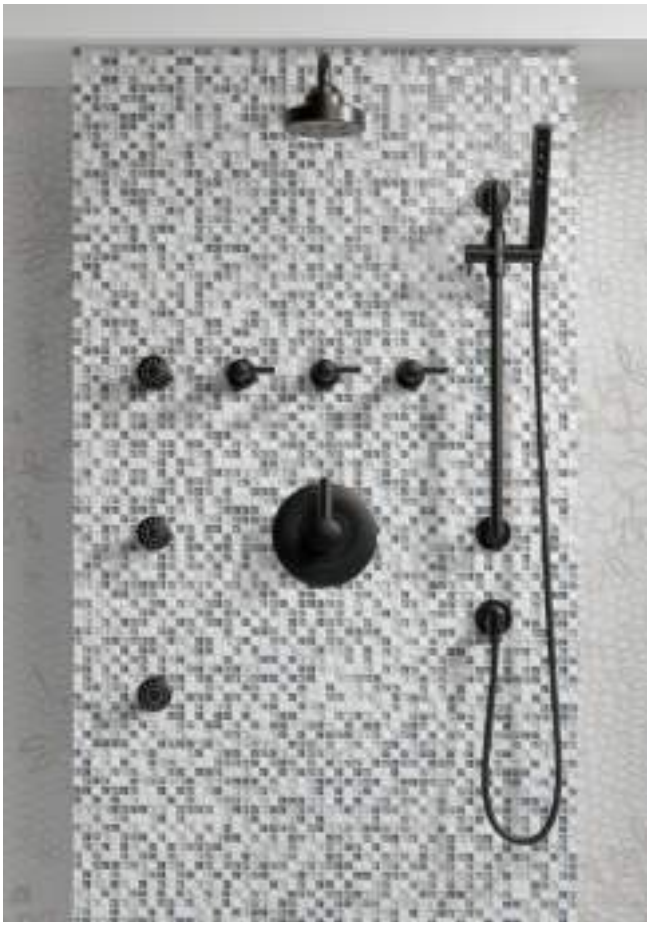


VOLUME CONTROL TRIMS

Volume controls provide a completely customizable shower experience. They are required for each individual component and set of body sprays in a Sensori® Thermostatic shower, allowing components to flow together or independently.

The 90° handle rotation controls volume and adjusts the flow of water to each individual component—flowing up to 8.2 gpm @ 60 psi per volume control when paired with a Sensori Thermostatic valve trim.

Pair with a wide variety of Brizo® showerheads, handshowers and/or body sprays to create the ultimate shower with a lavish water experience.



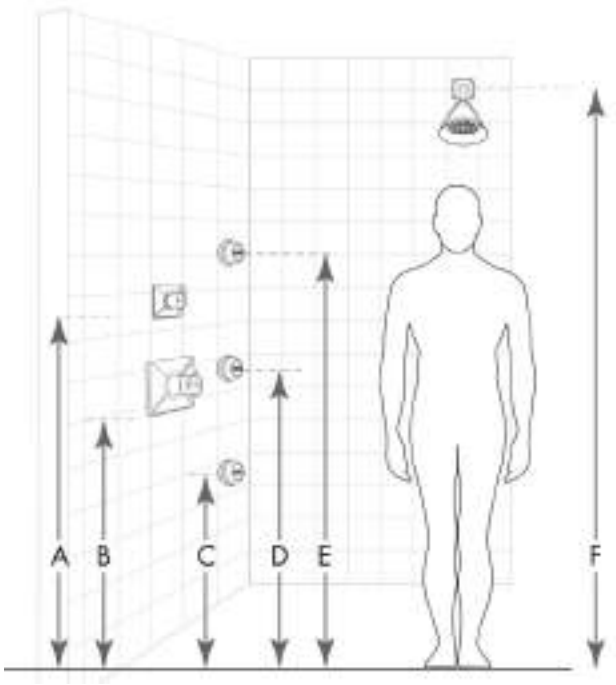
SECTION 4

Building Your

CUSTOM SHOWER

PLAN COMPONENT PLACEMENT

For maximum performance and protection against extreme temperatures, experts recommend placing shower components on interior walls only.



Keep these guidelines in mind:

VALVE TRIMS

Valve trims usually are placed approximately 36" from the bottom of the shower enclosure or about waist high. Consider placing valve trims outside of the shower or near the entrance so water can be turned on or the temperature can be set before entering the shower.

DIVERTERS AND VOLUME CONTROL TRIMS

Diverter and volume control trims should be easily accessible for all users and placement is flexible. They can be placed near the valve trim or outside or near the entrance so users can turn components on before entering. Volume controls can also be placed near the component they control on the shower wall.

SHOWERHEADS

Place the showerhead at a comfortable height for those who will use the shower most. The showerhead should be above the head of the tallest user, yet within reach for the shortest user, or consider an adjustable shower arm.

Don't place raincan showerheads directly above the drain. Otherwise, the user may stand over the drain and prevent proper water drainage.

HANDSHOWERS

The placement of handshowers is flexible and can vary based on the intended use. If using a wall-mounted handshower as the primary showerhead, it should be above the head of the tallest user, yet within reach for the shortest user.

Slide Bar Handshowers allow flexibility and adjustability for varying user heights.

BODY SPRAYS

The maximum number of body sprays recommended on one loop is four. Beyond that, sprays should be separated into smaller groups.

To envelope your body with water, position body sprays on multiple walls if possible. Avoid aiming body sprays directly at the shower door as this may cause leaks or spillover.

The lowest body spray is usually placed at knee or thigh height, the middle body spray is usually placed at hip or waist level, and the highest is usually placed at shoulder or back height.

If using a bench, you may want a body spray positioned to hit you in the lower back when sitting, or even below the bench for leg massaging to increase circulation or relieve tension.

BRIZO® *Shower Systems in Action*

When designing a custom shower, it is critical for optimal performance that the components do not exceed the flow rate the system was designed to deliver. It is also important to determine the flow rate of your shower design to confirm that the water pressure and water heater can support the demand of the shower.

The following pages provide examples of each Brizo shower system to demonstrate how to calculate the flow rate and verify that it does not exceed the maximum flow rate the system can support.

PRESSURE BALANCE SHOWER *in Action*

A. Pressure Balance Valve with Integrated 6-Function Diverter Trim + MultiChoice® Universal Integrated Shower and Diverter Rough = 5.0 gpm @ 60 psi

SYSTEM #1

B. Individual Position 1: Wall Mount Showerhead = 1.75 gpm < 5.0 gpm

C. Individual Position 2: Wall Mount Handshower = 1.75 gpm < 5.0 gpm

D. Individual Position 3: Raincan Showerhead = 2.5 gpm < 5.0 gpm

B. + **C.** Shared Position 1: Wall Mount Showerhead + Wall Mount Handshower = 4.25 gpm < 5.0 gpm

B. + **D.** Shared Position 2: Wall Mount Showerhead + Raincan Showerhead = 4.25 gpm < 5.0 gpm

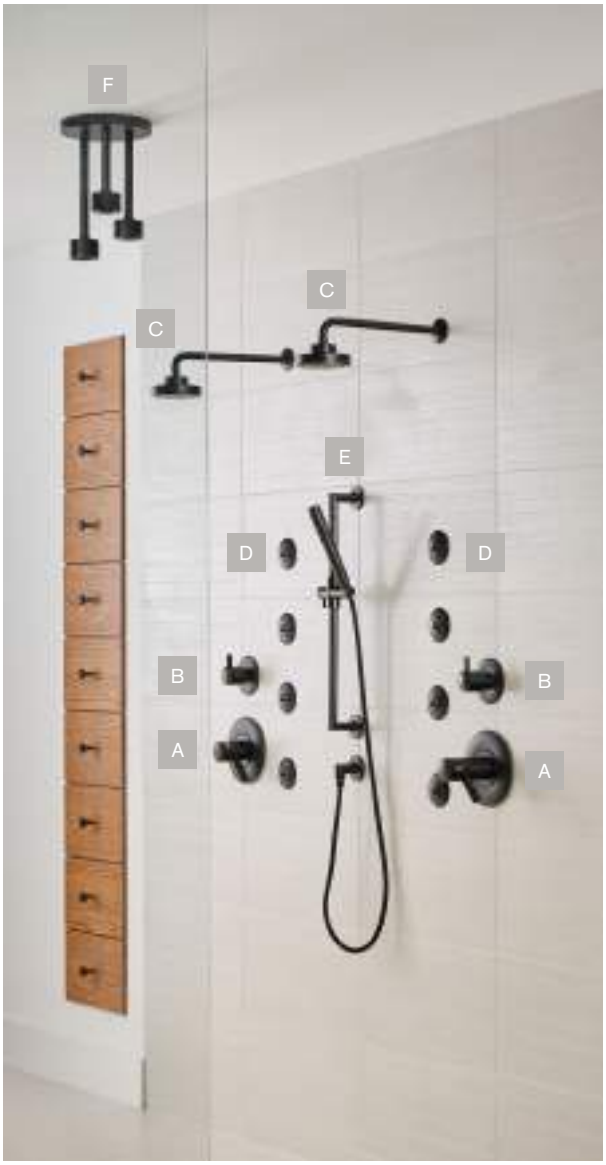
C. + **D.** Shared Position 3: Wall Mount Handshower + Raincan Showerhead = 4.25 gpm < 5.0 gpm

PRESSURE BALANCE FLOW RATE CHART

MULTICHOICE® UNIVERSAL INTEGRATED SHOWER AND DIVERTER ROUGH	**40 PSI, 275 kPa** Shower Port	**60 PSI, 414 kPa** Shower Port	**80 PSI, 550 kPa** Shower Port
R75000	4.1 gpm, 15.5 L/m	5.0 gpm, 18.9 L/m	5.8 gpm, 22.0 L/m
R75000-WS	3.9 gpm, 14.7 L/m	4.8 gpm, 18.2 L/m	5.6 gpm, 21.2 L/m

NOTES: Flow rates vary by shower component. Other installation factors could impact maximum flow rate.

TEMPASSURE® THERMOSTATIC SHOWER *in Action*



A. TempAssure Thermostatic Valve Trim + MultiChoice® Universal High-Flow Rough = 9.4 gpm @ 60 psi

B. 6-Function Diverter Trim + Diverter Rough *Subtract 1.5 gpm from 9.4 gpm* = 7.9 gpm @ 60 psi

SYSTEM #1

C. Individual Position 1: Wall Mount Showerhead = 1.75 gpm < 7.9 gpm

D. Individual Position 2: Body Sprays = 6.0 gpm < 7.9 gpm

E. Individual Position 3: Slide Bar Handshower = 1.75 gpm < 7.9 gpm

C. + **D.** Shared Position 1: Wall Mount Showerhead + Body Sprays = 7.75 gpm < 7.9 gpm

C. + **E.** Shared Position 2: Wall Mount Showerhead + Slide Bar Handshower = 3.5 gpm < 7.9 gpm

D. + **E.** Shared Position 3: Slide Bar Handshower + Body Sprays = 7.75 gpm < 7.9 gpm

SYSTEM #2

C. Individual Position 1: Wall Mount Showerhead = 1.75 gpm < 7.9 gpm

D. Individual Position 2: Body Sprays = 6.0 gpm < 7.9 gpm

F. Individual Position 3: Raincan Showerhead = 1.75 gpm < 7.9 gpm

C. + **D.** Shared Position 1: Wall Mount Showerhead + Body Sprays = 7.75 gpm < 7.9 gpm

C. + **F.** Shared Position 2: Wall Mount Showerhead + Raincan Showerhead = 3.5 gpm < 7.9 gpm

D. + **F.** Shared Position 3: Raincan Showerhead + Body Sprays = 7.75 gpm < 7.9 gpm

TEMPASSURE® THERMOSTATIC FLOW RATE CHART

MULTICHOICE® UNIVERSAL ROUGH	40 PSI, 275 kPa Shower Port	60 PSI, 414 kPa Shower Port	80 PSI, 550 kPa Shower Port
R60000-UNBX	6.4 gpm, 24.4 L/min	7.8 gpm, 29.6 L/min	9.1 gpm, 34.5 L/min
R60000-UNWS	5.5 gpm, 20.8 L/min	6.7 gpm, 25.5 L/min	7.7 gpm, 29.2 L/min
R60000-UNBXHF (High-Flow)	7.6 gpm, 28.8 L/min	9.4 gpm, 35.6 L/min	10.9 gpm, 41.3 L/min
R60000-UNBXWS (High-Flow)	6.6 gpm, 25.0 L/min	8.0 gpm, 30.3 L/min	9.3 gpm, 35.2 L/min

NOTES: Must use R60000-UNBX and R60000-UNWS roughs for tub/shower or tub-only applications. Adding a separate 3- or 6-function diverter will reduce flow rates. Flow rates vary by shower component. Other installation factors could impact maximum flow rate.

SENSORI® THERMOSTATIC SHOWER *in Action*

A. Sensori Volume Control Trim + Sensori Volume Control Rough = 8.2 gpm @ 60 psi *(PER VOLUME CONTROL)*

B. Sensori Thermostatic Valve + Sensori Thermostatic Valve Rough = 10.0 gpm @ 60 psi *(TOTAL SYSTEM)*

SYSTEM #1

C. Volume Control 1: Wall Mount Showerhead = 1.75 gpm < 8.2 gpm

D. Volume Control 2: Wall Mount Handshower = 1.75 gpm < 8.2 gpm

E. Volume Control 3: HydraChoice Max® Body Sprays = 3.0 gpm < 8.2 gpm

F. Volume Control 4: Raincan Showerhead = 2.5 gpm < 8.2 gpm

TOTAL SYSTEM = 9.0 gpm < 10.0 gpm

SYSTEM #2

C. Volume Control 1: Wall Mount Showerhead = 1.75 gpm < 8.2 gpm

D. Volume Control 2: Raincan Showerhead = 2.5 gpm < 8.2 gpm

E. Volume Control 3: HydraChoice Max® Body Sprays = 3.0 gpm < 8.2 gpm

TOTAL SYSTEM = 7.25 gpm < 10.0 gpm

SENSORI® THERMOSTATIC CARTRIDGE			
SENSORI® ROUGHS	**40 PSI, 275 kPa** Shower Port	**60 PSI, 414 kPa** Shower Port	**80 PSI, 550 kPa** Shower Port
R66000-WS (Thermostatic Valve Rough Only)	8.0 gpm, 30.3 L/min	10.0 gpm, 37.9 L/min	11.3 gpm, 42.8 L/min
R66000-WS (Thermostatic Valve Rough) & R35600 (Volume Control Rough)	6.6 gpm, 25.0 L/min	8.2 gpm, 31.0 L/min	9.6 gpm, 36.3 L/min

NOTES: Volume controls are required for every outlet and every set of body sprays (up to 8.2 gpm @ 60 psi). Flow rates vary by shower component. Other installation factors could impact maximum flow rate.

SECTION 5

Make Your SELECTIONS

STEP 1 *Select Your Shower System*

As you choose a shower system, consider the water experience and shower features.
Keep in mind that a MultiChoice® Universal Rough is compatible with both Pressure Balance and TempAssure® Thermostatic showers. Thus, the trim and shower system can be updated without making changes behind the wall. Additionally, a Sensori® trim style can easily be updated to any other Sensori trim style.

SHOWER SYSTEM	VALVE TRIM			CARTRIDGE
Pressure Balance Shower System	○ Pressure Balance Valve Trim	Model No. _____ Handle Model No. *(LHP Models Only)* _____	Qty. _____	Single-Function Pressure Balance Cartridge *Ships with Valve Trim*
	○ Pressure Balance Integrated Valve & Diverter Trim	Model No. _____ Handle Model No. *(LHP Models Only)* _____	Qty. _____	
TempAssure® Thermostatic Shower System	○ TempAssure Thermostatic Valve Trim	Model No. _____ Handle Model No. *(LHP Models Only)* _____	Qty. _____	Dual-Function TempAssure® Thermostatic Cartridge *Ships with Valve Trim*
	○ TempAssure Thermostatic Integrated Valve & Diverter Trim	Model No. _____ Handle Model No. *(LHP Models Only)* _____	Qty. _____	
Sensori® Thermostatic Shower System	○ Sensori Valve Trim	Model No. _____ Handle Model No. *(LHP Models Only)* _____	Qty. _____ Qty. _____	Single-Function Sensori® Thermostatic Cartridge *Ships with Valve Trim*

STEP 2 *Select the Valve Rough*

Use the chart below and the shower valve you selected *(in Step 1)* to determine the maximum flow rate of the shower system. If installing more than one valve *(in Step 1)*, multiply the max flow rate by the total number of valves. Record this number below, as you will need to consult it in the following steps *(Steps 3 & 4)*.

PRESSURE BALANCE CARTRIDGE

Multichoice® Universal Rough	**40 PSI, 275 kPa** Shower Port	**60 PSI, 414 kPa** Shower Port	**80 PSI, 550 kPa** Shower Port
R60000-UNBX	4.6 gpm, 17.4 L/min	5.8 gpm, 22.0 L/min	6.8 gpm, 25.7 L/min
R60000-UNWS	4.5 gpm, 17.0 L/min	5.6 gpm, 21.1 L/min	6.5 gpm, 24.5 L/min
R60000-UNBXHF (High Flow)	5.0 gpm, 18.9 L/min	6.3 gpm, 23.9 L/min	7.3 gpm, 27.6 L/min
R60000-UNWSHF (High Flow)	4.6 gpm, 17.5 L/min	5.8 gpm, 21.8 L/min	6.8 gpm, 25.2 L/min
NOTES: R60000-UNBXHF and R60000-UNWSHF roughs for use with Custom Shower and Shower only applications. Must use R60000-UNBX or R60000-UNWS for Tub/Shower or Tub only applications. Adding a separate 3 or 6 function diverter will reduce flow rates. Flow rates vary by shower component. Other installation factors could impact maximum flow rate.			
Multichoice® Universal Integrated Shower Diverter Rough	**40 PSI, 275 kPa** Shower Port	**60 PSI, 414 kPa** Shower Port	**80 PSI, 550 kPa** Shower Port
R75000	4.1 gpm, 15.5 L/min	5.0 gpm, 18.9 L/min	5.8 gpm, 21.8 L/min
R75000-WS	3.9 gpm, 14.8 L/min	4.8 gpm, 18.2 L/min	5.6 gpm, 21.0 L/min
NOTES: Flow rates vary by shower component. Other installation factors could impact maximum flow rate.			

Pressure Balance Rough

Model No.

Qty.

Maximum Flow Rate

TEMPASSURE® THERMOSTATIC CARTRIDGE

Multichoice® Universal Rough	**40 PSI, 275 kPa** Shower Port	**60 PSI, 414 kPa** Shower Port	**80 PSI, 550 kPa** Shower Port
R60000-UNBX	6.4 gpm, 24.4 L/min	7.8 gpm, 29.6 L/min	9.1 gpm, 34.5 L/min
R60000-UNWS	5.5 gpm, 20.8 L/min	6.7 gpm, 25.5 L/min	7.7 gpm, 29.2 L/min
R60000-UNBXHF (High Flow)	7.6 gpm, 28.8 L/min	9.4 gpm, 35.6 L/min	10.9 gpm, 41.3 L/min
R60000-UNWSHF (High Flow)	6.6 gpm, 25.0 L/min	8.0 gpm, 30.3 L/min	9.3 gpm, 35.2 L/min
NOTES: R60000-UNBXHF and R60000-UNWSHF roughs for use with Custom Shower and Shower only applications. Must use R60000-UNBX or R60000-UNWS for Tub/Shower or Tub only applications. Adding a 3 or 6 function diverter will reduce flow rates. Flow rates vary by shower component. Other installation factors could impact maximum flow.			
Multichoice® Universal Integrated Shower Diverter Rough	**40 PSI, 275 kPa** Shower Port	**60 PSI, 414 kPa** Shower Port	**80 PSI, 550 kPa** Shower Port
R75000	5.9 gpm, 22.4 L/min	7.2 gpm, 27.3 L/min	8.3 gpm, 31.4 L/min
R75000-WS	5.3 gpm, 20.1 L/min	6.5 gpm, 24.5 L/min	7.4 gpm, 28.10L/min
NOTES: Flow rates vary by shower component. Other installation factors could impact maximum flow rate.			

TempAssure® Thermostatic Rough

Model No.

Qty.

Maximum Flow Rate

SENSORI® THERMOSTATIC CARTRIDGE

Sensori® Roughs	**40 PSI, 275 kPa** Shower Port	**60 PSI, 414 kPa** Shower Port	**80 PSI, 550 kPa** Shower Port
R66000-WS (Thermostatic Valve Rough Only)	8.0 gpm, 30.3 L/min	10.0 gpm, 37.9 L/min	11.3 gpm, 42.8 L/min
R66000-WS (Thermostatic Valve Rough) & R35600 (Volume Control Rough)	6.6 gpm, 25.0 L/min	8.24 gpm, 31.0 L/min	9.6 gpm, 36.3 L/min
NOTES: Volume controls are required for every outlet and every set of body sprays (up to 8.2 gpm @ 60 psi). Flow rates vary by shower component. Other installation factors could impact maximum flow rate.			

Sensori® Rough

Model No.

Qty.

Maximum Flow Rate of Shower System

Maximum Flow Rate per Volume Control

STEP 3 *Select Shower Components*

The sum of all components' flow rates must not exceed the maximum flow rate *(from Step 2)*.
Depending on the system and number of components, you may need to add diverters or volume controls *(Step 5)*.

Max Flow Rate *(from Step 2)*: _____

SHOWERHEAD(S)

Wall Mount:	Model No.	Qty.	×	Individual Flow Rate	=	Combined Flow Rate
Raincan:	Model No.	Qty.	×	Individual Flow Rate	=	Combined Flow Rate

HANDSHOWER(S)

Slide Bar:	Model No.	Qty.	×	Individual Flow Rate	=	Combined Flow Rate
Wall Mount:	Model No.	Qty.	×	Individual Flow Rate	=	Combined Flow Rate

HYDRATI® 2|1 SHOWER

Hydrati 2|1:	Model No.	Qty.	×	Individual Flow Rate	=	Combined Flow Rate

BODY SPRAY(S)

HydraChoice Max® *Up to 4 body sprays = 1 component*

Trim:	Model No.	Qty.	×	Individual Flow Rate	=	Combined Flow Rate
Spray Head:	Model No.	Qty.				
Rough: *(one rough per body spray)*	Model No.	Qty.				

Touch-Clean® *Up to 4 body sprays = 1 component*

Trim:	Model No.	Qty.	×	Individual Flow Rate	=	Combined Flow Rate

Total Number of Components: ☐

Note: *If the total number of components exceeds 3, you will need to add a second valve trim or opt for a Sensori® system.*

STEP 4 *Determine Diverter or Volume Controls*

If you selected an integrated valve with diverter trim in STEP 1, skip this step.
Otherwise, use the maximum flow rate *(from Step 2)* and the number of components *(from Step 3)* to choose a diverter or volume control(s) to complete the system.

Max Flow Rate *(from Step 2)*: _____ **Total Number of Components** *(from Step 3)*: _____

Pressure Balance and TempAssure® Thermostatic

Two shower components require a 3-function diverter, while three components require a 6-function diverter.

Diverter Rough(s): _____ (Model No.) _____ (Qty.)

Diverter Trim(s): _____ (Model No.) _____ (Qty.)

Diverter Flow Reduction Rate: 1.5 gpm × _____ (# of Diverters) = _____ Diverter Flow Reduction Rate

New Maximum Flow Rate: _____ (Original Max Flow Rate (Step 2)) – _____ (Diverter Flow Reduction Rate) = _____ New Max Flow Rate

Sensori® Thermostatic

Individual volume controls are required for each component or set of body sprays up to a max flow rate of 8.2 gpm per volume control.

Volume Control(s)

Rough: _____ (Model No.) _____ (Qty.)

Trim: _____ (Model No.) _____ (Qty.)

STEP 5 *Confirm Shower Flow Rates*

A shower's total flow rate is the combined flow rate of the number of components that can be turned on at one time. This must not exceed the shower's maximum valve flow rate. *(See pages 27-29 for example calculations.)*

Max Flow Rate: _____

If using an integrated diverter valve or Sensori® valve, refer to Step 2 for the maximum flow rate of the shower system. Otherwise, refer to Step 4 for the New Maximum Flow Rate with diverters.

Pressure Balance and TempAssure® Thermostatic

3-FUNCTION DIVERTER:

In a system with a 3-function diverter, up to two components can be turned on at a time.
Both the individual position flow rates and the shared position flow rate must be lower than the shower's maximum flow rate.

Component 1 Flow Rate: _____ Individual Position 1

Component 2 Flow Rate: _____ Individual Position 2

Component 1 Flow Rate + Component 2 Flow Rate: _____ Shared Position 1

6-FUNCTION DIVERTER:

In a system with a 6-function diverter, up to two components can be turned on at a time.
Each of the individual position flow rates and shared position flow rates must be lower than the maximum flow rate of the shower system.

Note: *The highest maximum flow rate of any shared position must not exceed the overall maximum flow rate of the shower.*

Component 1 Flow Rate: _____ Individual Position 1

Component 2 Flow Rate: _____ Individual Position 2

Component 3 Flow Rate: _____ Individual Position 3

Component 1 Flow Rate + Component 2 Flow Rate: _____ Shared Position 1

Component 1 Flow Rate + Component 3 Flow Rate: _____ Shared Position 2

Component 2 Flow Rate + Component 3 Flow Rate: _____ Shared Position 3

Sensori® Thermostatic

VOLUME CONTROLS:

The sum of all component flow rates must not exceed the overall maximum flow rate of the shower *(from Step 2)* and the sum of each individual component must not exceed the volume control max flow.

Component 1 Flow Rate: _____ Volume Control 1

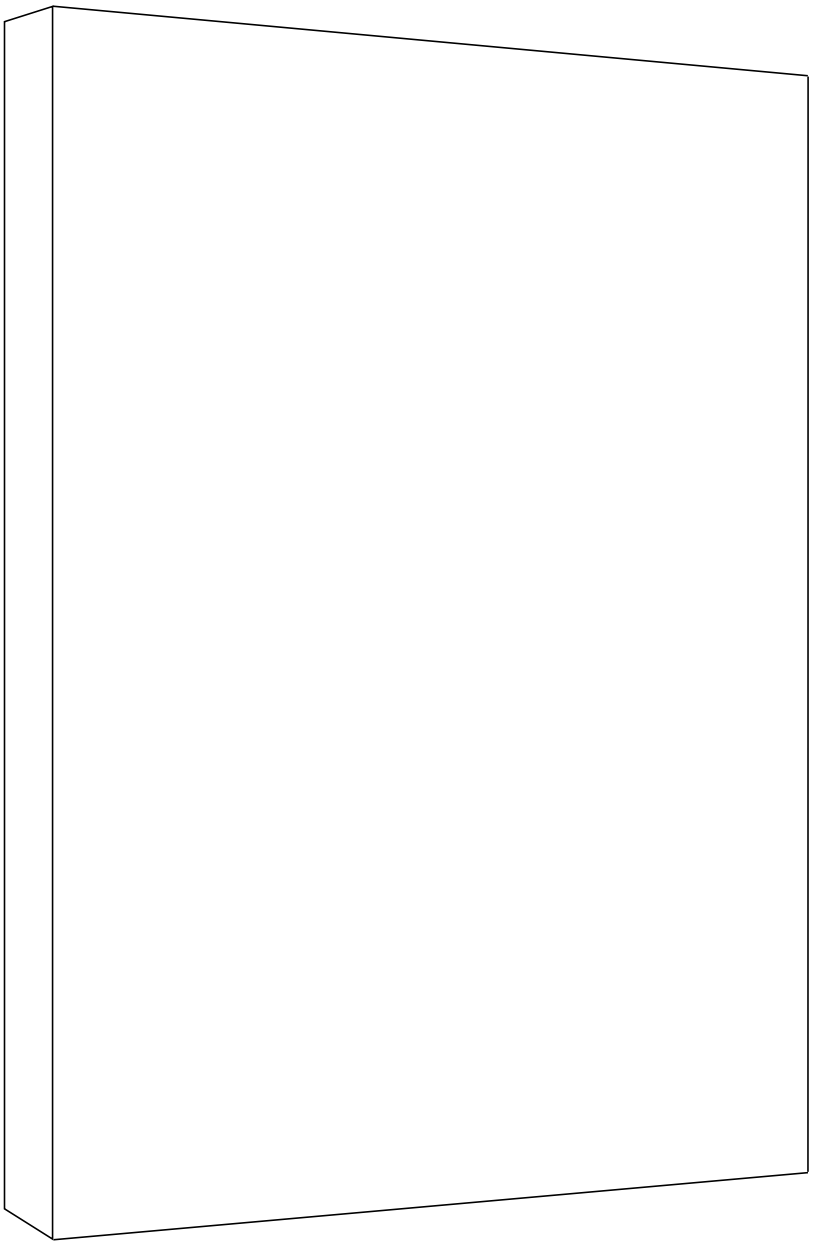
Component 2 Flow Rate: _____ Volume Control

Component 3 Flow Rate: _____ Volume Control 3

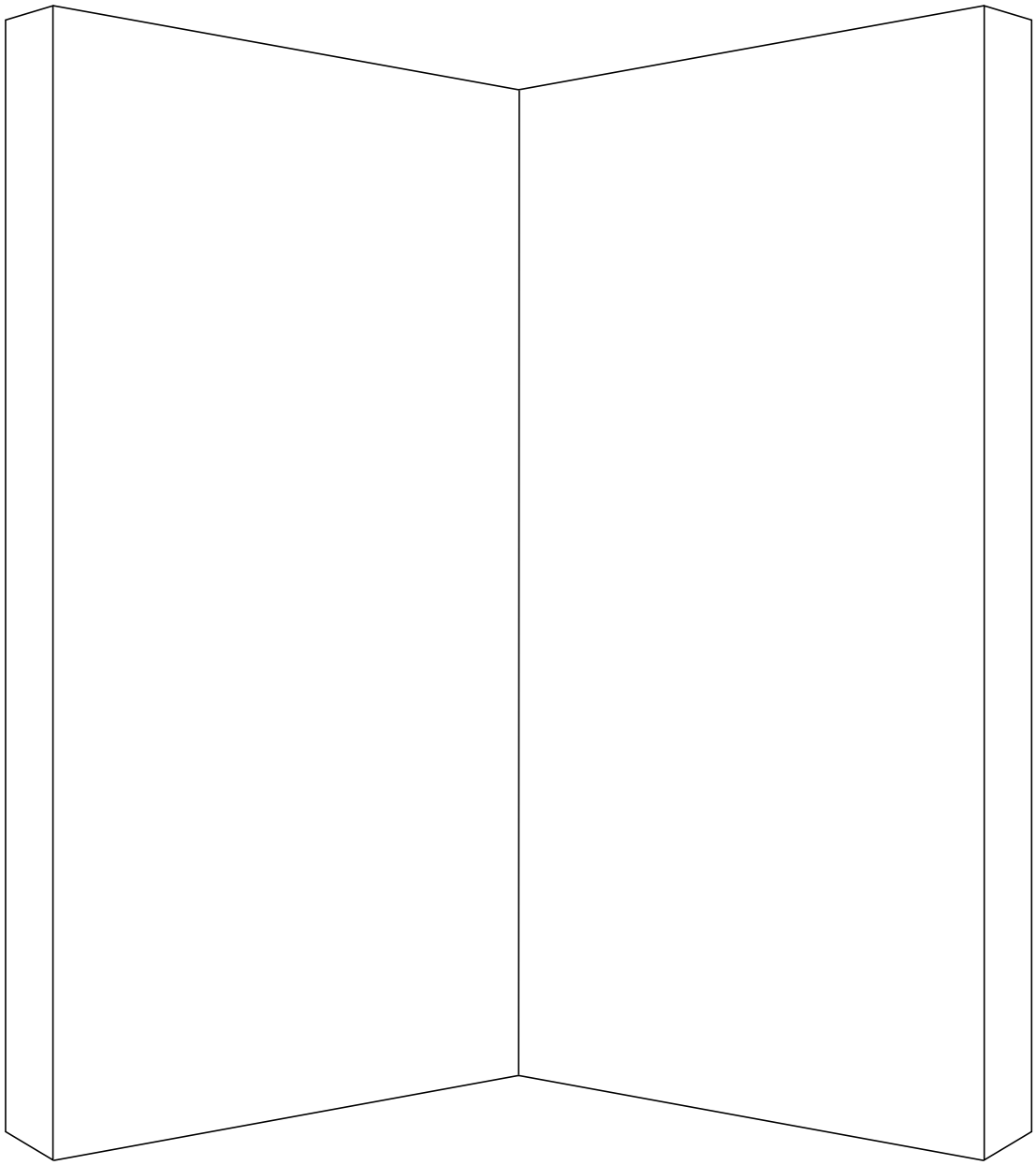
Component 4 Flow Rate: _____ Volume Control 4

Component 5 Flow Rate: _____ Volume Control 5

STEP 6 *Design the Shower Layout: One Wall*



STEP 6 *Design the Shower Layout: Two Walls*



STEP 6 *Design the Shower Layout: Three Walls*