

# UNDERSTANDING PLUMBING

STUDIO MUNGE EDUCATIONAL SEMINAR

STUDIO  
MUNGE

# TYPES OF PLUMBING



***"The system of pipes, tanks ,fittings and other apparatus required for water supply, heating and sanitation in a building"***

PLUMBING SUPPLIERS



*Most plumbing companies we work we can accomodate both contract and residential application. The main factors in determining use is code compliance and price project specifically*



# HOW TO CHOOSE PLUMBING FIXTURES

## WHAT ARE MY NEEDS?

### -What kind of project am I working on?

(Home, Restaurant, Condo, Hotel, Restaurant, Outdoor)-this are the factors in understanding what type of plumbing is required (IF ANY eg. restaurant, we typically do not specify plumbing, maybe just for the public bathroom )

### -What is my budget?

Budget parameters will be outlined by your project lead from client discussion

### -What is my lead time?

When are the goods needed for your project? Project Leads will have this accounted for in schedule

### -What kind of codes are in place?

Project Managers/Leads to discuss with client and AOR mechanical perimeters(if any) to ensure we are complying with necessary specification requirements

### -Know your hero pieces!

Sculptural Faucet? Apron Sink ? Spa experience? Beyond function, what are we accentuating through out plumbing fixtures?

## P-Plumbing Fixtures





# TYPES OF PLUMBING FIXTURES

## SINK

Undermount



Overmount



Apron



## FAUCETS

Counter Mounted

\*can include multiple holes



Wall mounted

\*can include multiple holes



\*Ensure rough in requirements are reviewed to account for requirements behind the wall for wallmounted accessories  
Do we have to build out more? how does that affect our space planning?

Free Standing



# TYPES OF PLUMBING FIXTURES

## DRAINS

P-Trap



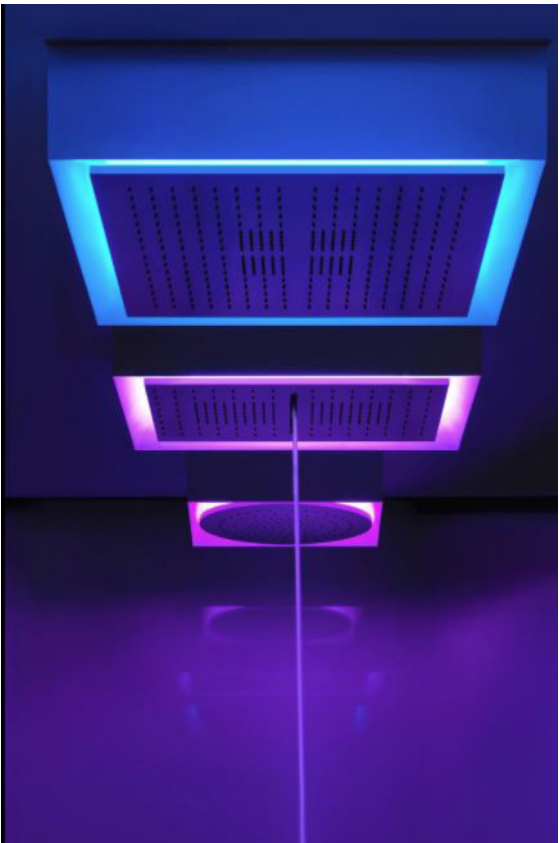
Concealed Drain



\*we can provide aesthetic intend of these elements when they impact our design

## SHOWER

### Shower Heads, Wand and Control



\*shower coordination in relation to controls can be tricky, communicate and rely on suppliers to provide required information for us to accomodate requirements behind the wall

# TYPES OF PLUMBING FIXTURES

## WALLMOUNTED FLUSH



\*cross section showing rough-in behind wall, need to ensure we are accounting for space required/ensure space exists to accomodate

## TYPICAL TOILET





INTERPRETING SPECIFICATION

### KOHLER® Faucets

**Features**

- Single lever handle allows for simultaneous on/off activation and temperature setting.
- KOHLER ceramic disc valves exceed industry longevity standards for a lifetime of durable performance.
- Includes Shift® handshower and 60" shower hose.
- Coordinates with Purist faucets, accessories, and showering components to complete your bathroom.
- 7 gpm (gallons per minute) at 45 PSI.
- 1.75 gpm (6.6 lpm) flow rate for handshower.

**Material**

- Premium metal construction for durability and reliability.
- KOHLER finishes resist corrosion and tarnishing.

**Installation**

- Floor-mount.
- Compatibility with bathtub varies by application.

**Required Products/Accessories**

K-97339 Multiproduct Mounting-block

**Recommended Products/Accessories**

K-23723 Faucet cleaner

**Included Components**

Additional Components:


K-10257 Multifunction Handshower

60" shower hose

**Purist®**

Floor-mount bath filler trim with handshower

**K-T97328-4**



**WaterSense**  
Meets EPA Criteria  
Certified by NIBI/NSF

**Codes/Standards**

ASME A112.18.1/CSA B125.1  
DOE - Energy Policy Act 1992  
EPA WaterSense®  
California Energy Commission (CEC)

**KOHLER® Faucet Lifetime Limited Warranty**

See website for detailed warranty information.

**Available Colors/Finishes**

*Color tiles intended for reference only.*

Color	Code	Description
	CP	Polished Chrome
	SN	Vibrant® Polished Nickel
	BGD	Vibrant® Moderne Brushed Gold
	BN	Vibrant® Brushed Nickel
	BL	Matte Black
	2MB	Vibrant® Brushed Moderne Brass

**Compliance Note:** Ask Supplier that it meets needs regionally in email if you are not sure eg. using a new brand, working in a new region


**American Standard**

**Studio® S Right Height®**

**Elongated Low-Profile Toilet with Seat**

BARRIER FREE

Vitreous China



**Studio® S Right Height®**

**Elongated Low-Profile Toilet with Seat**

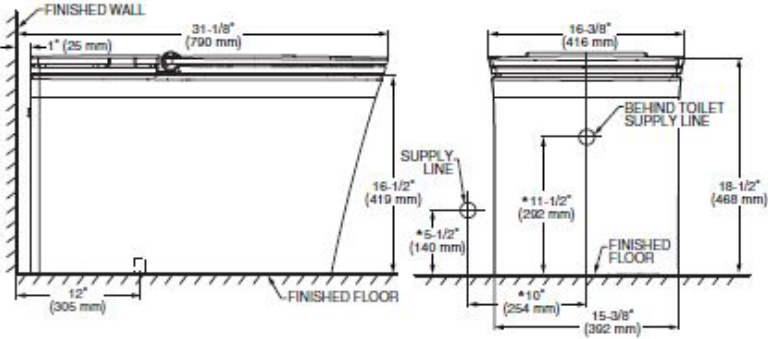
**2548A100**

- High performance and quiet PowerFlo™ flushing system requires no electrical power and uses standard inlet water connection
- 12" (305 mm) rough-in
- Right Height elongated siphon action bowl with smooth-sided, concealed trapway
- Ultra-high efficiency toilet (UHET) 1.0 gpf/3.8 Lpf
- Meets EPA WaterSense® and MaP PREMIUM criteria
- Generous 8-1/4" x 9-1/4" (210 x235 mm) water surface area
- 16-1/2" (419 mm) rim height
- 2" (51 mm) fully glazed trapway
- Color matched tank top actuator
- Includes slow-close seat and cover with easy lift-off feature
- Obtains best 1,000g MaP Score\*\* at 1.0 gpf
- Lifetime warranty on chinaware, 5-year warranty on all mechanical parts, 1 year warranty on seat
- Design coordinates with Studio® S suite of fixtures and faucets

**Nominal Dimensions:**

31-1/8" x 16-3/8" x 18-1/2" (790 x 416 x 468 mm)

Fixture and toilet seat only, supply sold separately



**Notes:**

THIS COMBINATION IS DESIGNED TO ROUGH-IN AT A MINIMUM DIMENSION OF 305MM (12") FROM FINISHED WALL TO C/L OF OUTLET.

\* DIMENSIONS SHOWN FOR LOCATION OF SUPPLY ARE SUGGESTED. SUPPLY NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY.

**IMPORTANT:** Dimensions of fixtures are nominal and may vary within the range of tolerance established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

**Compliance Certifications -**

**Meets or Exceeds the Following Specifications:**

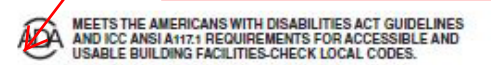
- ASME A112.19.2/CSA B45.1 For Vitreous China Fixtures
- US EPA WaterSense® Specification for UHETs




**To Be Specified:**

☐ Color: ☐ White

☐ Supply with Stop:

**ADA Compliance Note:** on cutsheet, needed to ensure it passes



© 2020 AS America Inc.

spec\_2548A100\_Studio S-1pc toilet Rev. 1 8/20

**Colour Note**

**Codes for Specification**

8

SPECIFYING PLUMBING



INTEPERETTING SPECIFICATION

KALDEWEI

BLANCO

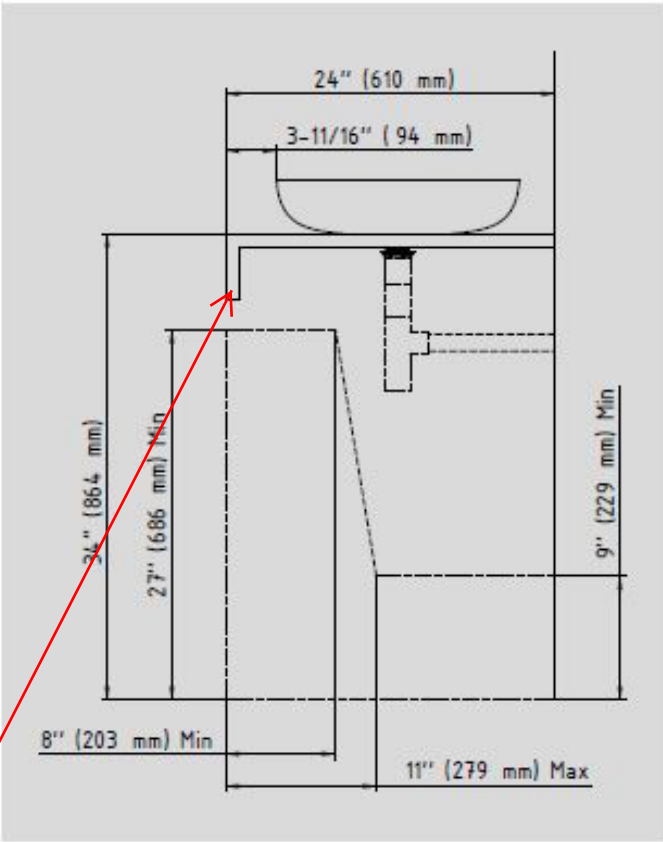
IKON 33 1 3/4 LOW DIVIDE  
SILGRANIT

RECOMMENDED ADA INSTALLATION FOR  
MIENA WASHBASINS ROUND

- premium products redefine the concept of sophisticated minimalism
- versatile combination with bathtubs and shower surfaces designed for a "perfect match"
- iconic in bathroom design: ideal for combination with elegant fittings
- made of KALDEWEI steel enamel—resilient and durable material matched perfectly to the design
- designed by Anke Salomon

washbowl round:  
3180-9  
3181-9

ADA Specific cutsheet and diagram to ensure compliance- important for amenity space in condo and hospitality use



Models meet ADA guidelines when Installed according to recommended ADA Installation.

Sink Specifications

Color	SKU
Anthracite	402322
Café	402323
Metallic Gray	402325
White	402324
Cinder	402326
Truffle	402329
Concrete Gray	402330
Biscuit	402328
Coal Black	402525

Design and Planning Tips

- Min cabinet size: 36 in
- Bowl depth: 9-1/4" in
- Rim height: 10 in

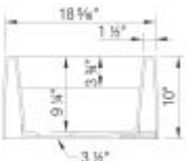
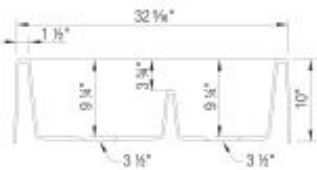
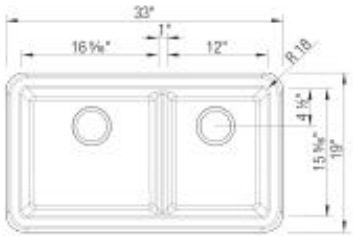
What is included:  
Installation instructions  
Cabinet template  
Limited Lifetime Warranty

Apron front installation only  
Minimum cabinet size: 36"  
Cut-out Dimensions: custom installation. Use sink as template  
Left Sink Bowl Dimensions:  
Sink Bowl Length (left-to-right): 16.31"  
Sink Bowl Width (front-to-back): 15.31"  
Sink Bowl Depth: 9.25"  
Right Sink Bowl Dimensions:  
Sink Bowl Length (left-to-right): 12"  
Sink Bowl Width (front-to-back): 15.31"  
Sink Bowl Depth: 9.25"  
Apron Front Depth: 10"  
Low Divide Height: 5.5"  
Drain hole compatible with 3.5" strainers or waste flanges  
To protect from damage, this model must be shipped on a pallet. (Cannot be shipped UPS)  
Codes/Standards: CSA B45.8-18/IAPMO Z403-2018

Optional Accessories

Sink Grid	237525
Floating Sink Grid	233530
Beech Cutting Board	235010
CapFlow Strainer Cover	517666

Warranty  
BLANCO offers a limited lifetime warranty on all sinks and faucets, as well as a one-year warranty on



Apron Sink specifications, required in order ensure accommodate for the millwork- note in our specification to refer to cutsheet for this info and millworker verify dimension prior to production



SPECIFICATIONS-EXAMPLE 1

MUNGE

NOBU TORONTO

P-801



KOHLER®

- Features**
- Rectangular basin.
  - Overflow drain.
  - No faucet holes; requires wall- or counter-mount faucet.
  - Coordinates with other products in the Kathryn collection.
- Material**
- Vitreous china.
- Installation**
- Undermount.
- Recommended Products/Accessories**
- K-23726 Drain treatment
  - K-23725 Cast iron cleaner
- Included Components**
- Additional Components:
- 1193643 Basin clamps

Kathryn®  
Undermount bathroom sink  
K-2330



ADA CSA B651 OBC

**Codes/Standards**

ASME A112.19.2/CSA B45.1  
ADA  
ICC/ANSI A117.1  
CSA B651  
OBC

**KOHLER® One-Year Limited Warranty**

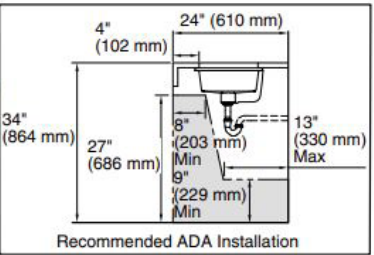
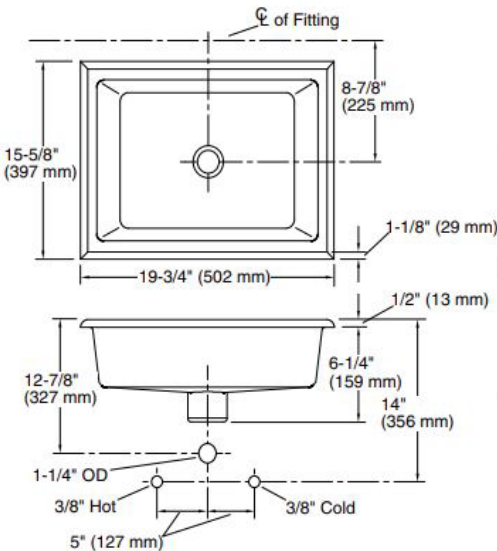
See website for detailed warranty information.

**Available Colors/Finishes**

Color tiles intended for reference only.

Color	Code	Description
	0	White
	96	Biscuit
	NY	Dune
	95	Ice™ Grey
	G9	Sandbar
	33	Mexican Sand™
	K4	Cashmere
	58	Thunder™ Grey
	7	Black Black™

KOHLER®



Kathryn®  
Undermount bathroom sink  
K-2330

**Issue Date:** Aug-20-21

**Area:** 800 Restaurant / Washroom

**Supplier:** Kohler  
<http://www.kohler.ca>  
[richard.good@kohler.com](mailto:richard.good@kohler.com)  
735 Caledonia Rd B1, York, Ontario, M6B 4B3, Canada

**Manufacturer:** Kohler

**Item Description:** Washroom Sink

**Product Name:** Kathryn Undermount Sink

**Model:** K-2330-7

**Finish:** Black / Matte

**Dims/Size:** Refer to cutsheet

**Designer Notes:**

- GC to provide coordinated shop drawings
- Suggested p-trap to be purchased together with sink. P-trap finish to be matte/brushed black
- Pop-up waste/drain to be in brushed matte black

**Instructions:** REFER TO STUDIO MUNGE INSTRUCTION BOOKLET FOR ALL DETAILS REGARDING PRODUCT AND MATERIALS

**Product Docs:** [p801\\_undermount\\_sink](#)  
04/28/2021

GREAT NOTE!

Colour specified on cutsheet, this would extend if there are multiple codes





# SPECIFICATIONS-EXAMPLE 2

PENDRY TAMPA

P-103




- Features**
- Adjustable rotation on tube outlet.
  - Slip-joint inlet.
  - Cleanout plug.
  - Flange.
- Material**
- Cast brass construction for durability and reliability.
- Recommended Products/Accessories**
- K-23726 Drain treatment
  - K-23723 Faucet cleaner



**Codes/Standards**  
ASME A112.18.2/CSA B125.2  
All applicable US Federal and State material regulations

**KOHLER® One-Year Limited Warranty**  
See website for detailed warranty information.

**Available Colors/Finishes**  
*Color tiles intended for reference only.*

Color	Code	Description
	CP	Polished Chrome
	AU	Polished Gold

**Kohler Custom Colour: BN - Vibrant Brushed Nickel**

**Issue Date:** Jul-02-21

**Issue Type:** Issued for 100% Design Development

**Area:** 100 HOTEL\_MUR

**Supplier:** Kohler  
<http://www.kohler.ca>  
[richard.good@kohler.com](mailto:richard.good@kohler.com)  
735 Caledonia Rd B1, York, Ontario, M6B 4B3, Canada

**Manufacturer:** Kohler

**Item Description:** Lavatory P-Trap

**Product Name:** Adjustable P-Trap with Tubing Outlet

**Model:** K-8998

**Finish:** BN - Vibrant Brushed Nickel

**Dims/Size:** Refer to Cutsheet

**Designer Notes:** - Mechanical engineer to advise and confirm P-trap size with specified drain

**Instructions:** REFER TO STUDIO MUNGE INSTRUCTION BOOKLET FOR ALL DETAILS REGARDING PRODUCT AND MATERIALS

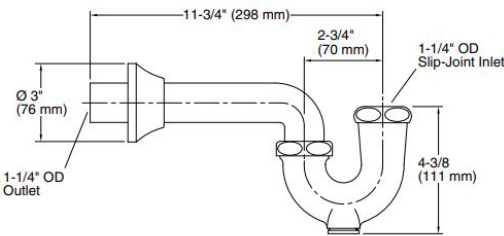
**Website Link:** [kohler](http://kohler.com)

**Product Docs:** [p103\\_kohler\\_adjustable\\_pttrap\\_cutsheet](#)  
07/01/2021

Another great note!  
Mechanical to ensure it works with their drain rough-in/ accommodate rough in to accommodate

**KOHLER**.Faucets

P-Trap  
K-8998



**Technical Information**  
All product dimensions are nominal.

**Notes**  
Install this product according to the installation guide.

CUTSHEET REQUIRED

SPECIFYING PLUMBING



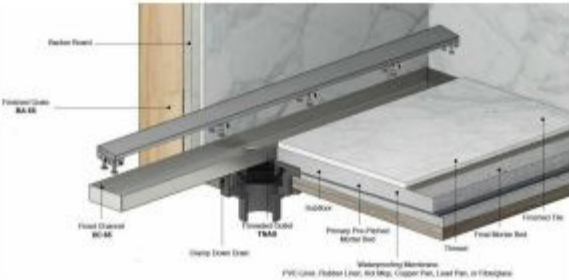


SPECIFICATIONS-EXAMPLE 3 -WALLCOVERING

PENDRY TAMPA

MUNGE

P-106



Issue Date: Jul-02-21  
Issue Type: Issued for 100% Design Development  
Area: 100 HOTEL\_MUR  
Supplier: Infinity Drain  
http://infinitydrain.com  
info@infinitydrain.com  
145 Dixon Avenue, Amityville, New York, 11701, United States

Item Description: Linear Shower Drain  
Product Name: 32" Complete Kit  
Model: FXSG 65 Series - 6532  
Finish: Custom: Satin Nickle  
Dims/Size: 32" Grate, 32" Stainless Steel Channel, and Stainless Steel Outlet  
Refer to ID Drawings

Designer Notes: - AOR & MEP to review specified product to ensure drain system meets building code and waterproofing requirements.  
- Flashing flange and flashing clamp is required  
- Rough-in and required components to be purchased together

Instructions: REFER TO STUDIO MUNGE INSTRUCTION BOOKLET FOR ALL DETAILS REGARDING PRODUCT AND MATERIALS

Website Link: infinitydrain  
Product Docs: p106\_infinitydrain\_fxsg65\_cutsheet  
07/01/2021

### FXSG 65 Series

Fixed Length

- FXSG 6532 - 32" Complete Kit
- FXSG 6536 - 36" Complete Kit
- FXSG 6542 - 42" Complete Kit
- FXSG 6548 - 48" Complete Kit
- FXSG 6560 - 60" Complete Kit

#### Features

- Pre-pitched channel with fixed lengths and fixed center outlets
- Indoor or outdoor use
- 16 gauge, 304L stainless steel channel
- 7 gauge - 3/16", 304L stainless steel grate
- Works with 2" clamp down floor with 2" throat/strainer size (NOT included)
- Compatible with: PVC Liner, Rubber Liner (Chloraloy®), Hot Mop, Lead Pan, Copper Pan, or Fiberglass
- Grate can be removed completely for cleaning
- Flow rate - 9 gpm per outlet
- Flow rate measured at outlet only. Measurement does not account for water in channel or sheeting on shower floor.

#### Installation

#### Care & Maintenance

FXSG 65 stainless steel linear drain top grates are made of 304L stainless steel. This material is non-porous, hygienic, rust-free and extremely durable. Bar Keepers Friend® and Soft Scrub® are commonly available products that can be used to protect and clean your Satin Stainless drain cover. For stains that have been left for an excessive amount of time, stronger cleaning agents such as Steel Brite® may be needed. For Polished Stainless and other finishes we recommend a mild soap and a soft cloth for cleaning. DO NOT use any abrasive cleaners, scrub pads or allow household cleaning agents, such as bleach, to sit on the drain cover for a long period of time. Stainless steel does not rust. External factors, such as contamination from other highly ferrous metals, built up road salt, sea salt, or chlorine may have caused "surface" rust which can be removed using Barkeepers Friend®, Soft Scrub® with Bleach, or Steel Brite®. Always follow the directions on the bottle. Follow proper maintenance procedures to prevent excessive surface rust. In areas of frequent exposure to salt, chlorine, and other chemical compounds, maintenance of the stainless grates should be performed at least 2-3 times per year.

145 Dixon Avenue  
Amityville, NY 11701  
Phone: 516.767.6786  
Fax: 516.740.3066  
www.infinitydrain.com

NOTE: Installer must verify all rough-in dimensions prior to installation and consult local and national codes. Conformity and compliance to local and national codes are the responsibility of the installer.

FM025-04-19

Dimensions are subject to manufacturer's tolerance and change without notice. We can assume no responsibility for use of superseded or void.

Page 1 of 3

Another great note!  
Mechanical to ensure it works  
with their drain rough-in/  
accommodate rough in to  
accommodate

### OPTIONAL COMPONENTS

TNAS-2	2" Long Stainless Steel Rescue Nipple
TNAS-3	3" Long Stainless Steel Rescue Nipple
TNAS-4	4" Long Stainless Steel Rescue Nipple
TNRN-5	Stainless Steel Extension Nipple
TNRN-P	PVC Extension Nipple
UCP 2	Universal 2" Clamping Plate
UCP 42	Universal Reducing Plate (Adapts 4" or 3" existing throat size to 2")
CDI 22	Clamp Down Drain, Cast Iron, 2" Throat, 2" No Hub Outlet
CDA 22	Clamp Down Drain, ABS, 2" Throat, 2" No Hub Outlet
CDP 22	Clamp Down Drain, PVC, 2" Throat, 2" No Hub Outlet
CDT 22	Clamp Down Drain, Cast Iron, 2" Throat, 2" Threaded Outlet
CDIC 22	Clamp Down Drain, Cast Iron, 2" Throat, 2" Inside Caulk Outlet
CDIS 22	Clamp Down Drain, Cast Iron, Integral Trap 2" Throat, 2" Threaded Side Outlet
CDIQ 42	Clamp Down Drain, Cast Iron, Side Outlet No Trap 4" Throat, 2" Outlet (for use with UCP 42)

### FXSG 65 CUSTOM

#### Custom Finishes

<input type="checkbox"/> Satin Stainless	<input type="checkbox"/> Polished Stainless	<input type="checkbox"/> Oil Rubbed Bronze	<input type="checkbox"/> Matte Black	<input type="checkbox"/> Matte White	<input type="checkbox"/> Satin Bronze
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NOTE: Custom color matching available upon request.

X-LENGTH: Overall Length of Channel (inches)

Desired finished dimension.

For lengths greater than 60", multiple grates are supplied, unless otherwise noted.

Y: OUTLET LOCATION: # of outlets | Center of Outlet(s) to right edge: Y1 Y2 Y3

RUSH: Yes NO  
Rush charge applied per set-up. Turnaround 10-15 business days, plus shipping. (Rush does not apply to some custom designs, please contact Infinity Drain for details.)

Customer: Job Name: Approved by: Date:

145 Dixon Avenue  
Amityville, NY 11701  
Phone: 516.767.6786  
Fax: 516.740.3066  
www.infinitydrain.com

NOTE: Installer must verify all rough-in dimensions prior to installation and consult local and national codes. Conformity and compliance to local and national codes are the responsibility of the installer.

12 CUTSHEET REQUIRED

SPECIFYING PLUMBING

# UNDERSTANDING COMPLIANCE AND WATER PRESSURE

## ADA/CSA

ADA/CSA compliance refers to the Americans/Canadian with Disabilities Act Standards for Accessible Design, which states that all electronic and information technology (like websites) must be accessible to people with disabilities

## PSI

**Pound per Square Inch—a unit of pressure used to describe the maximum recommended pressure to put on a pipe, fitting or valve**

Faucets: ASME codes require supply fittings to function at a minimum of 20 psi to 125 psi maximum (this includes metering and self-closing faucets).

Toilet Fill Valves: Kohler tests fill valves from 20 psi minimum to 80 psi maximum.

Gravity Toilet Tanks: ASME/CSA codes require a minimum of 20 psi to a maximum of 80 psi static.

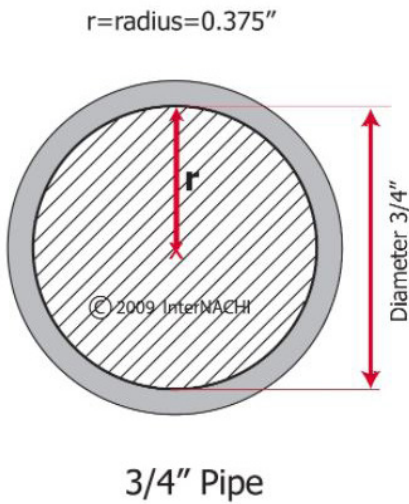
Electro-Hydraulic Toilets (Power Lite): ASME/CSA codes require a minimum of 20 psi to a maximum of 80 psi static.

Pressure Assist: 1.4 gpf requires a minimum of 20 psi and a maximum of 80 psi. 1.1 gpf or less require a minimum of 35 psi to a maximum of 80 psi static.

\*Flushometers: Siphonic flush bowl style requires 25 gpm at 35 psi minimum and 80 psi maximum static. Blow out flush bowl style requires 25 gpm at 45 psi and 80 psi maximum static.

[Via Kohler Support](#)

\*we as designers need to ensure compatability to ensure tangile responsible specifications in relation to our design



TYPICALSERVICE

### ***NADIA! WHY DOES THIS MATTER?***

It MATTERS because we have to bare in mind the PSI and service requirements to support our plumbing choices and experiences! ESPECIALLY for spa systems we specify!

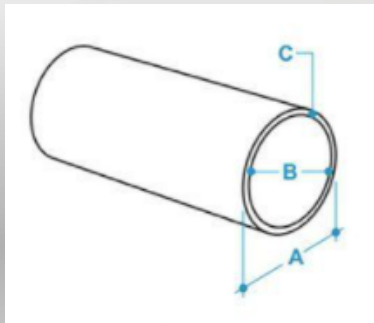
By integrating an experience, there may need to be mechanical accommodations needed to support. This most likely results in an increase service!

Project Managers and Project Leads need the research and evidence in order to communicate these needs to our clients and corresponding consultants! Our suppliers are the best tools to procure this information!



To make this system work all together, we need to accommodate for a 1" service to ensure that everything can function @ the same time. If we do not change, cannot function @ the same time!

Client needs to be advise of this in order to account for it in mechanical scope!



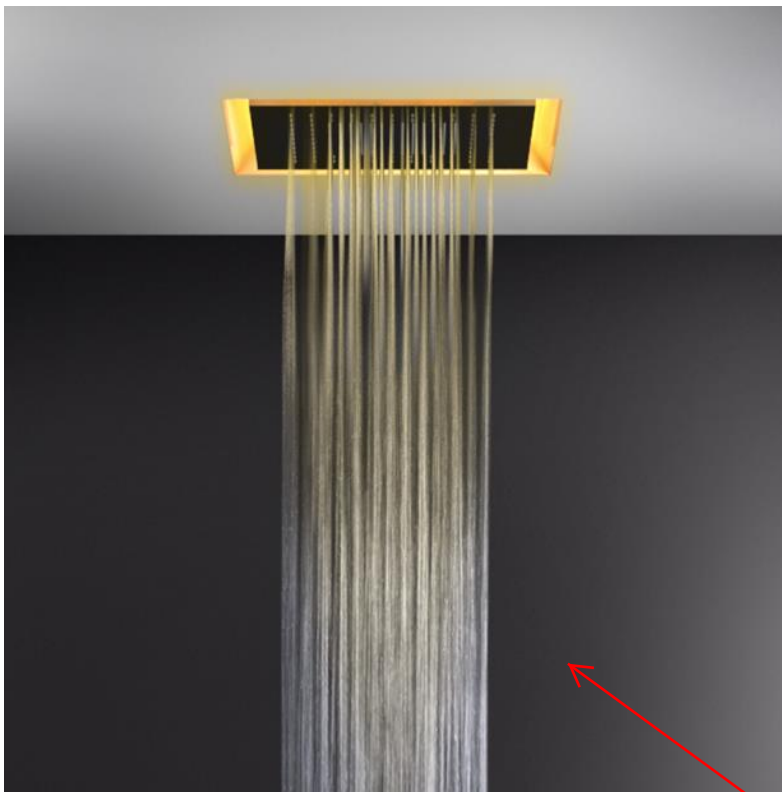
# YORKVILLE LUXURY CONDO

GESSI / STUDIO MUNGE  
TRANSITIONAL



# SHOWER SYSTEMS

AFILO



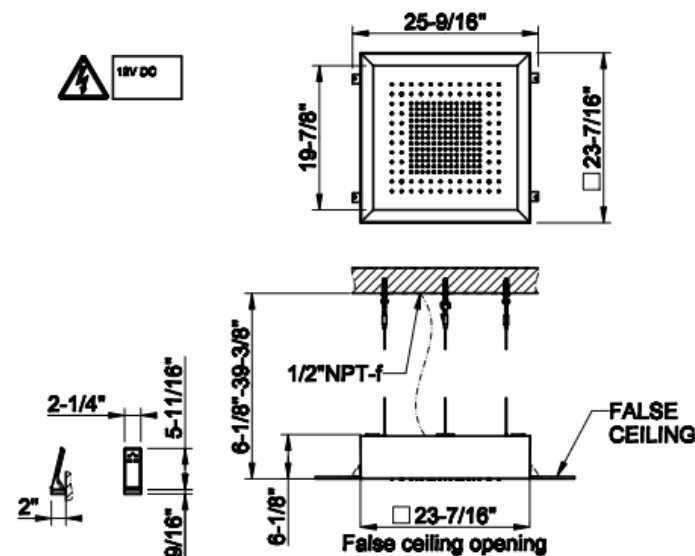
ART # **57012** → Cover for  
23-7/16" shower system

Finish → 238



ART # 57501 → Built-in shower system

Finish → 238



## FINISHING:

238: MIRROR STEEL

ART # **RIR5402** → Power supply  
CE 30 watt DIN rail. Input voltage  
100-240VAC. Output voltage

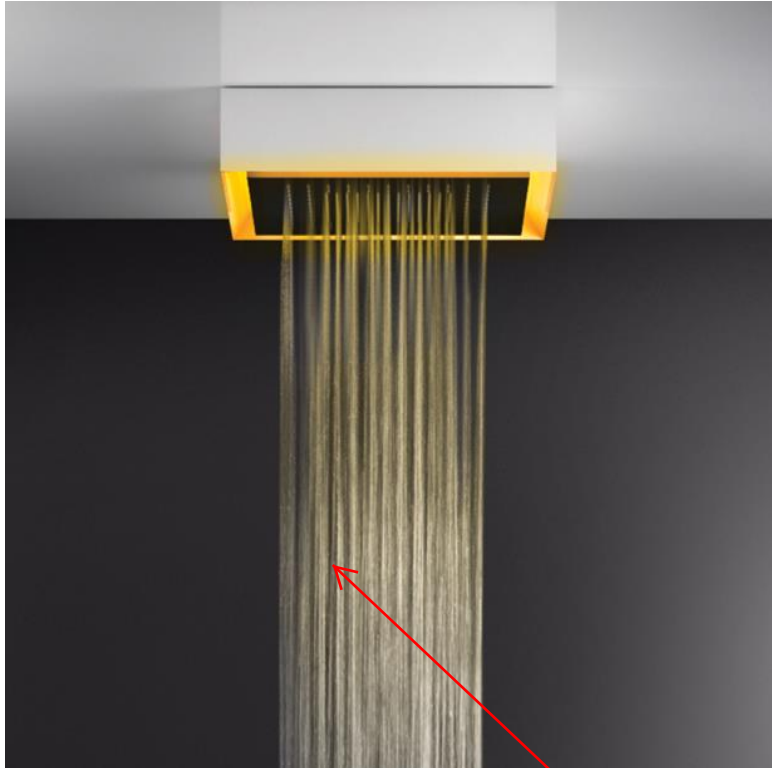


Option #1 of flush mounted(preferred) can we accommodate this? Is there a concrete slab we have to account for?

# SHOWER SYSTEMS



AFILO



ART # 57012 → Cover for 23-7/16" shower system

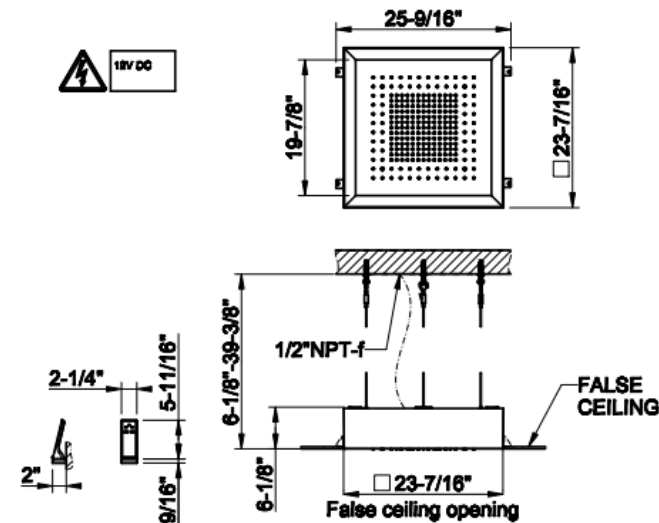
Finish → 238



Noting keyboard control which requires electrical coordination

ART # 57503 → Surface-mounted shower system

Finish → 238



FINISHING:

238: MIRROR STEEL

ART # RIR5255 → Capacitive keyboard for chromotherapy control with IP connector



Option #2 of Surface Mounted to accommodate site condition eg. Concrete ceiling

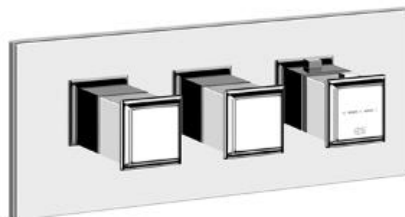
# BATH FAUCETS

# GESSI®

FASCINO

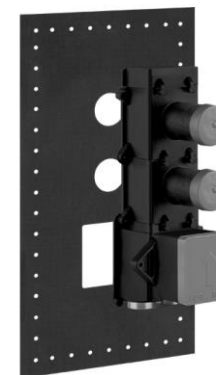
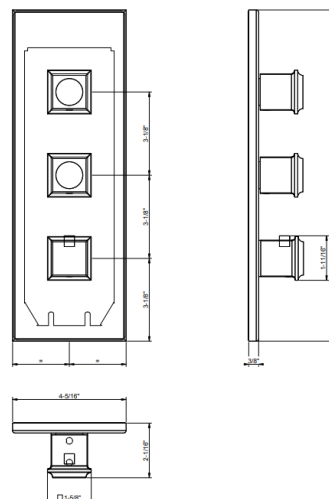
FINISHING:

031: CHROME



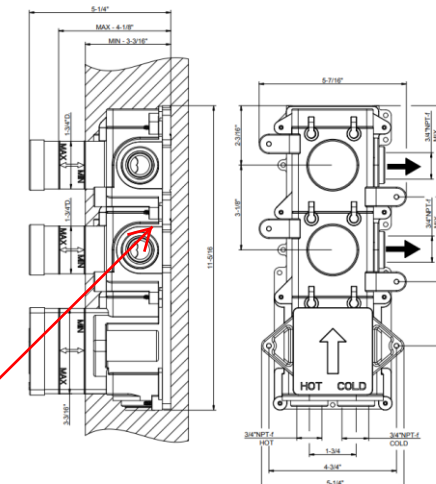
Finish → 031

ART # 48204 → External parts for  
thermostatic mixer with 2 volume controls



Finish → 031

ART # 39693 → In-wall  
thermostatic rough valve



Detail of Valve for coordination

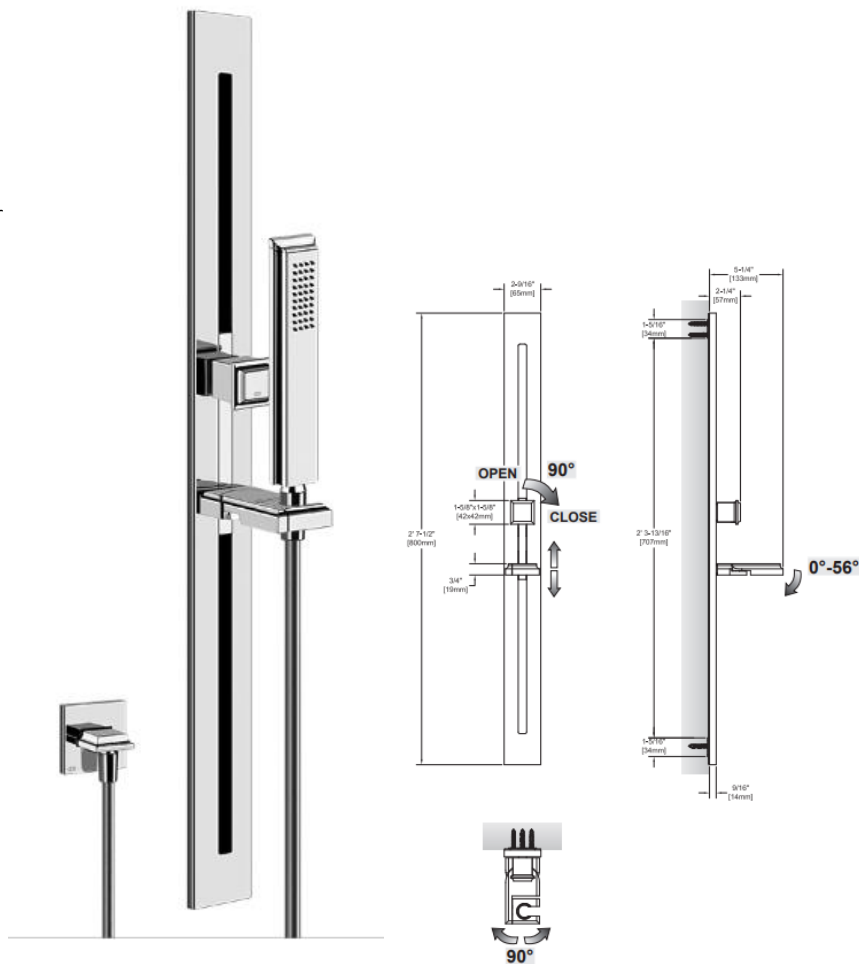


## HANDSHOWER SETS

### FASCINO

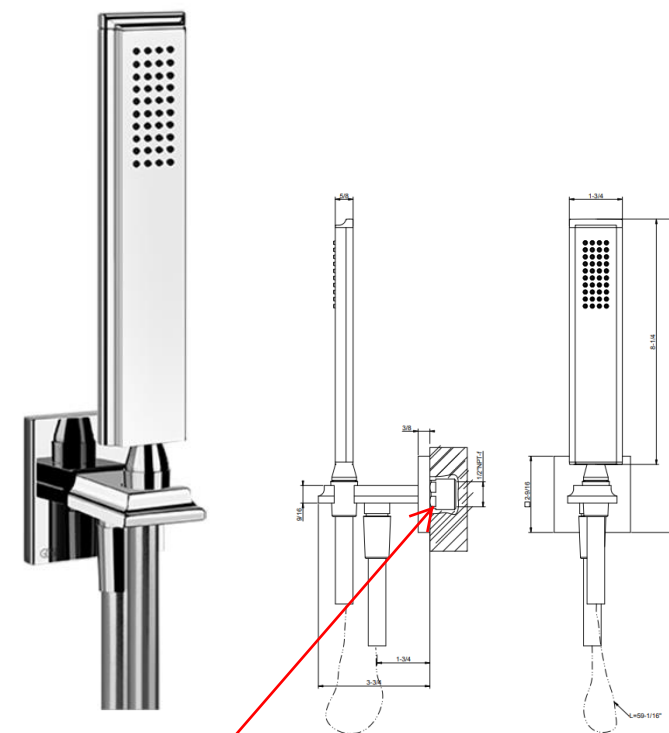
ART # 48144 → Handshower and adjustable sliding rail set

Finish → 031



ART # 48123 → Handshower set – fixed hook

Finish → 707



**FINISHING:**

**031: CHROME**

Detail of Valve for coordination

# BATH FAUCETS + BODY JETS

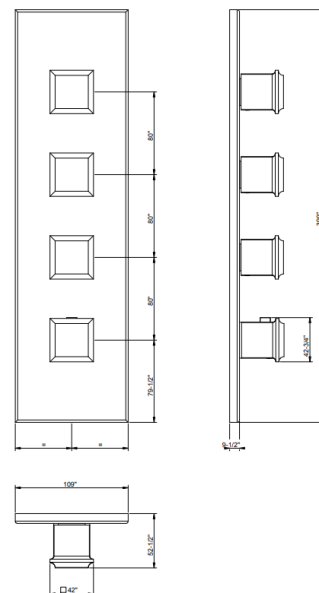
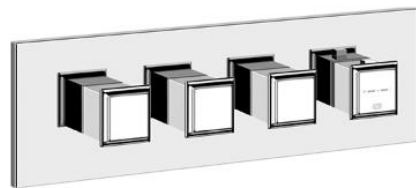
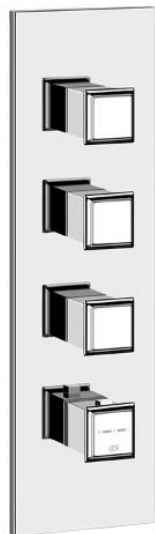


FASCINO

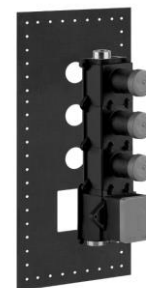
FINISHING:

031: CHROME

ART # 48206 → External parts for  
thermostatic with 3 volume controls



Finish → 031



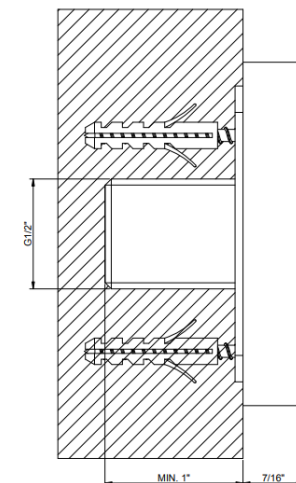
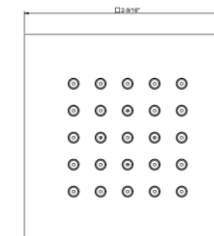
ART # 39695 → In-wall  
thermostatic rough  
valve

Finish → 031



ART # 32973 →  
Square body spray

Finish → 031



# BATH FAUCETS

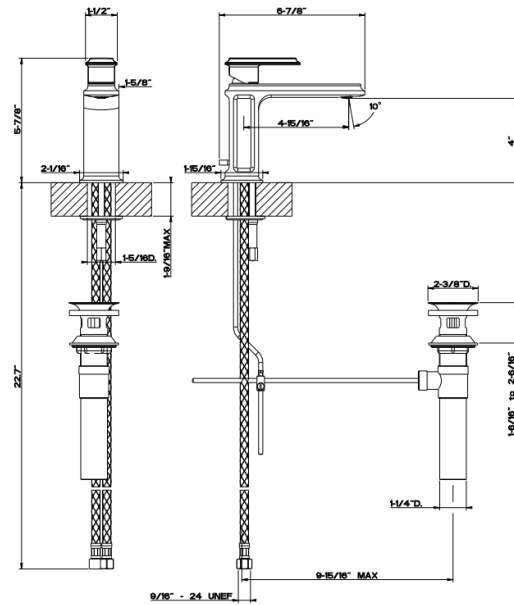
**GESSI®**

## FASCINO

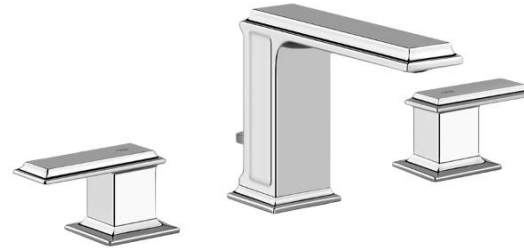


Finish → 031

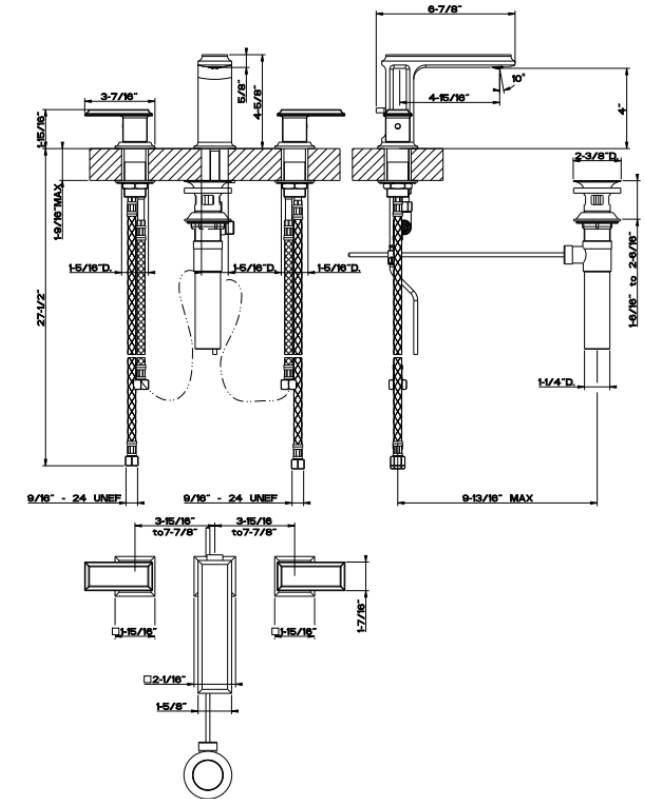
ART # 48001 → Single lever washbasin mixer with pop-up assembly



ART # 48012 → Widespread washbasin mixer with pop-up assembly



Finish → 031



FINISHING:

031: CHROME



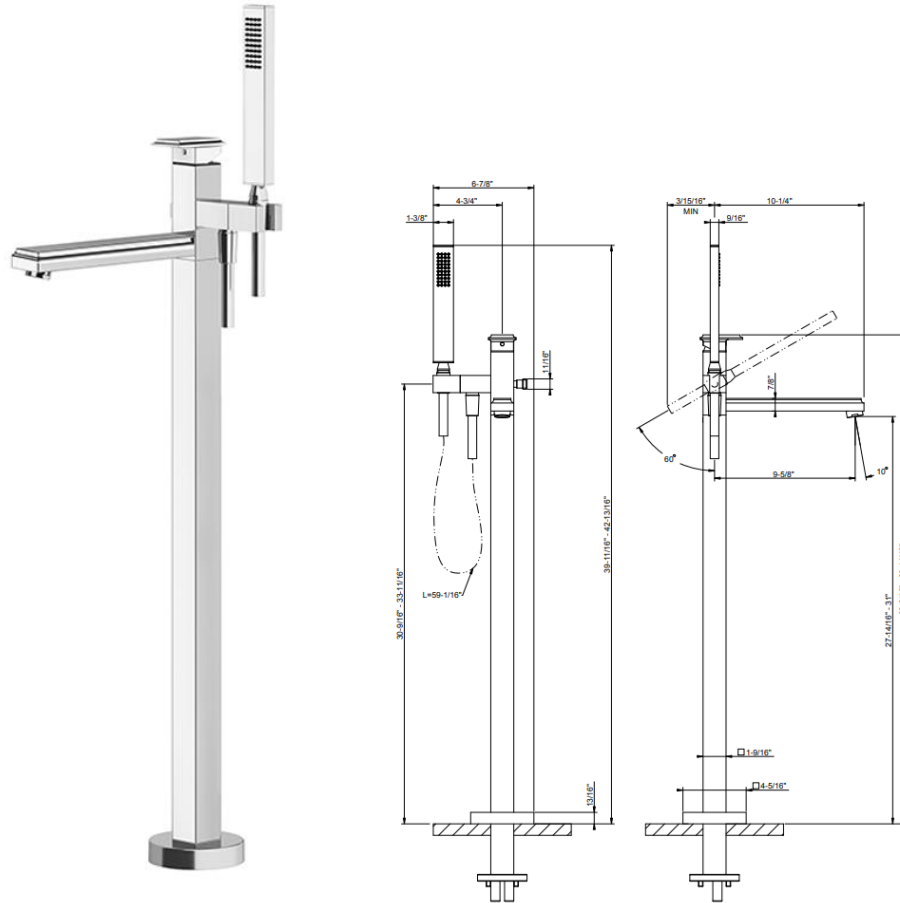
# BATH FAUCETS

**GESSI®**

## FASCINO

ART 48131 → Floor-mounted tub filler

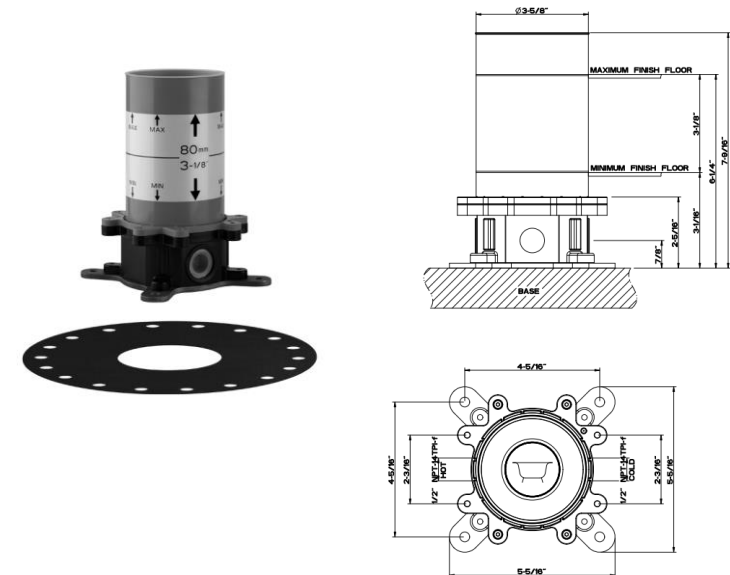
Finish → 031



**FINISHING:**

**031: CHROME**

ART # 48189 → Floor-mounted tub filler in-rough valve





IF YOU HAVE ANY QUESTION ABOUT THOSE SPECIFICATIONS,  
PLEASE CONNECT WITH OUR RESOURCE SPECIALIST.

THANK YOU  
太感谢了  
GRACIAS  
धन्यवाद  
OBRIGADO  
MERCI  
اركش  
Благодарность  
ありがとう  
DANKE  
감사 해요  
הודות  
GRAZIE

