

## WATERLESS URINAL SITE ASSESSMENT

### IDENTIFY CRITICAL INFORMATION

- Identify if facility has LEED/Green Expert.
- Identify current urinal gallons per flush.
- Look for leaking flush valves or other issues (e.g., odor).
- Obtain critical measurements to determine the appropriate Falcon Waterfree® urinal to cover the footprint of the existing urinals and the correct height for installation.
  - Drain and lip height of existing urinal.
  - Width and height of existing urinal.
- If drain height adjustment is required, assess wall condition to determine need for repairs.

### ASSESS DWV SYSTEM

- Assess in-wall plumbing to verify code compliance for downhill slope, venting and DWV material. Waterfree urinals are suitable for installation on all DWV except copper.
- Confirm that copper is not being used for any portion of the DWV system associated with the waterless urinal. If copper is present, do not install waterless urinal.

### RESEARCH & PROVIDE SAVINGS ANALYSIS

- Research water / sewage rate for facility.
- Provide cost savings analysis to a facility manager with mutually agreed upon assumptions, such as the number of users and operating days per year.

## PREPARATION AND INSTALLATION

### DRAIN LINE PREPARATION

- Waterfree urinals must be installed on clean drain pipes that are free of obstructions and mineral build up.
- Confirm that copper is not being used for any portion of the DWV system associated with the waterless urinal. If copper is present, do not install waterless urinal.
- Drain pipes must have proper slope to allow complete drainage of liquid through the piping system after each use.

### INSTALLATION OF URINAL

- Full weight of the urinal should be supported by the uni-bracket, never on the tall pipe of the urinal housing.
- Install urinal in accordance with manufacturer's instructions for optimal performance.

## ONGOING CUSTODIAL CARE OF URINAL

### PURCHASE THE PROPER SUPPLIES

- Order foam housing cleaner and urinal brush to facilitate easier cleaning.

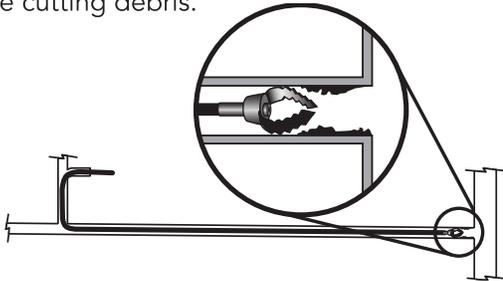
### ENSURE PROPER MAINTENANCE

- Custodians should watch the online maintenance video for training. One sheet custodial aid on the proper care of urinals should be provided to custodial staff for reference and placed in janitorial closets
- During cartridge change out-procedure, it is vital to flush the system with 3-5 gallons of water when the cartridge is removed from the urinal.
- Prime the new cartridge with water prior to pouring sealant into the cartridge, per cartridge change instructions.

## IMPORTANT INSTALLATION INFORMATION

### WE HIGHLY RECOMMEND CLEANING DRAIN PIPES PRIOR TO INSTALLATION!

- It is crucial that waterfree urinals be installed on clean drain pipes, free of obstructions and mineral buildup.
- Clean 25-35 feet deep, to the main stack if possible.
- Thoroughly flush the drain lines with water to remove cutting debris.



- Drain pipes should also have proper slope, to allow complete drainage of liquid through the piping system after each use.
- As with any other gravity drainage system, standing liquid left in the piping system due to obstructions, mineral buildup or improperly sloped pipes, could result in future clogs.

### RECOMMENDED EQUIPMENT, CABLES AND CUTTERS

- Floor model drain machine with 75' of 3/8" cable, drop head fitting and 2" pipe side cutter blades.
- Larger cables and cutters are preferred to remove mineral buildup in 2" piping, but tight turns in drain lines may prevent their use in some cases.
- In case of severe buildup, smaller cables and cutters may need to be used first, to open up the drain lines before moving on to larger cables and cutters.

### CAUTION!

- **OVERAGGRESSIVE CLEANING:** As with any other drain cleaning procedure, care must be taken not to cause damage to fragile piping systems.
- **EVERY DRAIN CLEANING OPERATION IS UNIQUE;** therefore it is up to the technician performing the job to choose the proper equipment.

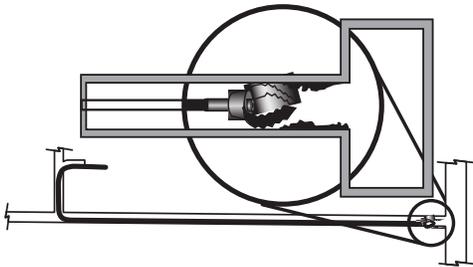


PHOTO	CUTTER	APPLICATIONS	CABLE
	DOWN HEAD FITTING	Guides cutter down the waste (not up stack)	5/16" 3/8"
	FLEXIBLE SPRING ARROW HEAD	Flex starting drill for sharp turns	5/16" 3/8"
	ARROW HEAD	Starting drill (gets water flowing)	5/16" 3/8" +
	BORING GIMLET	Removes clogs and objects	5/16" 3/8"
	1-1/4" PIPE SLIDE CUTTER BLADES	For cutting and scraping	5/16" 3/8"
	1-1/2" PIPE SLIDE CUTTER BLADES	For cutting and scraping	3/8" +
	2" PIPE SIDE CUTTER BLADES	For cutting and scraping	3/8" +
	2" PIPE U-CUTTER	For cutting and scraping	3/8" +

## INFORMACIÓN DE INSTALACIÓN IMPORTANTE

### ¡RECOMENDAMOS AMPLIAMENTE LIMPIAR LA TUBERÍA DE DRENAJE ANTES DE LA INSTALACIÓN!

- Es esencial que los orinales sin agua se instalen en tuberías de drenaje limpias, sin obstrucciones ni incrustaciones de minerales.
- Limpie hasta 7.62 ó 10.6 metros (25 ó 35 pies) de profundidad, de ser posible hasta la tubería de escape principal.
- Enjuague a fondo las tuberías de drenaje con agua para eliminar los residuos de corte.



- Las tuberías de drenaje deben tener una inclinación apropiada para permitir el drenaje completo del líquido a través del sistema de tuberías después de cada uso.
- Al igual que con cualquier otro sistema de drenaje por gravedad, el líquido que permanece dentro del sistema de tubería debido a obstrucciones, incrustaciones de minerales o tuberías con una inclinación inadecuada, pueden taparse en el futuro.

### EQUIPO, CABLES Y CORTADORES RECOMENDADOS

- Máquina de drenaje de piso con cable de 22.8 m de largo (75 pies) de 3/8 pulg., accesorio de cabeza abatible y cuchillas laterales para tubería de 2 pulg.
- Para eliminar las incrustaciones de minerales en tuberías de 2 pulg. se prefieren cuchillas y cables más largos, sin embargo, los giros cerrados de la tubería de drenaje podrían evitar el uso en algunos casos.
- En caso de incrustaciones severas, podrían necesitarse primero cuchillas y cables más pequeños para abrir la tubería de drenaje antes de usar cables y cuchillas más grandes.

### PRECAUCIÓN

- LIMPIEZA DEMASIADO AGRESIVA: Al igual que con cualquier otro procedimiento de limpieza de drenajes, debe tenerse cuidado de no provocar daños a los sistemas de tuberías frágiles.
- CADA OPERACIÓN DE LIMPIEZA DE DRENAJES ES ÚNICA; por lo tanto, la selección del equipo apropiado depende del técnico que realiza el trabajo.



FOTO	CORTADOR	APLICACIONES	CABLE
	ACCESORIO DE CABEZA ABATIBLE	Guia el cortador hacia abajo (no hacia arriba)	5/16" 3/8"
	CABEZA DE FECHA FLEXIBLE	Perforador inicial flexible para giros cerrados	5/16" 3/8"
	CABEZA DE FLECHA	Perforador inicial (para que el agua fluya)	5/16" 3/8" +
	BARRENA PERFORADORA	Elimina obstrucciones y objetos	5/16" 3/8"
	CUCHILLAS LATERALES PARA TUBERIA DE 1-1/4 PULG.	Para cortar y raspar	5/16" 3/8"
	CORTADOR EN U PARA TUBERIA DE 1-1/2 PULG.	Para cortar y raspar	3/8" +
	CUCHILLAS LATERALES PARA TUBERIA DE 2 PULG.	Para cortar y raspar	3/8" +
	CORTADOR EN U PARA TUBERIA DE 2 PULG.	Para cortar y raspar	3/8" +