A plumbing waste arm with clean out has a waste arm adapted to connect to a wall drain pipe at one end and a clean out end at an opposite end. The clean out end has a threaded portion that engages with a cleanout portion cover to removably seal the clean out end. A vertical portion is disposed between the wall drain pipe end and the clean out end and connects to a p-trap using a slip nut. In use, a user removes the cap and feeds a snake in through the clean out opening. The clean out end may be angled to allow use in plumbing configurations where the p-trap is in the way of the clean out portion. The threaded portion may have exterior threads with a cap or interior threads with a plug.
PLUMBING WASTE ARM WITH CLEAN OUT

BACKGROUND OF THE INVENTION

Almost everyone has had a problem with a drain and most often it is due to a clogged drain. One known method of clearing a drain, is to insert a device known as a snake in the drain system and to rotate it until the clog is cleared. In order to use a snake, it is generally necessary to dismantle the drain system to be able to send the snake into the drain system.

There is a need for an easy to install plumbing cleanout that allows a user to access a drain in order to unclg and clean out the pipe without having to dismantle the installed plumbing.

SUMMARY OF THE INVENTION

A plumbing waste arm with clean out has a waste arm adapted to connect to a wall drain pipe at one end and a clean out end at an opposite end. The clean out end has a threaded portion that engages with a cleanout portion cover to removably seal the clean out end. A vertical portion is disposed between the wall drain pipe end and the clean out end and connects to a p-trap using a slip nut. In use, a user removes the cap and feeds a snake into the cleanout opening. The cleaning end may be angled to allow use in plumbing configurations where the p-trap is in the way of the cleanout portion. The threaded portion may have external threads with a cap or interior threads with a plug.

Other features and advantages of the present invention will become apparent from the following description of the invention which refers to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side view of a waste arm with clean out according to an embodiment of the present invention.

FIG. 2 is a perspective view of the waste arm with clean out shown in FIG. 1.

FIG. 3 is a perspective view of the waste arm with clean out shown in FIG. 1 attached to a p-trap.

FIG. 4 is a perspective view of a waste arm with clean out having an angled access according to an embodiment of the present invention.

FIG. 5 is a perspective view of the waste arm with clean out shown in FIG. 3 attached to a p-trap.

FIG. 6 is a side view of a waste arm with clean out having another angled access according to an embodiment of the present invention.

FIG. 7 is a side view of the waste arm with clean out shown in FIG. 1 showing threaded portion.

FIG. 8 is a side view of a waste arm with clean out according to an embodiment of the invention.

FIG. 9 is a perspective view of the waste arm with clean out with plug inserted therein.

DETAILED DESCRIPTION OF THE INVENTION

In the following detailed description of the invention, reference is made to the drawings in which reference numerals refer to like elements, and which are intended to show by way of illustration specific embodiments in which the invention may be practiced. It is understood that other embodiments may be utilized and that structural changes may be made without departing from the scope and spirit of the invention.

Referring to FIGS. 1-3, a waste arm with clean out 100 is shown having a waste arm portion 110 with a vertical portion 160 and a clean out portion 150. Waste arm portion 110 is installed to a wall waste drain (not shown) using a slip nut (not shown) as is known in the art. Of course other methods of attaching waste arm portion to wall waste drain such as, but not limited to compression fittings, pipe adhesives, solder, etc. Vertical portion 160 attaches to a p-trap 140 with a vertical portion 160 and a slip joint nut 120 as is known in the art. Of course other joining methods could be used such as, but not limited to solder, pipe adhesives etc.

A clean out portion 165 is provided to allow a user to remove a clean out cap 130 and insert a clean out device such as a snake (not shown) to clean and clean out the drain. Clean out portion 165 is in line with waste arm 110. This embodiment is used in p-trap configurations where there is room to install this in-line embodiment and still reach clean out portion 165 without conflict. In some drain configurations, there is not enough room to allow for the in-line embodiment shown in FIGS. 1 and 2.

Referring now to FIGS. 4 and 5, a drain configuration is shown where there is not enough room to install the in-line embodiment shown in FIGS. 1-3 due to conflicting arrangement of p-trap 140. An offset clean out portion 150 is shown angled to allow the user to insert the snake as discussed above. A waste arm 112 has vertical portion 160 that attaches to p-trap 140 and offset clean out portion 150 with clean out cap 130. It should be understood that the angle of the off-set may be chosen to accommodate different installation situations. Although the angle is shown bending off to the right, the angle may be to the left or even up, down or a combination thereof.

Now referring to FIG. 6, a waste arm 114 is shown having an angled clean out portion 152 which is angle down. Again, as discussed above, the angled embodiments are used to provide easy access to clean out portion even when there is limited space in a particular plumbing installation.

Referring now to FIG. 7, clean out cap 130 is shown fitting over a threaded portion 170. In use, clean out cap 130 is removed and a cleanout tool such as a snake is inserted. Threaded portion 170 is disposed on an external portion of clean out portion 150 so that threaded portion 170 is not damaged when inserting the cleanout tool. Of course other caps may be used as long as it provides a removable water tight seal to allow a user to clean out the drain without dismantling the p-trap or other plumbing. Cap 130 is hexagonal to allow a user to use a wrench if needed but other shaped caps may be used as long as a removable water tight seal is provided.

Now referring to FIG. 8, a waste arm with clean out 300 is shown having a waste arm 116 that connects to a wall waste pipe (not shown) and threaded portion 170 and cleanout end 167 at an opposite end. Vertical portion 160 connects to p-trap 140 (FIG. 3) using slip nut 120. In this embodiment, waste arm and cleanout portion do not have an upper radius between the vertical portion and allows for a straight through insertion of the plumbing clean out tool. Of course it should be apparent to a person skilled in the art that this embodiment can be combined with the offset embodiments without departing from the spirit of this disclosure.

Referring to FIG. 9, waste arm with cleanout 100 is shown having a pipe plug 180 inserted in cleanout portion 165. The plug fits in a threaded port therein and provides access to waste arm 110 to clear the clog without having to
dis-assemble the rest of the plumbing. Additionally, it is possible to have an internally threaded portion as well as an externally threaded portion so that the user could use either a cap or a plug to removably cover the cleanout portion without having to dis-assemble the rest of the plumbing.

[0022] Plumbing waste arm with cleanout is made from PVC pipe as is known in the art. Of course other materials may be used such as, but not limited to brass, copper, stainless steel or material.

[0023] Although the instant invention has been described in relation to particular embodiments thereof, many other variations and modifications and other uses will become apparent to those skilled in the art.

What is claimed is:

1. A plumbing waste arm with clean out for use with a p-trap comprising:
   a waste arm portion having a waste pipe connecting end;
   said waste arm connecting end adapted to connect to a wall waste pipe;
   said waste arm portion having a clean out end;
   said clean out end having a threaded portion therein;
   a cleanout portion cover removably connected to said threaded portion wherein a clean out tool is inserted through said clean out end when said cleanout portion cover is removed;
   a vertical portion disposed between said waster arm connecting end and said clean out end; and
   said vertical portion adapted to attach to a p-trap.

2. The plumbing waste arm with clean out for use with a p-trap according to claim 1 further comprising a slip nut adapted to fit over a lower portion of said vertical portion and to threadedly engage said p-trap.

3. The plumbing waste arm with clean out for use with a p-trap according to claim 1 wherein said waste arm with clean out is made of poly (vinyl chloride).

4. The plumbing waste arm with clean out for use with a p-trap according to claim 1 wherein said clean out end is offset with respect to said waste arm portion wherein access to said clean out is enhanced in installations where said p-trap prevents access.

5. The plumbing waste arm with clean out for use with a p-trap according to claim 4 wherein said offset is between 30 to 45 degrees with respect to said waste arm portion.

6. The plumbing waste arm with clean out for use with a p-trap according to claim 4 wherein said offset is between -30 to -45 degrees with respect to said waste arm portion.

7. The plumbing waste arm with clean out for use with a p-trap according to claim wherein said threaded portion is an externally threaded portion and said cleanout portion cover is a cap.

8. The plumbing waste arm with clean out for use with a p-trap according to claim wherein said threaded portion is an internally threaded portion and said cleanout portion cover is a plug.

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