

ashirvad

by aliaxis

SPECIALTY PRODUCTS — A Class Apart —



Concealed Diverters



Concealed Flush Valves



Concealed Valves

10
YEARS
SERVICE
WARRANTY
★★★★★



Pan Connectors



Bottle Traps &
Waste Couplings



Y-Strainer



A Class Apart

Ashirvad is a licensee of Lubrizol - USA,
manufacturing and marketing FLOWGUARD® PLUS™
CPVC (Chlorinated Polyvinyl Chloride) hot and cold
water plumbing systems in India.

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Water - In all its forms,
a precious gift to life around,
ever flowing, never stopping,
always forward bound.

From the sky, from the rivers,
from the lakes around
Bringing joy, bringing cheer
abundant & profound
Water, water everywhere,
happiness abound

“Khushiyon ke rang - paani ke sang”

be **water happy**[™]



ashirvad

160MM O.D. S.W.R. SILENT PLUS PIPES 10dB/2LPS TESTED TO EN 14366.

ashirvad

110MM O.D. S.W.R. SILENT PIPES 13dB/2LPS TESTED TO EN 14366.

+ **ashirvad** SDR 11 **FLOWGUARD™ PLUS**

+ **ashirvad** SDR 11 **FLOWGUARD™ PLUS**

ashirvad

AQUALIFE™ (DN 20mm) 3/4" uPVC ASTM - D - 1785 SCHED 40 LEAD FREE

ashirvad

SUPER HEAVY CLASS

ashirvad

STANDARD CLASS



About Ashirvad

Ashirvad an Aliaxis group company, setup its Bengaluru unit in 1998 and is a wholly owned company of Aliaxis group. Aliaxis group is a global leading manufacturer and distributor of plastic fluid handling systems used in residential, commercial and industrial buildings. Aliaxis, headquartered in Brussels and is present over 45 countries with more than 100 manufacturing and commercial entities, employs over 16,000 people and generates more than 3 billion Euro (₹ 21, 600 crores approx) in annual sales.

Ashirvad has always been relentless in its commitment to quality and services. Ashirvad pipes is a leading manufacturer and supplier of CPVC, uPVC, SWR plumbing systems and also the pioneer in designing and manufacturing of uPVC column pipes, which are used in the erection of submersible borehole pumps. Today Ashirvad Pipes is the world's largest manufacturer of uPVC column pipes and successfully exporting to 40+ countries. The CPVC Hot and Cold plumbing system is manufactured in collaboration with Lubrizol, USA.

Ashirvad is an ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018 certified company with a constant endeavour towards achieving the highest level of customer satisfaction.

Ashirvad, with a determination to be a one-stop-shop for Plumbing, Agriculture, Sanitary, High-rise and Fire Safety solutions, has recently expanded its product range and successfully introduced Agri Pipe, Casing Pipe, BlazeMaster® Pipes & Fittings by Ashirvad.

Capabilities:

- Manufacturing capacity of more than 2,00,000 MT per annum
- Total factory area of 50 acres
- 500+ Strong Sales & marketing staff across India
- Strong team of 205 at corporate office
- Over 4,500 manufacturing workforce
- 17 warehouses, 1,100 distributors, 53,000 dealers across India
- Exporting Column Pipes to more than 40 countries
- 2 factories in Bengaluru and another one in Bhiwadi (Rajasthan) near Delhi



In 2007, Ashirvad won the National Award for "OUTSTANDING ENTREPRENEURSHIP IN MEDIUM ENTERPRISES"

The award was presented by the Prime Minister of India.



WCRC Leaders Summit - 2014

Ashirvad Pipes

"One Of The 100 Fastest Growing Marketing Brands In Asia"

(Evaluated and selected by KPMG)
The Global Audit Firm



Construction Industry Database (CIDC) - 2016 Has been enlisted as an **Approved Vendor** for providing the following Services / Products
Manufacturing of
CPVC & uPVC Pipes & Fittings

Certifications

intertek
Test Quality. Assured.

CERTIFICATE OF REGISTRATION

This is to certify that the management system of **Ashirvad Pipes Pvt. Ltd.**

Site 1: Plot No. 4-B, 26 & 26-B Attibele Industrial Area, Hosur Road, Bangalore - 562107, Karnataka, India
 Site 2: Plot No. 27-A, 28-A, 29-A, 30, Bommasandra-Igani Link Road, Industrial Area, Igani Hobli, Ankal Taluk, Bangalore - 560055, Karnataka, India
 Site 3: Plot No. SP1-177 & 178, Kaban Industrial Area, Bhiwadi Extension, Dist. Alwar - 301025 Rajasthan, India

has been registered by Intertek as conforming to the requirements of **ISO 45001:2018**

OHAS 18001:2007 certified from 20 July 2017 to 27 February 2019.

The management system is applicable to: Manufacture and Supply of uPVC & CPVC Pipes and Fittings and Solvent Cement for Industrial, Domestic, Agriculture, Sewage Applications.

Certificate Number: 0087730
 Initial Certification Date: 20 July 2017
 Date of Certification Decision: 27 February 2019
 Issuing Date: 28 February 2019
 Valid until: 28 February 2022

U.K.A.S. ISO 45001:2018

Calin Moldoveanu
President Business Assurance

Intertek Certification Limited, 15A Victory Park, Victory Road, Telford, Shropshire, TF11 8BE, United Kingdom

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has been registered by Intertek as conforming to the requirements of **ISO 9001:2015**

The management system is applicable to: Manufacture and Supply of uPVC & CPVC Pipes and Fittings and Solvent Cement for Industrial, Domestic, Agriculture, Sewage Applications.

Certificate Number: 0087727
 Initial Certification Date: 20 April 2013
 Date of Certification Decision: 27 February 2019
 Issuing Date: 28 February 2019
 Valid until: 28 February 2022

U.K.A.S. ISO 9001:2015

Calin Moldoveanu
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भारत सरकार
GOVERNMENT OF INDIA
सहानियम एवं उद्योग मंत्रालय
MINISTRY OF COMMERCE & INDUSTRY
विदेश व्यापार मानदिसालय
DIRECTORATE GENERAL OF FOREIGN TRADE
एक स्टार प्रमाण पत्र
Certificate of Recognition
एक स्टार निर्यात सचन
ONE STAR EXPORT HOUSE

आशिरवाद प्राइवेट लिमिटेड
ASHIRVAD PIPES PVT. LTD.
4-B, ATTIBELE INDUSTRIAL AREA, HOSUR ROAD, BANGALORE-562107, KARNATAKA, INDIA

REGISTRATION NO: AAATB04310

Our Ref: INDO/L-4497178
 Date: 18 Feb 2014

Subject: RENEWAL OF CERTIFICATION MARKS LICENCE No. CML-3322639
 AS PER IS 15778:2007
 FOR ASHIRVAD PIPES PVT LTD
 4-B, ATTIBELE INDUSTRIAL AREA, HOSUR ROAD, BANGALORE-562107, DIST. BANGALORE URBAN, KARNATAKA.

Dear Sir,
 With reference to your application for renewal of the above mentioned Certification Marks License, we are pleased to inform you that it has been renewed from 22/02/2014 to 21/02/2015.

It may please be noted that your license shall expire at the end of the above mentioned period. You are, therefore, requested to send your application for its renewal at least two months before the expiry of the license.

The endorsement sheet No.4 regarding renewal of license is enclosed. This may be annexed to the original license document available with you.

You are also requested to subscribe to our monthly Technical Journal 'Handbook India' and also make use to publicize your product through advertisements. The details of advertisement charges and subscription rates are available in our website www.dgft.org.in

Yours faithfully,
 (Signature)
 SCIENTIST-E

पञ्जाब चॅम्बर ऑफ़ इन्डस्ट्रीज
BUREAU OF INDIAN STANDARDS
PAN No. : AAATB04310

श्रीमान अशिरवाद प्राइवेट लिमिटेड
श्रीमान अशिरवाद प्राइवेट लिमिटेड
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 (Signature)
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संजय इन्स्टीट्यूट ऑफ़ प्लास्टिक्स इंजीनियरिंग एण्ड टेक्नोलॉजी
CENTRAL INSTITUTE OF PLASTICS ENGINEERING & TECHNOLOGY
Plastics Testing Centre
No.: 0125322

Report No: 18020661
 PART - C

TEST RESULT IN (AS PER IS 15778:2007)

Sl. No.	Class	Test	Specified Requirement	Results obtained
01	CPVC Pipe - DN 20 mm, SDR 11, Class 1	Effect on water	Max. ppm by Mass	
		Lead or Pb, ppm (Total Extraction)	1.5 mg/ltr	0.019
		Cadmium as Cd, ppm (Total extraction)	0.07 mg/ltr	0.0074
		Cobaltium as Co, ppm (All these extraction)	0.01 mg/ltr	Not detected
		Mercury as Hg, ppm (All these extraction)	0.001 mg/ltr	Not detected
		Other toxic substances such as "to-a-ethylene" or "to-a-ethyl" monomers and "other aromatic" (Total extraction)	0.01 mg/ltr	Not detected

PART D: REMARKS: NIL
 NB: 1. The result related only to tested samples tested.
 2. The report shall not be reproduced in full part without written approval of the laboratory.

TECHNICAL MANAGER
 QUALITY MANAGER AUTHORIZED SIGNATORY

संजय इन्स्टीट्यूट ऑफ़ प्लास्टिक्स इंजीनियरिंग एण्ड टेक्नोलॉजी
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TECHNICAL MANAGER
 QUALITY MANAGER AUTHORIZED SIGNATORY

Phone: 0821-2514972
 E-mail: ceo@cipl.res.in

CSIR-Central Food Technological Research Institute
 Mysore - 570 020, INDIA

TEST REPORT

FR/ANCL/ATSP/05/SC/2282014-15

Name & Address of the Customer: Ashirvad Pipes Pvt. Ltd., 4-B, Attibele Industrial Area, Hosur Road, Bangalore - 562 107
 Request Reference: Your order dated 05.12.2014
 Name of the Product/Sample: Ashirvad uPVC (SDR 11 Class 1) Flowguard Plan Pipe
 Sample Receipt Date: 24.11.2014

Test Parameter	Standard (Type/ Test)	Amount of Extractives		Limits as per IS: 10155-1982 (2007) Positive Test (IN-15146-1982) (2005)		Test Method
		mg/ltr	ppm	mg/ltr	ppm	
Overall Migration Test	Distilled Water (40°C/ 10days)	0.22	2.2	10	60	9845-2998 (2004)

Conclusion: The above tested sample conforms to Overall Migration Test specifications. Limits as per IS: 10155-1982 (2007) Positive Test (IN-15146-1982 (2005)) for intended use for contact with potable water at room temperature filling and storing.

Reference as given by the customer: Please Note: The result contained in this Test Certificate relate only to the sample tested. This Certificate is intended only for your guidance and not valid for legal purposes or for advertisement.

Signature: J.K.R.D.
 J.K.R.D.
 Food Safety & Analytical Quality Control Laboratory
 CFTRI, MYSORE

About Aliaxis



Aliaxis group is a leading global manufacturer and distributor of plastic fluid handling systems used in residential, commercial and industrial buildings.

Head quartered in Brussels, Belgium. Aliaxis is present in over 45 countries, has more than 100 manufacturing and commercial entities and employs over 16,000 people.

Aliaxis leverages local and global knowledge of the industry as well as regulations and building habits to provide consistently excellent customer service through distribution partners to builders, installers, infrastructure contractors and others. The group is in the Indian plumbing and sanitary market through a partnership with Ashirvad Pipes since 2013.

Aliaxis at a glance



€ 3.1 billion
Revenue



120+
Distribution centres



1.400+
Injection machines



16.000+
Colleagues



45+
Countries



600+
Extruders



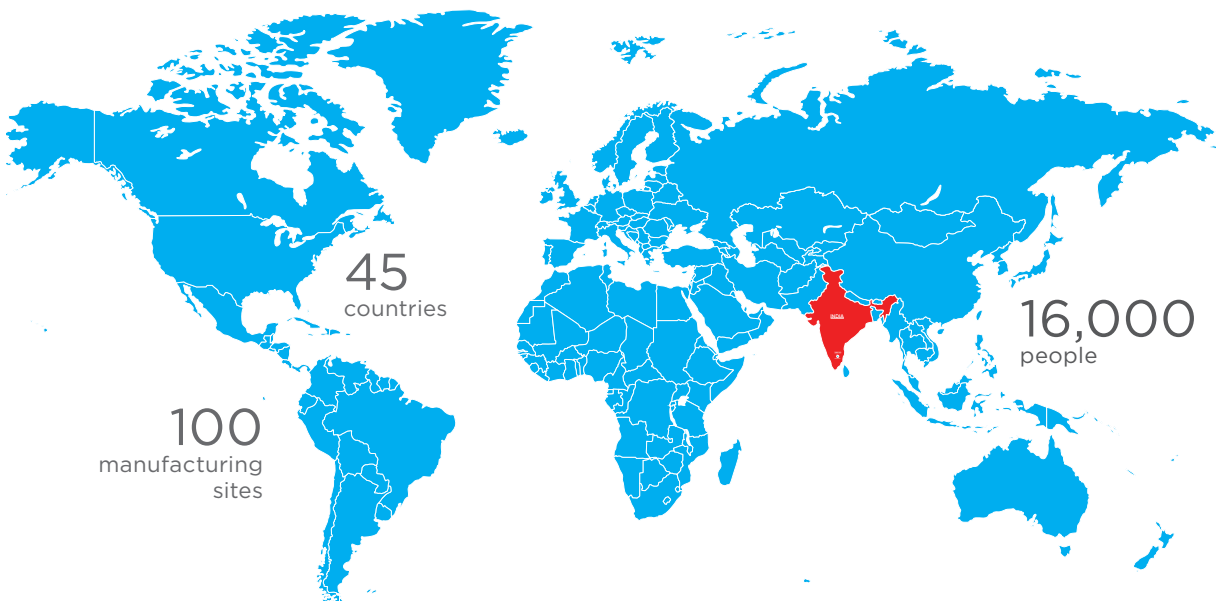
€ 87 million
Capex



80+
Manufacturing sites



10
Commercial brands







Ashirvad production plant



Injection Moulding Facility



Automated Raw material storage in Silos



Ashirvad workforce



Brass Fittings Quality Control

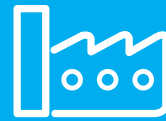


CPVC Extrusion Facility

10 ASSURANCES

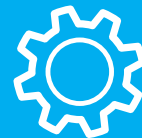
#01

STATE OF THE ART
MANUFACTURING FACILITIES



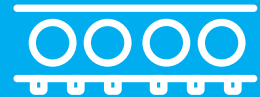
#02

ADVANCED MACHINERY
FOR SUPERIOR QUALITY



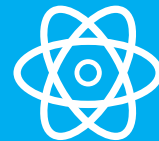
#03

ADVANCED MATERIAL
HANDLING SYSTEMS



#04

100% INCOMING RAW
MATERIAL INSPECTION



#05

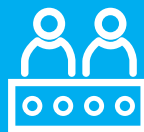
HIGH DIMENSIONAL ACCURACY
TO MAINTAIN QUALITY OF
EACH PIECE, TO ENSURE
A DEFECT FREE SYSTEM



Ashirvad's stringent quality checks ensure premium products and maximum customer satisfaction

#06

STRINGENT QUALITY CHECKS AT EVERY LEVEL OF PRODUCTION



#07

100% FINISHED GOODS INSPECTION



#08

MULTIPLE QUALITY CHECKS IN PLACE FOR EVERY CPVC BRASS FITTING THAT LEAVES THE ASHIRVAD FACTORY



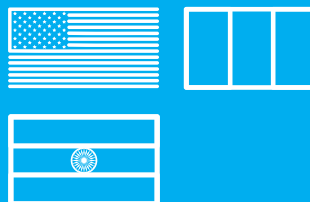
#09

EVERY BATCH OF PRODUCTS LAB TESTED



#10

REGULAR EXTERNAL LAB TESTING OF PRODUCTS IN USA, FRANCE AND INDIA



LEAK PROOF BATHROOMS

Ideal for use in hot and cold water applications in villas and individual homes, residential apartments, office complexes, commercial buildings, hotels and hospitals.



Concealed Valve

Features:

- Material : CPVC & uPVC , Sizes: ½", ¾" & 1"
- Stem length : long and short & knob in many variants
- Mechanism : ½turn and multi-turn

Benefits:

- Eliminates brass connection, saves cost for 2 brass adaptors
- Easy to install with plain sockets
- No chance of rusting, pitting and scaling



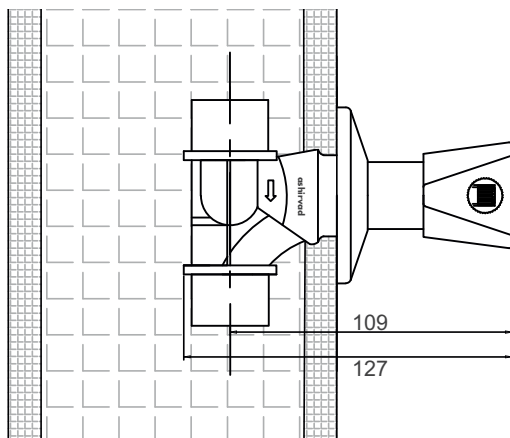
Installation instructions

1. After proper preparation of the mating surfaces, solvent weld the pipes to the socket ends of the concealed valve CPVC / uPVC body.
2. On completion of the cementing work, remove the black cap to reveal the brass mechanism.
3. Screw on the chrome-plated extension sleeve to the brass mechanism and do not forget to put the flange through. The flange position can be adjusted as required.
4. Mount the knob (Triangular, Square, Round or Plastic) after proper alignment of Ashirvad logo and tighten the top / side aligned screw.

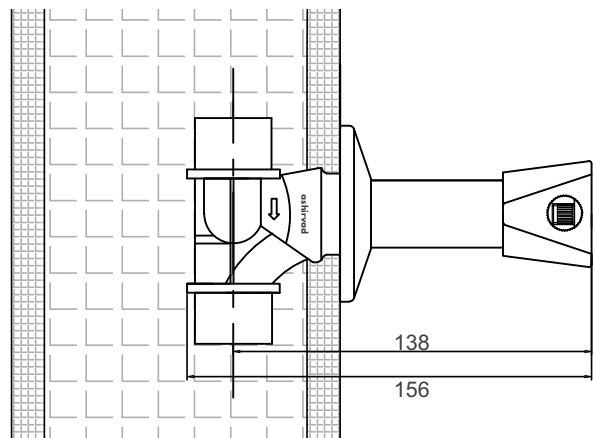
Recommendations

1. Please follow the Uniform Plumbing Code - India for all design requirements and seek the advice of an MEP Consultant for proper installation of concealed valves.
2. When water head / pressures are low, it is recommended to use a multi-turn mechanism for better flow control.
3. The valves can be used in the horizontal as well as vertical orientations.
4. If the brass mechanism is to be removed or reinstalled, do take care not to cross thread as this may damage the threads.

WARRANTY APPLICABLE ONLY IF ASHIRVAD CPVC FLOWGUARD™ PLUS / uPVC AQUALIFE PIPES, FITTINGS & SOLVENT CEMENT IS USED



SHORT CONCEALED VALVE



LONG CONCEALED VALVE

Concealed Diverter

Single Lever Concealed Diverters are used to control the flow of hot and cold water in Shower and Spout.

NOTE : Operating pressures of both hot and cold lines have to be optimized to ensure best operation of the diverter.

Features:

- Variants : Medium and High flow
- 40 mm for medium, 47 mm for high flow single lever cartridge
- FlowGuard® Plus™ CPVC body & top parts in chrome plated brass

Benefits:

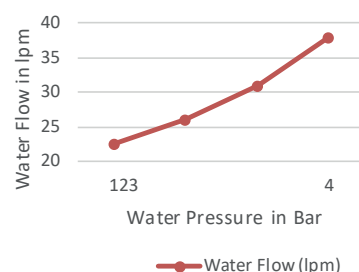
- Eliminates brass connection, saves cost for 4 brass adaptors
- Easy to install with inbuilt wings and plain sockets
- No chance of rusting, pitting and scaling



NOTE : At the time of installation, Make sure that the Push Button assembly is above the Handle.

FLOW RATE V/S OPERATING PRESSURE

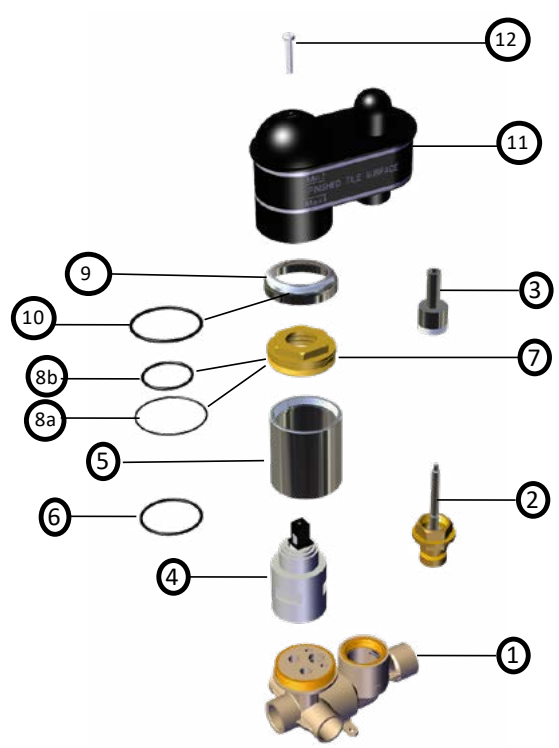
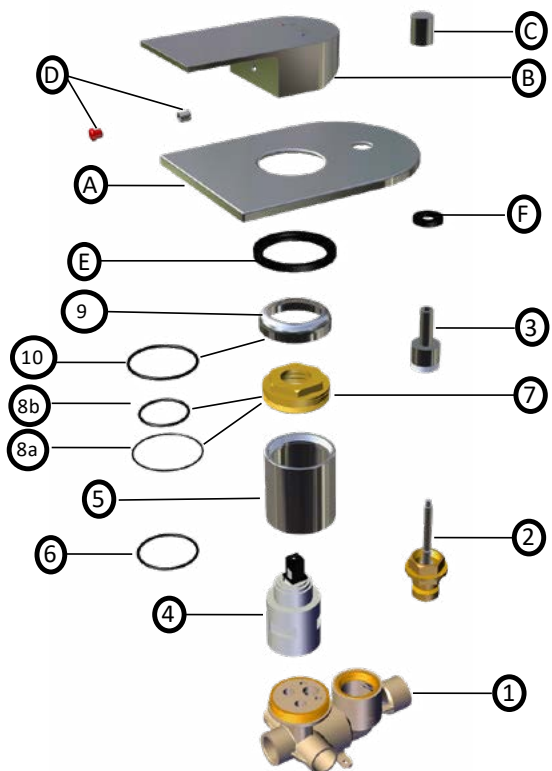
Water Pressure (Bar)	0.5	1.0	1.5	2.0
Liters per Min (lpm)	22	26	31	38



Single Lever Concealed Diverter for Bath and Shower

Part No.	Part Name	Qty.
1	HF CPVC Diverter Body	1
2	HF Brass Diverter Spindle	1
3	HF Short Extension Tube	1
4	HF 45 mm Diverter Cartridge	1
5	HF Cr Plated Brass Sleeve	1
6	HF Sleeve 'O' Ring	
7	HF Brass Sleeve Nut	1
8a	HF Sleeve Nut outer 'O' Ring	1
8b	HF Sleeve Nut inner 'O' Ring	1
9	HF Brass Sleeve Flange	1
10	HF Brass Sleeve Flange 'O' Ring	1
11	HF Protection Cap	1
12	Screw	1

Part No.	Part Name	Qty.
A	HF Cr Plated Wall Flange	1
B	HF Cr Plated Handle	1
C	HF Cr Plated Push Button	1
D	Grub screw / Cap	1
E	HF Wall Flange Washer - BIG	1
F	HF Wall Flange Washer - Small	1



Installation Instructions

The box contains Concealed Diverter Body assembly and protection cover with Min and Max level label.

Step 1:

Start plumbing for concealed body of the bath / shower mixer. Mark center for shower area on the wall. Mark the wall from spout to head shower center to chase around 60 mm deep and 150mm wide. Refer Fig-1 for dimensions.

Step 2:

Drill the wall and make room to install the diverter concealed body and chase the wall to install hot and cold water pipe lines.

Step 3:

fix the concealed body diverter in the wall with the help of clamping system at the area chiseled for it.

Step 4:

Install the pipe line for hot water and cold water supply & lay pipe for shower and tap/spout and connect it to the concealed body diverter.

Step 5:

Plaster the wall after connecting all inlet and outlet water pipelines.

Step 6:

Plaster the wall within the min mark level mentioned in the diverter concealed body protection cover.

Step 7:

Tile the wall between min and max mark level mentioned in the concealed diverter body protection cover. Fig-2

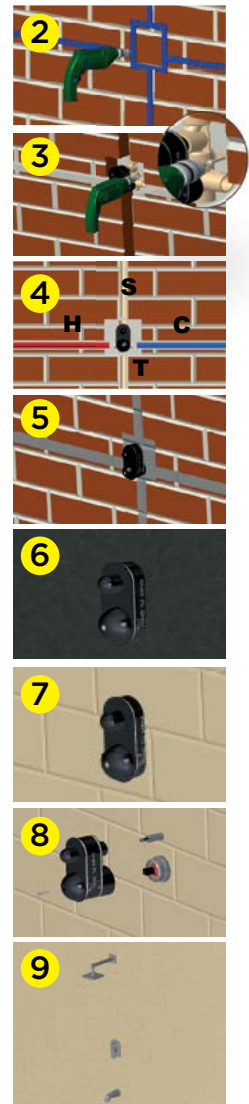
Step 8:

Cut or remove the extra part of the protection cover which is extended away from the tile surface.

Step 9:

Install wall plate, diverter knob and handle on the concealed diverter and then install the shower and spout in the marked area of wall.

The Concealed Diverter assembly is now ready for the ultimate bathing experience.



NOTE : At the time of installation, Make sure that the button assembly is above the handle.

Maintenance Instructions

Reduction in Water Flow

Prior to the installation of diverter body, the pipe line has to be flushed properly so that it is free from any debris/dirt. The body of the diverter is to be concealed in a recess of the wall.

Problem : Stone particles at the inlet of the diverter body (part no 1) and diverter cartridge (part no 4)

Remedy : Dismantle the diverter and take out the cartridge assembly (part no 4) Check for the stone particles at the inlet of cartridge or diverter body. Clean it and assemble the cartridge back.

Leakage from Lever Side

Problem : Brass sleeve nut (part no. 7) is loose

Remedy : Dismantle the parts (A to F) and (6 to 9) as shown in fig. Tighten the brass nut (part no. 7) if loose.

Leakage from the Push Button Assembly Spindle

Remedy : Dismantle the spindle and check for washer damage. In case of any damages, replace the whole spindle unit.

Water Leakage

Water leakage can take place due to progressive dirt deposition or disturbance of rubber washers or 'O' rings. Generally the leakage can be stopped by thoroughly washing/cleaning and reinstalling the concerned washer/ 'O' ring. In case on examination, the washer is found to worn out or damaged it may need to be replaced. The washer/ 'O' ring to be checked can be identified as follows.



Concealed Flush Valve

A flush valve is a self-closing valve designed to release a large volume of water when actuated. This mechanism is used to flush a toilet.

Features:

- Material : CPVC & uPVC, Sizes: 1 ½" X 1 ½" & 1 ½" X 1 ½"
- Operates from 0.5 bar to 3 bar
- Chrome plated flange

Benefits:

- Eliminates brass connection, saves cost for 2 brass adaptors
- Easy to install with plain sockets
- No chance of rusting, pitting and scaling

Maintenance

To avoid the water leakage into the WC, the damaged part in the valve mechanism have to be removed after shutting off the valve by turning the push control cock in clock wise direction till it is tightened. Then the damaged part have to be replaced accordingly.

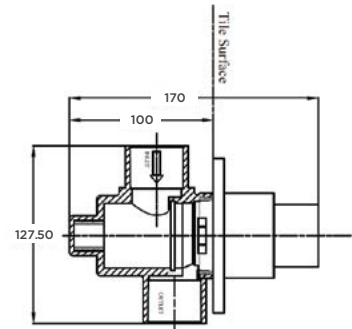
Operating Mechanism

The Flush valve is actuated by pressing the push control cock to flush the water and also the push control cock regulates the flow of flush water up max 6 lits. To attain max water flow, turn the push control cock in anticlockwise direction till it is tightened and to attain min water flow, turn the push control cock in clockwise direction to limit the sufficient volume of water. Note - Operating pressure of flush valve is 0.5 - 3 Bar.



Installation Instructions

- Prior to the installation of flush valve, the pipeline has to be flushed properly to remove the debris/dirt deposition.
- The body of the flush valve is to be concealed in a recess in the wall.
- Mark the area for installing the concealed Flush Valve.
- Drill the wall and make room to install the concealed flush valve body.
- Connect the pipelines to the inlet and outlet side of flush valve.
- Plaster the wall within the min mark level mentioned in the concealed flush valve body protection cover.
- Don't remove the protection cover of concealed flush valve, until the plastering work is completed.
- Tile the wall between min and max level mentioned in the concealed flush valve body protection cover.
- Remove or cut the protection cover which is extending away from the tile surface. Make sure that protection cover to be cut up to its thickness only. Cutting above its thickness damages the mechanism of the concealed flush valve.
- Finally install the wall plate to the concealed flush valve.



Sl No.	Part Name
1	Sleeve
2	Push Control Cock
3	Wall Flange
4	Wall Flange Washer
5	Lock 1
6	Spring Cap
7	Spring
8	Gland Nut
9	Body Nut
10	O- Ring 1
11	Stopper Bush
12	O- Ring 2
13	Lock 2
14	Sealed Piston
15	Spindle
16	Lock 3
17	O- Ring 3
18	Housing
19	Body

'Y' Strainer

A device through which a liquid is passed for purification, filtering or separation from solid matter.

'Y' strainers are used to remove suspended solids, sediment dirt and debris in water lines.

Features:

- Material: CPVC & uPVC, Sizes : 1" & 1 ½"
- Specially designed 30 micron stainless steel mesh
- Filters or separate unwanted suspended solids, sediment dirt & debris from the flowing water in the pipe lines by means of wire mesh straining element.

Benefits:

- Eliminates brass connection, saves cost for 2 brass adaptors
- Easy to install with plain sockets
- Easily detachable brass nut for maintenance



Applications

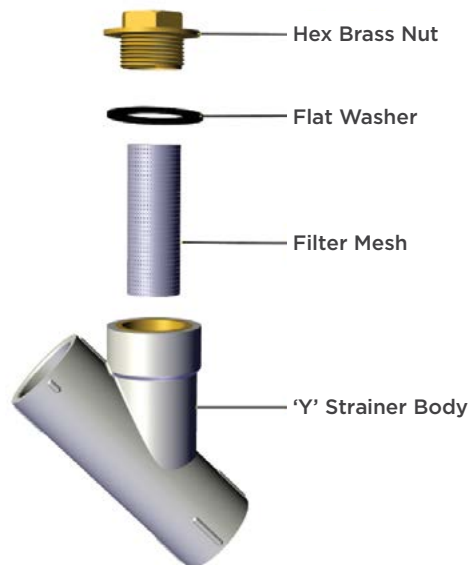
CPVC and uPVC 'Y' strainers can be used in areas such as

- › Borewell inlet to sump
- › Municipal water supply inlet line
- › In between sump to overhead tank pipeline
- › Delivery lines - (From overhead tank)

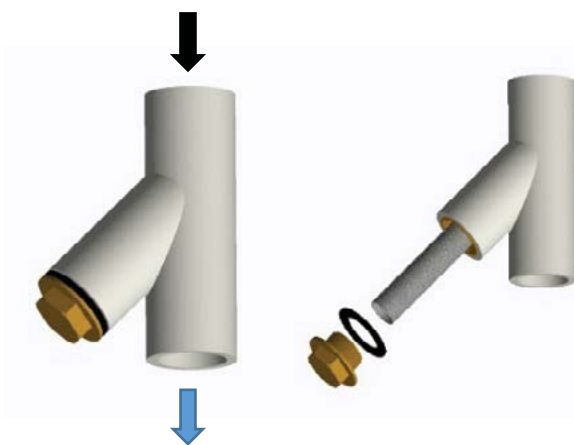
Installation instructions

- The 'Y' strainers are mounted with the angled piece facing downwards. This enables the strainer basket to be removed for maintenance, without allowing any of the filtered material back into the pipe.
- It is important to note here that these 'Y' strainers can be used for both in vertical and horizontal pipelines where there is a need to remove debris, dirt and scale formation from the system.

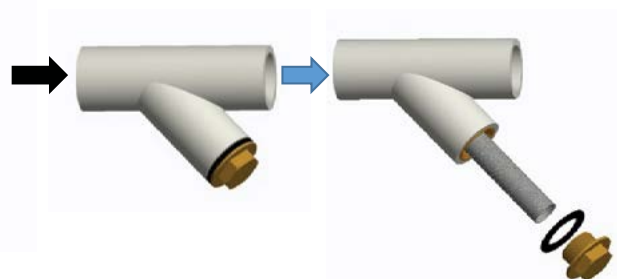
Sl No.	Description	Material
1	'Y' Strainer Body	CPVC/uPVC
2	Hex Brass Nut	Brass
3	Filter Mesh	Stainless Steel
4	Flat Washer	EPDM



Vertical Installation



Horizontal Installation



Bottle Traps & Waste Couplings

Features:

- Produced in high quality ABS
- Traps fulfil the hydraulic requirements as needed
- Available in white alpine finish to match wash basin

Benefits:

- Chemical resistant
- No chance of rusting, pitting and scaling
- No tools required to install / repair

Specifications

MATERIAL : ABS / Chrome Plated - ABS

PLUMBING CONNECTIONS

- For connection to 32mm diameter of waste coupling and SWR pipes of 32 mm.
- Chrome plated version gives metallic finish.
- Elegant design to provide a metallic appeal.

User Maintenance

OUTSIDE CLEANING - Caution ! Risk of Product Damage !

Many cleaners contain abrasive or chemical substances, and should not be used for cleaning chrome plated or glossy finish plastic fittings. These finishes should be cleaned using a mild washing up detergent or soap solution, rinsed and then wiped dry with a soft clean cloth.

Regular removal of solid waste collected in few bottle trap models is recommended. INSTALLATION INSTRUCTIONS

Before You Begin -

- Make sure that the bottle trap is installed by a competent installer.
- Turn off the water supply.
- The plumbing installation must comply with Building regulations or any

particular codes and practices, specified by the local water company or water undertakers.

- Before installation carefully inspect all the product components for any signs of damage.

Installing The Bottle Traps

- Fit the O-ring to the bottle trap and screw the bottle trap to the main body.

- Fit the blue washer to the upper side opening of the main body and then screw the nut to the main body.

- Fit the flat washer on to the top of the nut in the adjustable vertical pipe and screw the assembly to the bottom of the basin making sure that all the connections are tight.

- Measure the distance from the main body to the waste outlet in the wall.

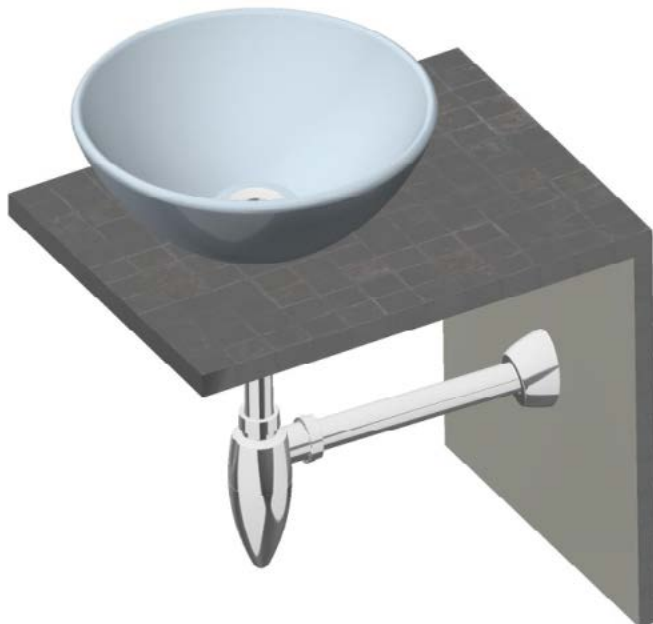
- If the horizontal extension pipe needs to be cut to fit, then do this now.

- Fit the nut to one end of horizontal extension pipe then fit the blue washer onto the nut, tapered end first, then screw the horizontal extension pipe securely into the main body.

- Attach the wall flange to the other end of the extension pipe, and secure this end to the waste pipe using the connector. Tighten securely.

- Make sure that all the connections are tight.

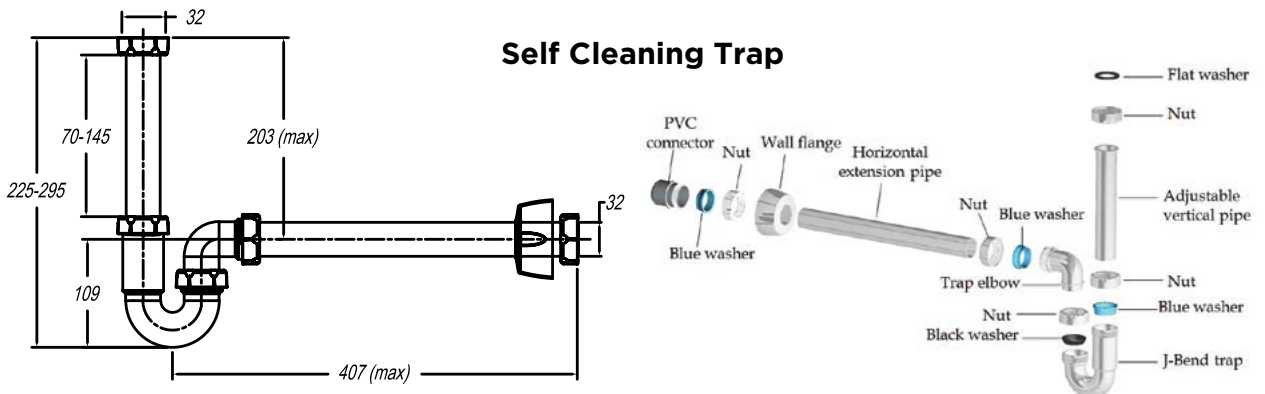
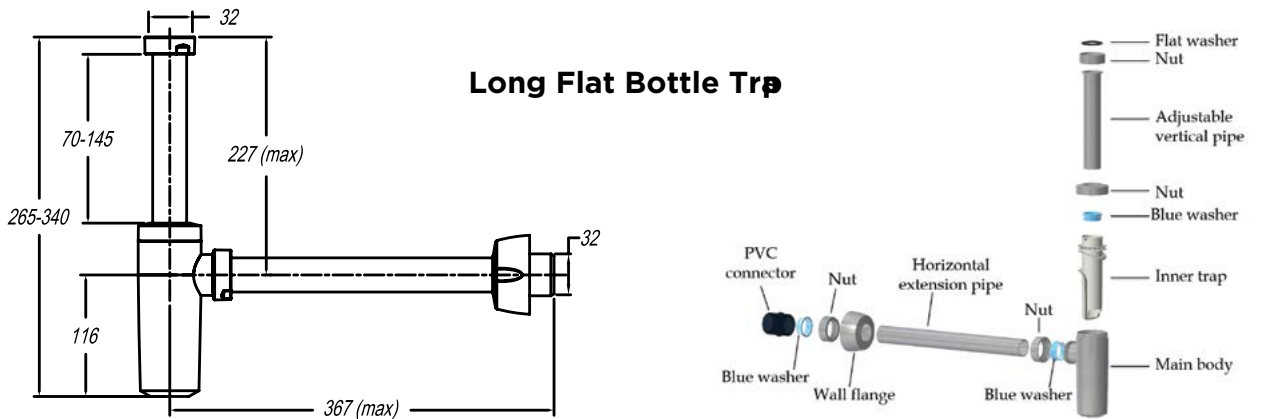
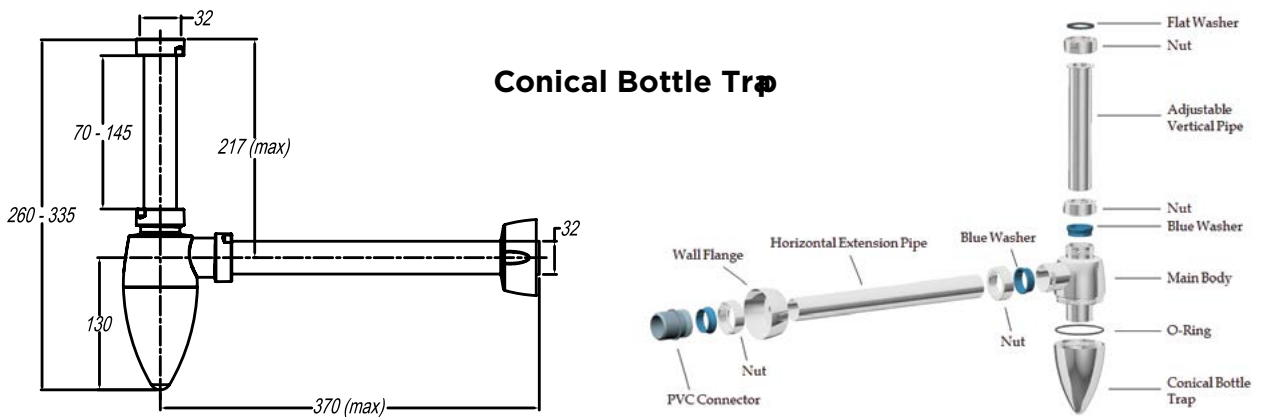
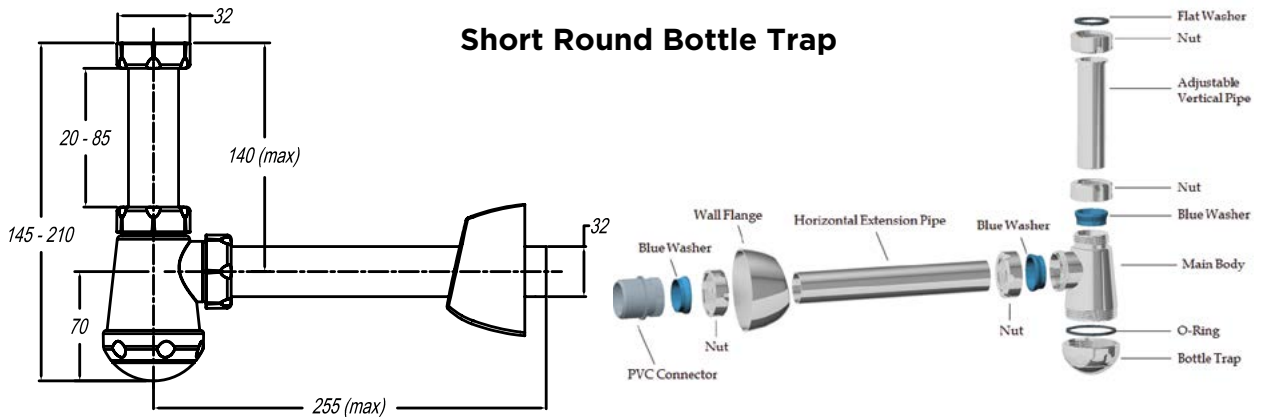
- Check for any leakages at normal water flow rate.



Note: This is not exhaustive and further recourse to UPIC-I or building practices are to be consider as required

BOTTLE TRAP DIMENSIONS

EXPLODED VIEW OF BOTTLE TRAPS



Pan Connectors

To connect toilets with horizontal/vertical outlets to standard SWR pipework, Ashirvad has introduced a new range of products that are plumber friendly in nature. Made of flexible plastic, the connectors tolerate movement, are leak proof (with multiple fins) and can connect different pipe materials.

Features:

- Moulded in high grade engineered plastic with simple pushfit assembly
- Available in straight and offset of 18 mm and 40 mm
- Flexible and self-adjustable for slight movement

Benefits:

- Offset pan connectors are the best solution to fix WC in case of finish floor level rise
- Connects easily with different pipe materials



Specifications for Pan Connectors

APCS2 Straight



125 mm x 110 mm

The straight connector (APCS2) is used when the spigot outlet on the commode is in line with the SWR pipework system.

APCC2 Collapsible



125 mm x 110 mm

The flexible connector (APCC2) is extendable from 225 to 550 mm and is very useful when the SWR pipework is at a significant distance from the spigot outlet or if it is in a vertical position.

APCO2 18 mm offset



125 mm x 110 mm

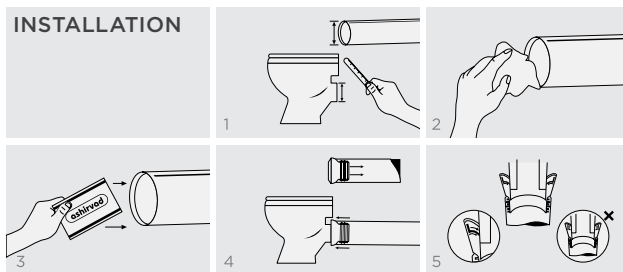
APCO4 40 mm offset



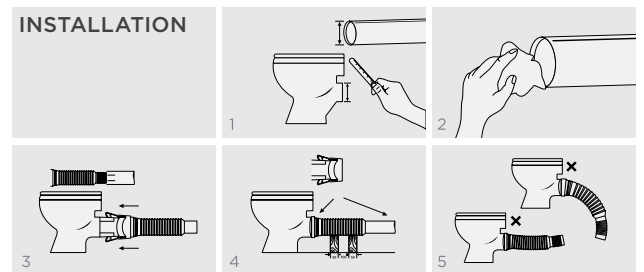
125 mm x 110 mm

The two ranges of offset connectors (APCO2 and APCO4) are useful if there is a mismatch between the centres of the spigot on the commode side and the SWR pipework. Offsets of up to 40 mm can be catered to by these two pan connectors.

Pan Connector Assembly (Straight/Offset)



Pan Connector Assembly (Collapsible)

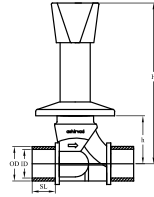




SMART WATER MANAGEMENT

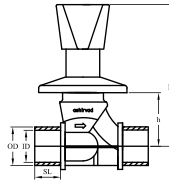
With technical tie ups across the globe, Ashirvad strives to bring the latest technology, products and thus solutions into the Indian plumbing market, with more and more satisfied customers each day.

LONG CONCEALED VALVE



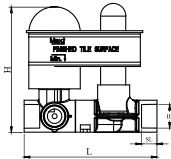
SIZE	ID	OD	SL	h	H
1/2"	16.08	21.26	12.70	41.3	138
3/4"	22.45	27.63	17.78	41.3	138
1"	28.83	42.8	22.86	41.3	135

SHORT CONCEALED VALVE



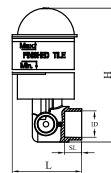
SIZE	ID	OD	SL	h	H
1/2"	16.08	21.26	12.70	41.3	109
3/4"	22.45	27.63	17.78	41.3	109
1"	28.83	42.8	22.86	41.3	105

CPVC CONCEALED DIVERTER - SHOWER & SPOUT



SIZE	ID	SL	L	H
3/4"	22.45	17.78	137.60	121.5

CPVC CONCEALED DIVERTER - SHOWER



SIZE	ID	SL	L	H
3/4"	22.45	17.78	67.50	121.5



The following notation (symbols) shall apply in this reference manual.

L - Length
W - Width
H - Height

T - Thickness
U - No. of holes
SL - Socket Length

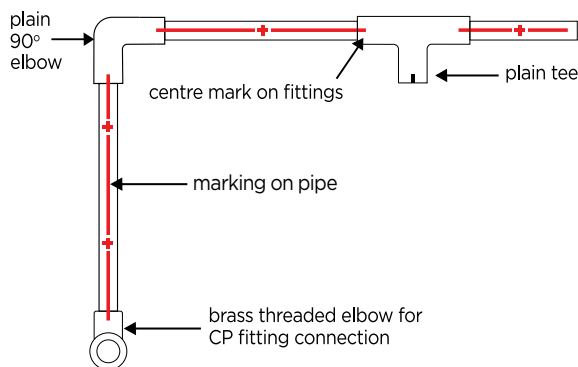
ID - Inner Diameter
OD - Outer Diameter
WT - Wall Thickness

Frequently Asked Questions

1. How are Ashirvad FLOWGUARD® PLUS™ CPVC pipes and fittings aligned?

Ashirvad has made innovation for correct alignment of fittings with pipes during fitment. Elbows and fittings in 1/2", 3/4" and 1" have an alignment mould mark which should be matched with the red stripe on the pipe during solvent cement push fitment process. This is to ensure that in the concealed installations the water outlet fittings are perpendicular to the wall surface and to avoid any repair, breakage, etc. after the wall finishing has been completed. Since there is no reference surface available to the plumber during installation in unplastered walls, this Self Alignment System is very useful and convenient. Ashirvad's self alignment system also saves on the extra cost in correcting those non aligned joints.

This alignment mark on the plastic fittings is an innovation done for the first time in the world by Ashirvad and is design registered.



2. Is Ashirvad CPVC UV protected?

CPVC compound (supplied by Lubrizol) used for manufacture of pipes and fittings are already UV protected. More than 50 years of use has shown that there is no deterioration in pressure withstanding capacity of FLOWGUARD® PLUS™ CPVC pipes which have been installed under the sunlight, even after several years of installation. However, for extra protection for pipes which are directly under harsh sunlight, Ashirvad recommends covering all pipes and fittings installed on the roof to prevent any kind of mechanical damage to the system.

Additionally, a touch of Latex based paint which is water based can be beneficial to ensure no change in colour of pipe or printing. No oil / Solvent based paints are

to be used as these paints can drastically reduce the life of the systems.

3. How to repair the punctures in the wall chasing/concealed installations?

Repair of punctured and damaged pipe due to drilling/chiseling can be done by removing the solvent cement plaster and using the pipe repair piece supplied by the company. Thoroughly clean the area of pipe damaged and make it dry. Apply solvent cement on the surface of pipe at damaged portion in the entire circumference. Also apply solvent cement on the inner surface of pipe repair piece and snap on over damaged area. Tie a small piece of string/binding wire around the repair piece and pipe for sometime to allow to set. This is an unique system available with CPVC pipe where the damaged pipe need not be cut or shifted back and forth for repair. Do pressure test before replastering.

4. Do we need to insulate the CPVC pipes?

Thermal conductivity of FLOWGUARD® PLUS™ CPVC pipes and fittings is 0.14 W/MK whereas of copper is 400 W/MK. Since CPVC is a very bad conductor of heat, light insulation is recommended only for installations where there is a continuous flow of hot water e.g. solar/centralised heaters. In bathrooms with independent heaters within 3 meters location insulation may not be necessary.

Please ensure that the insulation material or glue being used to hold the insulation material does not contain any phthalate plasticiser as it is not compatible with CPVC and can cause failure to plumbing system in the long run.

- At the end of this section, a list of all incompatible materials with CPVC is given for ready reference.

5. How to prevent the damage due to drilling / hammering?

After concealing, like any other plastic/copper pipes FLOWGUARD® PLUS™ CPVC pipes and fittings are prone to damage and punctures due to drilling/hammering or chiseling. To avoid such accidents, piping route/layout diagrams and proper instruction may be given to the customer, tiling, carpentry and electrician teams. Also contrasting colour may be added to the solvent cement mortar used to fill the chasings.

6. Why to give the expansion loops in the solar heater hot water line?

For CPVC pipes which are not embedded inside the wall but are carrying hot water from boiler/solar water heater, etc it is most important to use ready made expansion loop supplied by Ashirvad Pipes. Use one ready made loop for every 9-12 ft. run of the pipe, between two fixed joints. The loops are designed for a max and min differential temp of 70°C. For longer lines and longer distances between the fixed joints expansion loops can be made at site with calculations as per the FLOWGUARD® PLUS™ manual or existing available loops can be used after every 12 feet length of pipe.

7. Can we use the combination of CPVC and uPVC piping system?

It is strictly advised to use CPVC pipes in all internal plumbing for both Hot and Cold water line. There has been instances of the non-return valve failure or pressure differential in Hot and Cold water line due to which hot water has entered in the cold line. If the cold water line pipe is not temperature resistant then it will lead to leakage or bursting causing huge loss and inconvenience to the customer.

8. At what distance do we need to clamp the pipes?

Please see previous section.

9. Is the water passing through the solvent cement joints safe for drinking?

Ashirvad CPVC FLOWGUARD® PLUS™ Solvent cements are NSF/ANSI 61 certified by IAPMO - India. So it is safe for drinking water applications.

10. How to support the pipe line during wall chase installations?

The installation may be supported with the help of pre-drilled 15 mm thick plywood piece, 6" long by 2" wide. After fixing the pipe in the wall chasing it may be supported by fixing the plywood piece over the pipe and the chasing. Only 3 to 4 such supports may be needed in one toilet/bathroom installation. During installation it is best to avoid contact between pipe and nails. Properly align and firmly grout all threaded fittings inside the chasing with strong mix of solvent cement and sand. Pipe line ends or elbows should be laid at least 2.5 cms. inside the wall surface.

11. Protection against household hot water storage geyser temperature and safety mechanism malfunction

Some plumbing codes contain detailed requirements for connections to gas or

electric storage type water heaters.

Determine whether your code has such requirements and satisfy them. CPVC can be piped to the electric water heaters with special metal-to-CPVC transition fittings as shown in the photo. For wall mounted electrical geyser connection always keep the inlet valve open and use flexible plastic hose pipe to connect geyser inlet to CPVC piping system. On gas water heaters there should be at least 6 inches of clearance between the exhaust flue and any CPVC piping. Twelve inch long metal nipple or appliance connector should be connected directly to the heater so that the CPVC pipe is not damaged by the build-up of excessive radiant heat from the flue. An approved temperature/ pressure (T/P) relief valve should be installed so that the probe or sensing element is in the water at the top of the heater. CPVC is approved by all the model codes for use as relief valve drain line piping. Use a metal-to-CPVC transition fitting to connect to the relief valve and continue the pipe full size to the outlet. For horizontal runs, slope the pipe toward the outlet and support it at three-foot centers or closer. The pipe must discharge to the atmosphere at an approved location. Do not use CPVC pipe and fittings with commercial-type non-storage water heaters.



CPVC pipe

Metal pipe

12. What are the frictional losses encountered in CPVC systems?

Please see previous section for the table of frictional losses in CPVC systems.

13. Are any materials not compatible with CPVC systems?

Please see next section for the list of materials that are incompatible with CPVC.

14. Any suggestions on Pump Room Application?

Any pump, when switched on, initially if generates very high pressure.

This pressure may cause damage to initial fittings in the system. To avoid this damage following precautions to be followed:

- The ramp-up time to be increased. Because of increased ramp-up time, the pump gradually build the pressure. This will not damage the initial fittings in the system.
- Immediately after the pump, 1st and 2nd fitting used should be of metal.
- After the metal bends, the pipe and fitting

selection should be of Schedule 80, and jointing to be done with 2 step solvent cement.

d. Proper supports to be used provided to avoid the sagging of piping

15. Water Hammer Arrestor (WHA)

WATER HAMMER is the term used to define the destructive forces, pounding noises and vibration which develop in a piping system when a column of non-compressible liquid flowing through a pipe line is stopped abruptly. Fast closing positive shutoff valves incorporated in plumbing system all contribute to creating water shock which is not only annoying but damaging to pipes and appliances..

The Ashirvad Water Hammer Arrestors are designed to eliminate this effect. It features construction to comply with requirements. It incorporates a precharged, permanent sealed air chamber to absorb the shock. The sealed chamber prevents the loss of air to the water and assures long and trouble-free life.

Features :

- BSP solid hex brass adapter or solder end connection for easy installation.
- Approved for installation with no access panel requirement.
- May be installed in new or existing plumbing systems with a standard pipe tee vertically or horizontally.
- Maintenance free - piston is the only moving part.
- Air pre-load is 60psi (4.20 bar) in the chamber.
- Factory air charged and permanently sealed.
- Long lasting product.

Warranty and Incompatibility

Note on incompatibility

The following items are generally deemed incompatible with CPVC pipes and fittings as they can lead to environmental stress cracking or premature failure of the system. These materials are thus not to be used with FLOWGUARD® PLUS™ CPVC pipes and fittings.

1. Aggressive chemical agents
2. Fire stopping systems
3. Thread sealants
4. Insulation materials with phthalate plasticiser
5. Vaseline
6. Roofing tar
7. Silicone pipe sealants
8. Peppermint oil
9. Vegetable oil
10. Lubricants such as WD40
11. Insecticides
12. Leak detectors
13. Dioctyl phthalate (instead use foam polyethylene)
14. Liquid solvent cement
15. PVC pipe wrap tape
16. Acrylic latex caulk and silicone
17. Tiles and all purpose solvent cement caulk

The limited warranty will not apply if

1. Ashirvad products are used in combination with any other brand / make of pipes, fittings and solvent cement.
2. The product is used for purposes other than distribution of domestic water.
3. The product fails due to defects or deficiencies in design, engineering or installation.
4. The joints are not pressure tested before plastering of the casings.
5. The Installation manual for the use of the product is not followed.
6. The temperature exceeds 93°C for short term use and 82°C for continuous use.
7. The pipe is not warranted against any mechanical damage by nails, drilling, chiseling, etc.
8. The warranty will not apply in case of geyser short circuit or temperature control system failure.
9. For open hot water line, the expansion loop is not used as per instruction. For pipes under severe sunlight condition, coating of recommended paint to be done on pipes and fittings.

Ashirvad FLOWGUARD® PLUS™ CPVC limited warranty

Ashirvad Pipes Pvt. Ltd., Bengaluru warrants to the original owner that the product will be free from manufacturing defects and conform to current applicable ASTM standards under normal use. Buyers' remedy for breach of this warranty is limited to replacement of, or credit for, the defective product. This warranty excludes any expense for removal or reinstallation of any defective product and any other incidental, consequential or punitive damages.



LEAK PROOF BATHROOMS

Ideal for use in hot and cold water applications in villas and individual homes, residential apartments, office complexes, commercial buildings, hotels and hospitals.

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SMART WATER MANAGEMENT PLUMBING . SANITARY . AGRICULTURE



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