Supreme®
People who know plastics best

Total Piping Solution

75 YEARS OF EXCELLENCE

aqua Gold® uPVC

High pressure plumbing system

... The easy and economical solution

MCGM APPROVED

LEAD FREE

The Supreme Industries Ltd. is an acknowledged leader of India's plastic industry. It is credited with pioneering several path breaking products and has gained a valuable experience in providing innovative and cost effective piping solutions. The Company has been a trend setter and a torch bearer in the transition from conventional to advanced plastic piping products in the country. The Company's objective is to meet the growing needs of its clientele in water and waste management and in infrastructure sector through a specially designed high performance range of piping products. The innovative product portfolio offered by Supreme is extensive in nature and applications. With its range of over 7500 products, the most comprehensive in the piping industry, Supreme caters to almost every conceivable need and application in piping.

Supreme "lead free" aqua Gold high pressure uPVC solvent weld plumbing system is an economical solution that is suitable for a wide variety of applications that involve transportation and distribution of potable water. This hygienic and cost effective system is not only technically superior to conventional GI systems but offers many additional advantages over them. Easy to install and functionally most suitable for plumbing application like terrace looping, down-take and up-take lines, concealed pipe work, this system ultimately costs almost half of the conventional systems and yet has a much longer life span. This system has the approval of M.C.G.M.

Jeevan bhar ka saath...

aqua Gold®

uPVC High Pressure Plumbing System

Features and Benefits

Strong, resilient and long lasting - This system is highly resilient, tough and durable with high tensile and impact strength. It is also free of weaknesses caused due to rusting, weathering and chemical action which help it last considerably longer than GI pipe systems.

Mechanical properties - uPVC pipes are relatively more flexible than conventional piping systems. They have adequate tensile strength and even burst strength to withstand the operating pressures encountered in most service conditions within the acceptable range of temperature for the system. External shocks or impacts that could cause a failure in more rigid materials, can be absorbed by the system with little or no damage.

Excellent chemical and corrosion resistant properties - This material is free from corrosion and has an excellent resistance against many chemicals like strong mineral acids, alkalis, salts as well as to a large number of organic solvents.

Light weight - Being light in weight (1/6th the weight of metal piping), these pipes are easy to handle, transport and install.

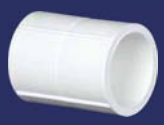
Simple and leak proof joints - Jointing can be done speedily with the special solvent cement supplied by the company which ensures 100% leak proof joints.

Most suitable for carriage of potable water - Being non-metallic and made from some special compounds, this system is free from corrosion, chemical reactivity and biological effects.

Optimum flow rates - A mirror-smooth surface with C-value 150 ensures a high flow rate and low frictional losses.

Piping system integrity - Supreme aqua Gold offers a complete range of pipe and fitting products which translates into the fact that one needs to look no further.

Maintenance free - Being free from all the demerits of old systems like rusting, pitting, scaling, galvanic or electrolytic corrosion, the Supreme aqua Gold system can rightly boast of being maintenance free.


Coupler

Elbow 90°

Reducing Elbow 90°

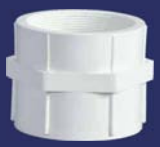
Elbow 45°

Equal Tee

Reducing Tee

Cross Tee

Male Threaded Adapter (Plastic)


Female Threaded Adapter (Plastic)

Female Threaded Elbow (Brass)

Female Threaded Tee (Brass)

Female Threaded Adapter (Brass)

Male Threaded Adapter (Brass)

Circuit Testing Plug

Pipe Clip (Plastic)

Flange Adapter

Flange Adapter (with metal bush)

Flange Van Stone Style

Blind Flange

Hex Nipple

Bend 90° (Threaded & SW) (F)

Bypass Bend (F)

Offset Bend

Male & Female Transition Nipple (F)

Pipe Nipple (Threaded- 4" long)

Strap Saddle

Strap Wrench

Overall economy – Maintenance free long life of a product which is light, can be cut, jointed and installed at will with little effort saves a huge amount of money over its life time.

Fields of Application

- Plumbing applications in buildings
- Water distribution mains
- Industrial process lines
- Dye houses, chrome, zinc plating and tanning industries
- Swimming pools
- Salt water lines
- Aggressive/corrosive fluid transportation
- Sugar, paper and distillery industries
- Coal washing and ash handling
- Pipes for hand pumps

Dimensions and water pressure rating at 23°C as per ASTM D-1785

Nominal Size		Outside Diameter (D) in mm	Schedule 40			Schedule 80		
			Wall Thickness (t) in mm	Working Pressure		Wall Thickness (t) in mm	Working Pressure	
mm	inch			kgf/cm²	psi		kgf/cm²	psi
15	½	21.34 ± 0.10	2.77 + 0.51	41.4	600	3.73 + 0.51	58.6	850
20	¾	26.67 ± 0.10	2.87 + 0.51	33.1	480	3.91 + 0.51	47.6	690
25	1	33.40 ± 0.13	3.38 + 0.51	31.0	450	4.55 + 0.53	43.4	630
32	1¼	42.16 ± 0.13	3.56 + 0.51	25.5	370	4.85 + 0.58	35.9	520
40	1½	48.26 ± 0.15	3.68 + 0.51	22.8	330	5.08 + 0.61	32.4	470
50	2	60.32 ± 0.15	3.91 + 0.51	19.3	280	5.54 + 0.66	27.6	400
65	2½	73.02 ± 0.18	5.61 + 0.61	20.7	300	7.01 + 0.84	29.0	420
80	3	88.90 ± 0.20	5.49 + 0.66	17.9	260	7.62 + 0.91	25.5	370
100	4	114.30 ± 0.23	6.02 + 0.71	15.2	220	8.56 + 1.02	22.1	320
125	5	141.30 ± 0.25	6.55 + 0.79	13.1	190	9.52 + 1.14	20.0	290
150	6	168.28 ± 0.28	7.11 + 0.86	12.4	180	10.97 + 1.32	19.3	280
200	8	219.08 ± 0.38	8.18 + 0.99	11.0	160	12.70 + 1.52	17.2	250
*250	10	273.05 ± 0.38	9.27+1.12	9.8	140	15.06+1.80	16.1	230

Fittings: Entire range of fittings from 15 to 200 mm (½" to 8") is available in SCH 80 pressure class where as sizes up to 50 mm (2") are also offered in SCH 40 pressure class.

Reducer

Reducing Bush

End Cap (Plain)

End Cap (Threaded)

Union

Female Threaded Elbow (Plastic)

Female Threaded Tee (Plastic)

Ball Valve (Solvent Weld)

Ball Valve (Plastic Ball)

Ball Valve

Concealed Valve

Screw Tap with Handwheel

Y-Strainer

Angle Cock

Threaded Plug

Tank Air Vent

Air Release Valve

Swing Check Valve

Tank Connector (MT/FT)

Tank Connector (MT/Soc)

Tank Connector Long (MT/Spg)

Metal Clamp

U - Bolt Clamp

Regular Bodied

Medium Bodied

Heavy Bodied

Primer

Thread Sealant

aqua Gold®

uPVC High Pressure Plumbing System

Material Properties:

Mechanical Properties

Ultimate tensile strength	: 450 - 500 Kgf/cm^2
Modulus of elasticity	: 3.03 x 10^4 Kgf/cm^2
Modulus of rigidity	: 1-1.2 x 10^4 Kgf/cm^2
Flexural strength	: 900 - 913 Kgf/cm^2
Maximum bending stress	: 21 Kgf/cm^2

Thermal Properties

Softening point (Vicat)	: 72-80° C
Coefficient of linear expansion	: 5.4 x 10^{-5} mm/mm° C
Expansion on 6 m length	: 3.2 mm/10° C (approx)

Flow Characteristics

Hazen Williams Constant	: 150

Jointing Instructions:

Cutting the pipe: Cut the pipe square with hand saw with suitable guide or by pipe cutter in order to make a proper and neat joint.

Joint preparation: Chamfer or deburr pipe or both, approximately at 10-15° angle. Remove burrs from inside and outside surfaces with a knife, file or an abrasive paper.

Cleaning: Remove any dirt, moisture or grease from pipe and fitting sockets with a clean dry rag.

Marking: Mark the pipe end with a bell depth line which will show the full depth of penetration inside the pipe/fitting socket.

Test dry fit the joint: Insert the pipe into the fitting and check that the interference occurs at about 1/3rd to 2/3rd of the socket depth. Too tight or too loose fitting may lead to leakages.

Application of solvent cement: While making a joint, apply cement lightly but uniformly to the inner surface of the socket and the outer surface of pipe end with a natural bristle nylon brush or suitable applicator. Apply a second coat of cement to the pipe end. Apply cement quickly to prevent it from drying and make sure to completely cover all jointing surface area of the pipe and fitting. Do not apply excessive cement in bell socket.

Assembly of joint : Immediately after applying the last coat of cement to the pipe and while cement is still not dry (within 10-20 second), forcefully bottom the male end of the pipe in the socket, giving pipe or fitting 1/4th turn (but not after pipe is bottomed) to distribute cement evenly. Remove excess cement from the pipe at the end of fitting socket. The joint must not be disturbed or pressurized immediately after cementing to ensure proper curing which takes about 12 hours.

Quality of solvent cement: The quality of solvent cement plays a vital role in solvent weld plumbing which has a great influence over the joint strength. Considering this important fact, the Company has its own solvent cement plant which ensures excellent quality and a leak proof joint.

The Company has introduced NSF approved solvent cement under the brand name, "SILBOND". Silbond solvent cement for uPVC aqua Gold is available in the following three varieties: -

1) Regular bodied (recommended up to 50 mm (2") size for SCH 40 pipes).
2) Medium bodied (recommended up to 150 mm (6") size for SCH 40 and 32 mm (1¼") size for SCH 80 pipes).
3) Heavy bodied (recommended up to 300 mm (12") size for SCH 40 and 150 mm (6") size for SCH 80 pipes).

Consumption of solvent cement

Pipe size (mm)	15	20	25	32	40	50	80	100	150	200
No. of joints per litre	274	169	148	106	74	42	32-40	21-30	5-10	3-5

Note : Primer: Use of primer prior to solvent cement is essential in case of 65mm (2½") and above sized pipes. When the system is to be concealed, it should be pressure tested before concealment. This system is not recommended for geyser outlets and hot water supply. For further details, refer to aqua Gold installation guide.

Company does not take guarantee for the performance unless company supplied solvent cement is used.

• Any specification may change without prior notice. • All information contained in this literature is given in good faith and believed to be accurate and reliable. Because of many factors which may be outside our knowledge or control and affect the use of the product, no warranty is given or implied with respect to such information, nor do we offer any warranty of immunity against patent infringement. No responsibility can be accepted for any error, omissions or incorrect assumptions.

The Supreme Industries Ltd. (Plastic Piping Division)

Corporate Office : 1161/1162, Solitair Corporate Park, Building No. 11,167, Guru Hargovindji Marg, Chakala, Andheri Ghatkopar Link Road, Andheri (East) Mumbai - 400 093. India. Tel: 91-22-67710000, 40430000 Fax: 67710099 /40430099.
Regd. Office : 612 Raheja Chambers, Nariman Point, Mumbai 400 021. India Tel.: (022) 22851656, 22820072 Fax : (91-22) 22851657
E-mail: pvc-pipes@supreme.co.in **Website :** www.supreme.co.in

Works : • D-101/102, MIDC, Jalgaon - 425 003.
• Unit No.3, Gat No.47-48, at post Gadegaon, Tal. Jamner, Dist., Jalgaon- 425 114

Export Division : 91-22-6771 0126 / 4043 0126 Fax : 6771 0130
Overseas Office : Sharjah, U.A.E. Tel # + 971 6 557 4484; Fax # + 971 6 557 4485

CIN: L35920MH1942PLC003554

Branch Offices	☏ Tel.
Ahmedabad	: 079-30028371
Bangalore	: 080-30913715
Chennai	: 044-39811182
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Gadegaon, Dist. Jalgaon

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