

COMPANY PROFILE

PLUMBER leapfrogged into brand leader in Indian bathroom fittings industry in a matter of little over 15 years. In an industry which is growing at a healthy clip, where every other day a new brand is foraying into market place and jostling for space, PLUMBER'S entry synchronized with urban life style change towards fashionable living. That may be a mere coincidence, however, that point of time witnessed bathroom fittings industry getting organized and brand building became increasingly important.

PLUMBER brand of bath fittings and accessories stand on two professed benchmarks of constant innovation and uncompromising quality. Today, PLUMBER adorns millions of homes. A brand with its own esteem, growing recognition and popularity backed by promoters with 30 years of sterling experience.

PLUMBER, in fact, is a brand that straddles the entire spectrum of bath fittings segments. A tap for every one, "ECONOMY" range is an all-India favourite in the lower segment & chrome plated "LONGLIFE" range fitted with international standard, double O'ring protection for the main working internal parts as a technical advancement has stormed the market.

To keep up with its promised innovation PLUMBER launched ATHENA, India's first silver and gold plated bath fittings range that saw instant success. All this was followed up by a slew of quick launch of ranges. Victorian series ATLANTIS with crafted quarter turn ceramic cartridge. State-of-the-art single lever lines ASTRAL, STELLAR & KORINA. Stunning and modular AZTEC series. The double colour wonder DUET. And the newest and the sleekest X-TREME, ULTRA, TRICON. The feather in hat is faucets.

All PLUMBER bath fittings ranges come with a plethora of enchanting colour choices and matching colour accessories.

To set new standards of excellence and aesthetics, PLUMBER faucets are embedded with acid and alkali resistant coatings, introduced with assistance of Hawking International, UK, a world leader in surface coating technology and also in association with LVH coatings UK.

Our Nickel/Chromium coatings are as per British Standards Service Condition No.2 & 3 defined for Kitchen/Bathroom fixtures.

However, this only is half the success story of the brand called PLUMBER. Close on the heels of this success is a massive launch plan of varied bathroom fitting products and ranges – sensor faucets, thermostatic mixers & crystal head faucets etc., that will take good living to a new high.

PLUMBER too has made rapid strides beyond the native shores. A brand that meets popular demands in countries like Spain, Sri Lanka, South Africa, Kenya, Tanzania & UAE to name a few.

At PLUMBER, on offer is not a mere tap. It is convenience and a better quality life.

List of our Clients

OUR SATISFIED CLIENTS :

A. Public Sector & Govt. Bodies

- *Uttar Pradesh Awas Vikas Parishad*
- *Uttar Pradesh Jal Nigam*
- *Uttar Pradesh Police Awas Nigam*
- *Uttar Pradesh Samaj Kalyan Nigam*
- *Uttar Pradesh Rajkiya Nirman Nigam*
- *NTPC Ltd. - Jagdishpur (U.P.)*
- *I.T.I. Raibareilly(U.P.)*
- *I.T.I. Mankapur(U.P.)*
- *CPWD (Maintenance), Lucknow*
- *Hindustan Aeronautics Ltd. (HAL) – Lucknow*
- *Hindustan Aeronautics Ltd. (HAL) –Bangalore*
- *Bharat Sanchar Nigam Ltd., Lucknow*
- *Lucknow Development Authority, Lucknow*
- *Hindustan Copper Ltd.*
- *M.E.S., Jodhpur*
- *O.N.G.C.*
- *B. P. C. L., Surat*

B. Corporate

- *Telco, Lucknow*
- *Nihon Nirman Ltd.*
- *Larsen & Toubro Ltd., Pune*
- *Grasim Industries Ltd.*
- *Jindal Steel & Power Ltd.*
- *Reliance Petrochemicals Ltd., Jamnagar*
- *Essar Oil Ltd., Jamnagar*
- *Eureka Forbes Ltd. (Manufacturers of AQUAGUARD) a TATA group company*
- *Bokaro Steel Plant*

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C. Builders & Promoters

- *Sahara Housing & Leasing Ltd., Lucknow*
- *Lok Housing Ltd., Mumbai*
- *Silver Group, Mumbai*
- *Chandak Group, Mumbai*
- *Triveni Constructions, Mumbai*
- *B. G. Shirke Construction & Development Technology Ltd., Pune*
- *Kumar Builders, Pune*
- *Ambekar Joshi Builders, Pune*
- *The Construction & Development Co., Pune*
- *ICC Reality (India) Pvt. Ltd, Pune.*
- *AJP Construction Builder & Developer, Pune*
- *Reliance Constructions, Hyderabad*
- *SMR Builders (P) Ltd., Hyderabad*
- *Silpa Homes & Developers, Hyderabad*
- *Satellite Developers, Mumbai*
- *Bhoomiraj Constructions, Navi Mumbai*
- *Sherwood Group, Calcutta*
- *Jain Group, Calcutta*
- *S. V. M. M. Estate, Hyderabad*
- *Minakshi Builders, Hyderabad*
- *Kalasagar, Ahmedabad*
- *Sharda Constructions, Bangalore*
- *Shalimar Housing Ltd., Indore*
- *Raj Homes, Bhopal*
- *Quality Constructions, Mumbai*
- *C.K Builders & Developers, Mumbai*
- *Dhariyawan Developers, Mumbai*
- *Satellite Developers, Mumbai*
- *Kashish Park Reality, Mumbai*
- *C.M. Gandhi Construction, Mumbai*
- *Shah Associates (Shrushti), Mumbai*
- *D.K. Associates, Mumbai*
- *May Fair Housing, Mumbai*
- *Progressive Group, Mumbai*
- *Quick Builders, Mumbai*
- *Bhumiraj Homes, Mumbai*
- *Sanjana Developers, Mumbai*
- *Kukreja Constructions, Mumbai*
- *Global Institute of Technology Society, Jaipur*
- *Pinkcity Apartments (P) Ltd., Jaipur*

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- *Akshat Apartments (P) Ltd., Jaipur*
- *Krishna Krupa, Jaipur*
- *Marut Nandan Educational Society, Alwar*
- *Siddhi Developers & Builders, Ahmedabad*
- *Abhiyan (Navrangpura) Co-op Housing Society, Ahmedabad*
- *Kala Buildcon, Ahmedabad*
- *Kala Infrastructure, Ahmedabad*
- *Maruti Developers, Ahmedabad*
- *Aryaman Developers, Ahmedabad*
- *Kanji Maharaj Co-operative Housing Society, Ahmedabad*
- *Utthan Seva Trust, Ahmedabad*
- *Vastu Engineers & Contractors, Ahmedabad*
- *Sarovar Developers (P) Ltd., Ahmedabad*
- *Shreyans Nath Developers, Ahmedabad*
- *Shri Nathji Developers, Ahmedabad*
- *Shantivan Co-operative Housing Society Ltd., Ahmedabad*
- *Saraswati Smruti Co-operative Housing Society, Ahmedabad*
- *Ketan Builders, Rajkot*
- *J.V. Developers, Rajkot*
- *B.R. Patel Developers, Baroda*
- *Rachna Developers, Baroda*
- *Shail Builders, Baroda*
- *Pushpa Associates, Baroda*
- *A.B.C. House, Baroda*
- *Parul Institute, Baroda*
- *Shri Krishna Developers, Baroda*
- *Surat Textile Market, Surat*
- *Priyank Gems, Surat*
- *Shivam Builders, Surat*
- *Shubhalaxmi Corporation, Surat*
- *Nikhil Constructions, Surat*

D. Hospitals

- *Lata Mangeshkar Medical Foundation, Pune*
- *Chella Nursing Home, Hyderabad*
- *Baba Saheb Hedgewar Hospital, Aurangabad*
- *Kamal Nayan Bajaj Hospital, Aurangabad (Bajaj Group)*

E. Hotels

- *Hotel Sai Krupa, Shirdi*
- *Hotel Guruprerna, Mumbai*

Contd...

- *Hotel Agra Ashok, Agra*
- *Hotel I. K. International, Hyderabad*
- *Hotel Sinduri, Chennai*
- *Hotel Rajputana Sheraton, Jaipur*
- *Hotel Asrani, Secundrabad*
- *Hotel Duke Palace, Mathura*
- *Hotel Brijwasi Royal, Mathura*
- *Hotel Best Western Radha Ashok, Mathura*
- *Hotel Picnic, Chennai*
- *Hotel Gautam, Goa*
- *Hotel Amar, Agra*
- *Hotel Satyaketu, Baroda*
- *The Pride Hotel, Ahmedabad*

F. Religious Places

- *Golden Temple, Amritsar*
- *Prajapita Brahmakumari Ishwariya Vishwavidhyalay, Mount Abu, Dharuheda, Hyderabad*
- *Tirumala Tirupati Devasthanam, Tirupati*
- *ISKON, Bangalore*
- *Shri. Satya Sai Baba Ashram, Puttaparthi (A.P.)*
- *Shree Maharashtra Bhawan Jain Trust, Palitana (Gujarat)*
- *Shree Lalabad Jain Shwetamber Trust, Palitana (Gujarat)*
- *Prem Prakash Ashram, Surat*

Plumber Bathroom Fittings Certification & Specification

1) Basic Raw Material

- a) Die Cast Brass Composition is Maintained within limit of IS 1264-DEB-2

Particulars	AS IS-1264	Plumber Products
Copper	58-63%	59-62%
Lead	0.5-2.5%	2.0-2.5%
Tin	0.0-1.0%	0.2-0.4%
Nickel	0.0-1.0%	0.2-0.35%
Iron	0.0-0.8%	0.2-0.3%
Aluminum	0.2-0.8%	0.3-0.4%
Manganese	0.0-0.5%	0.06-0.09%
Zinc	Balance	Balance

- b) **Brass Rod** for internal working parts IS-319-1989

Cold Extruded Brass Rod is used for headworks.

Spectro Test Certificate with each supply provided by the Manufacturer supplier with the following specifications.

Brass Rod	As per IS 319-1989
Copper	56-59%
Lead	1.5-3.0%
Tin	0.0-1.0%
Nickel	0.0-1.0%
Iron	0.0-0.8%
Aluminum	0.2-0.8%
Manganese	0.0-0.5%
Zinc	Balance

- c) **Brass Sheet** Grade CuZu 37 of IS 410-1977
d) **Copper Pipes** – Soft annealed IS 10773-1983

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2) Rubber Waster/O Ring

Synthetic Rubber (NBR Grade)

Physical Properties	Observed
Shore Hardness "A"	70-80
Tensile Strength kgf/CM ²	180-190
Elongation %	350-400
Specific Gravity	1.20 – 1.25
Compression Set%	19-22

3) Ceramic Disc Specification :-

Disc Specification

- 96% Alumina
- 76-83 Hardness R45N
- 0% Open Porosity
- 3,00,000 plus cycles expected life time

4) Nickel Chromium

a) *Coating thickness*

Particulars	IS 4827-1983 (Sc-2) (Condition-2)	Plumber Products
Copper	N.R.	10 to 12 Micron
Nickel 10 Micron	10 to 12 Micron	8 to 10 Micron
Chromium	0.3 Micron	0.3 to 0.8 Micron

b) *Resistance to Alkali*

	Requirement	Plumber Products
BS service condition-2 B287 Corrosion activated Salt Spray (See details for Service Condition at Annexure A)	24 Hrs	72 Hrs +

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Thermal Cycling

c) Adhesion Test as per BS 604.

Specifications (applicable SC2)

Service Condition Number	Temperature °C		Requirement	Plumber Products
	High	Low		
SC5 – Extended Very Severe	85	(-) 40	Minimum 3 Cycles	Passed
SC4 – Very Severe	80	(-) 40		
SC3 – Severe	80	(-) 30		
SC2 – Moderate	75	(-) 30		
SC1 – Mild	60	(-) 30		

Quenching Test for Adhesion

	Recommended Quenching Test Temperature °C	Minimum Requirement	Plumber Products
Substrate/product is heated for a sufficient time in an oven for it to near temperature shown in table with a tolerance by +10 °C then quench the same in water at room temperature	Steel – 250	One Cycle	Pass 2 Cycles
	Zinc Alloys – 150		
	Copper & Alloys – 350		
	Aluminium & Alloys- 220		

5) Flow Rate IS-8931-1993 at 3 Kg/cm² (42.67 PSI)

Particulars	Size	IS 8931-1993	Plumber Products(H.T./Q.T.)
Bib Cock/ Pillar Cock	15mm	12 LPM	Pass
Angle Cock	15 mm	12 LPM	Pass
Basin Mixer	15 mm	12 LPM	Pass
Wall Mixer	15 mm	12 LPM	Pass

6) **Pressure Test**

Economy, Longlife,
Aztec & Atlantis
No Leakage at
(Conventional and ceramic
disc Quarter Turn headworks)

IS 8931-1993

1.6 mpa=17 Kg/cm²
=241.80 psi

Plumber Products

Pass

Contd.....

- 7) Connection Pipe threads (External/internal are per IS 554 : 1985 specifications and internal threads of the body for Aerator/Accessories are metric threads
- 8) Operating Temperature is 5 ° to 80 ° C Maximum.
- 9) Internal part of cartridge along with housing made of extruded forged brass.
- 10) Uniform Water passage is as per IS specification.
- 11) For all ranges free of cost after sales services (in India) is provided by the company for 7 years.

British Standard for Specifications of Ni/Cr Coating on Copper & Copper alloy substrate

(Nonmandatory Information)

X1. DEFINATIONS AND EXAMPLES OF SERVICE CONDITIONS FOR WHICH THE VARIOUS SERVICE CONDITIONS NUMBERS ARE APPROPRIATE

- X1.1 Service Condition No. SC 5 (Extended Very Severe) — Service conditions that include likely damage from denting, scratching and abrasive wear in addition to exposure to corrosive environments where long time protection of the substrate is required; for example, conditions encountered by some exterior components of automobiles.
- X1.2 Service Condition No. SC 4 (Very Severe) — Service conditions that include likely damage from denting, scratching and abrasive wear in addition to exposure to corrosive environments where long time protection of the substrate is required; for example, conditions encountered by some exterior components of automobiles and by boat fitting in salt water service.
- X1.3 Service Condition No. SC 3 (Severe) — Exposure that is likely to include occasional or frequent wetting by rain or dew or possibly strong cleaners and saline solutions for example conditions encountered by porch and lawn furniture; bicycle and perambulator parts; hospital furniture and fixtures.
- X1.4 Service Condition No. SC 2 (Moderate) — Exposure indoors in places where condensation of moisture may occur, for example in kitchens & in bathrooms.
- X1.5 Service Condition No. SC 1 (Mild) — Exposure indoors in normally warm, dry atmosphere with coating subject to minimum wear or abrasion.

- 4.3.5 The chemical symbol for nickel (Ni),
- 4.3.6 A number indicating the minimum thickness of nickel coating, in micrometers,
- 4.3.7 A lower-case letter designating the type of nickel deposit (see 4.4 and 6.2.4),
- 4.3.8 The chemical symbol for chromium (Cr), and
- 4.3.9 A letter (or letters) designating the type of chromium deposit and its minimum thickness in micrometers (see 4. and 6.2.5),

4.4 *Symbols for Expressing Classification* – The following lower case letters shall be used in coating classification numbers to describe the types of coatings:

- a - ductile copper deposited from acid – type baths
- b - single layer nickel deposited in the fully – bright condition
- c - dull or semi-right nickel requiring polishing to give full brightness
- d - double or triple layer nickel coatings
- e - regular (that is conventional) chromium
 - mc – microcracked chromium
 - mp – microporous chromium

4.5 *Example of Complete Classification Numbers* – A coating on steel comprising 15mm minimum (ductile acid) copper plus 35mm minimum (duplex) nickel plus 0.25mm

TABLE 2: Nickel Plus Chromium Coatings on Steel

Note 1 - Results of first program indicates there is some doubt whether the coating system described by the classification numbers involving regular chromium are satisfactory for SC 4 and SC 3.

Note 2 – When permitted by the purchaser, copper may be used as an undercoat for nickel but it is not substitutable for any part of the nickel thickness specified. If the use of copper is permitted, Table 3 may be used to obtain the same services conditions.

Service Condition No.	Classification No.	Nickel Thickness (mm)
SC 5	Fe/Ni35d Cr mc	35
	Fe/Ni35d Cr mp	35
SC 4	Fe/Ni40d Cr r	40
	Fe/Ni30d Cr mc	30
	Fe/Ni30d Cr mp	30

SC 3	Fe/Ni30d Cr r	30
	Fe/Ni25d Cr mc	25
	Fe/Ni25d Cr mp	25
	Fe/Ni40p Cr r	40
	Fe/Ni30p Cr mc	30
	Fe/Ni30p Cr mp	30
SC 2*	Fe/Ni20b Cr r	20
	Fe/Ni15b Cr mc	15
	Fe/Ni15b Cr mp	15
SC 1#	Fe/Ni10b Cr r	10

* -When a dull or satin finish is require unbuffed p nickel may be substituted for a b nickel for mc bright layer of a nickel.

- p or d nickel may be substituted for b nickel in service condition no. 2 and no. 1 and mc & mp chromium may be substituted for r chromium in Service condition no. 1.

TABLE 7 Corrosion Tests Appropriate for Each Service Condition Number

Note 1 - The so called ‘neutral’ salt spray test, Practice B 117 has been generally discredited as an accelerated corrosion test for decorative nickel chromium coatings largely because of lack of reproducibility of results*. It is recognized, however, that the rest is still used in some segments of the electroplating industry to check the quality of coatings intended for use under relatively mild service conditions. Accordingly, it is suggested that any use of this test and the requirements to be met be the subject of agreement between the purchaser and the manufacturer, and further its used to be confined to the costings indicated as the appropriate for Service Conditions Nos. 2 and 1.

Note 2 -The Acetic salt Method B 267 has been discontinued.

Basic Metals	Service Condition No.	Corrosion Test and Duration h		
		CASS Method B 368	Corrolate Method B 380	Acetic Salt Method B287
steel, zinc alloy	SC 5	44	—	—
or copper and copper alloy,	SC 4	22	Two 10 h cycles	144
stainless steel	SC 3	16	18	98
and aluminum	SC 2	4	4	24
alloy	SC 1	—	—	8

* Mandizze . A- ‘Standard Salt Spray Test’ – is it a valid Acceptance Test Properties, Tests and Performance of Electro deposited Metallic coatings ASTM STP 187, ASTM 1956, p-107.

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TABLE 5 Nickel Plus Chromium^a on Stainless Steel, AISI Designated Type 300 and 400 Series^b and Aluminum Alloys.

NOTE – Before nickel-chromium plating, the stainless steel surface and the aluminum substrate shall be prepared by a pretreatment from Practice B 254^c Guide B 253^d or equivalent, which is agreed upon between the supplier and the user.

Service Condition No.	Classification No.	Nickel Thickness (mm)
SC 4	SS-3XX ^e /Ni20b/Cr mp	20
SC 4	SS-4xx ^e / Ni25b/ Cr mp	25
SC 5	Al/Cu15a/Ni40d/Cr mp	40

a- Data in Table 6 were obtained using only microporous chromium systems. No data are available for the use of standard or microcracked systems.

b- The stainless steel alloy numbers used in this specification are based on the AISI system. They may not be interchangeable with other numbering systems such as the United Numbering System (UNS) or foreign designations.

c- Preplate for stainless steel substrates

d- Preplate for aluminum substrates.

e- Insert number for specific 300 or 400 alloy.

NOTE 5 – When significant surfaces are involved on which the specified thickness of deposit cannot readily be controlled such as threads, holes, deep recesses, bases of angles and similar areas, the purchaser and the manufacturer should recognize the necessity for either thicker deposits on the more accessible surfaces or for special racking.

Special racks may involve the use of conforming auxiliary or bipolar electrodes or non-conducting shields.

6.5.3.1 The coulometric method described in Test Method B 504 may be used to measure thickness of the chromium, the total thickness of the nickel and the thickness of copper. The STEP test, Test Method B 764, which is similar to the coulometric method, may be used to closely estimate the thickness of individual layers of nickel in a multiplayer coating.

6.5.3.2 The microscopical method described in Test Method B 487 may be used to measure the thickness of each nickel layer and of the copper layer.

6.5.3.3 The X-ray method described in Test Method B 568 may be used when the total thickness of a copper/nickel/chromium composite coating is to be measured without any indication of the thickness of each individual layer.

6.5.3.4 Other methods may be used if it can be demonstrated that the uncertainty of the measurement is less than 10% or less than that of any applicable method mentioned in 6.5.3. Other methods are outlined in Guide B 659.

6.6 *Corrosion Testing*

6.6.1 Coated articles shall be subjected to the corrosion test for a period of time that is appropriate for the particular service condition (or for the service condition number corresponding to a specified classification number as shown in Table 7. The test is described in detail in the referenced ASTM designation.

NOTE 6 - There is no direct relation between the results of an accelerated corrosion test and the resistance to corrosion in other media because several factors, such as the formation of protective films influence the progress of corrosion and vary greatly with the conditions encountered. The result obtained in the test should, therefore, not be registered as a direct guide to the corrosion resistance of the tested materials in all environments where these materials may be used. Also, performance of different materials in the test cannot always be taken as a direct guide to the relative resistance of these materials in service.

6.6.2 After the article has been subjected to the treatment described in the relevant corrosion test method, it shall be examined for corrosion of the basis metal or blistering of the coating shall because for rejection. It is to be understood that occasional widely scattered, small corrosion defects may be observed after the testing period. In general, "acceptable resistance" shall mean that such defects are not, when viewed critically, significantly defacing or otherwise deleterious to the function of the electroplated part. A method of rating corrosion is given in Practice B 537.

6.6.3 Surface deterioration of the coating itself is expected to occur during the testing of some types of coatings. The exact to which surface deterioration will be tolerated shall be specified by the purchaser.

6.7 *STEP Test Requirements*

6.7.1 The electrochemical potential differences between individual nickel layers shall be measured for multilayer coatings corresponding to SC 5, SC 4 and SC 3 I accordance with Test Method D 764 (STEP Test).

NOTE 7 - Universally accepted STEP values have not been established but some agreement in the value of ranges has been obtained. The STEP values depend upon which two nickel layers are being measured.

The STEP potential difference between the semi-bright nickel layer and the bright nickel layer has a range of 100 to 200 mV. For all conditions of nickel layers, the semi-bright nickel layer is more noble (cathode) than the bright nickel layer.

The STEP potential difference between high activity nickel layer and the bright nickel layer in triple layer coatings has a potential image of 1 to 36 mV. The high activity nickel layer is more active (anode) than the bright nickel layer.

The STEP potential difference between the bright nickel layer and the nickel layer between the nickel layer and the chromium layer has a potential range of 0 to 30 mV. The bright nickel layer is more active (anodic) than the nickel layer prior to chromium.

TABLE 7 Corrosion Tests Appropriate for Each Service Condition Number

Note 1 - The so called ‘neutral’ salt spray test, Practice B 117 has been generally described as an accelerated corrosion test for decorative nickel chromium coatings largely because of lack of reproducibility of results. It is recognized, however, that the test is still used in some segments of the electroplating industry to check the quality of coatings in intended for use under relatively mild service conditions. Accordingly, it is suggested that any use of this test and the requirements to be met be the subject of agreement between the purchaser and the manufacturer, that its use be confined to the coatings indicated the appropriate for Service Conditions Nos. 2 and 1.

Note 2 - The Acetic salt Method B 267 has been discontinued.

Basic Metals	Service Condition No.	Corrosion Test and Duration h		
		CASS Method B 360	Corrolate Method B 360	Acetic Salt Method B287
steel, zinc alloy	SC 5	44	—	—
or copper and copper alloy,	SC 4	22	Two 10 h cycles	144
stainless steel	SC 3	16	18	98
and aluminum alloy	SC 2	4	4	24
	SC 1	—	—	8

* Mandizze A.- ‘Standard Salt Spray Test’ is it a valid Acceptance Test Properties, Tests and Performance of Electro deposited metallic coatings ASTM STP 197, ASTM 1956, p-107