

India's No. 1 in Quality

NEW

Pipe Fittings

ISO : 9001 Company



Reliability in the real sense



Satish Kumar Bighamal,
Managing Director



Rajeev Kumar Bighamal
Joint Managing Director

FROM THE MANAGING DIRECTOR'S DESK

Significant changes have taken place in the economic scenario during the past decade. Increased global competition has brought in both challenges and opportunities. The challenge is to not only retain the market share but also to increase it steadily through quality consciousness and stable pricing. The opportunity is to become truly global players by competing in both national and international market. The vision, mission and values must translate into objectives, strategies and plans for overall growth and improvement. Technical knowledge and application of right methods as well as fixing the priorities result into marked improvement. Doing things differently instead of doing different things leads to high quality, excellence, perfection and customer delight. **NEW** Brand Pipe Fittings of **Green Manufacturing Co. Limited**, our pioneer company, has been able to achieve the distinguished position in the market with the patronage and co-operation of a wide network of dealers, distributors and consumers. We are fully equipped to meet all challenges and achieving the top position in quality manufacturing and market leaders of **NEW** Brand Pipe Fittings.



COMPANY PROFILE

GREEN MANUFACTURING CO. LIMITED is a leading unit in organised sector engaged in manufacturing heavy cast iron malleable galvanized pipe fittings in North India, promoted by highly experienced, qualified and dynamic entrepreneurs, the company targets to achieve unmatched quality, customer satisfaction and competitive pricing. The latest plant and machinery installed by the company is managed by a competent team of professionals in engineering and technology. **NEW** Brand Pipe Fittings, the product of the company, have been widely accepted in the market due to superb quality and superior craftsmanship. Due to its commitment towards quality consciousness, development of systems and implementation methods, the company has been awarded **ISO 9001** Certification from **LLOYDS REGISTER QUALITY ASSURANCE (LRQA)** of the U.K. **NEW** Brand Pipe Fittings are specially designed for underground use, are absolutely free from breakage and leakage and have a life sufficient enough for user satisfaction. Consequently, in a short span of time, the product has been widely accepted in the agriculture, industrial and domestic market.



PRODUCT

In accordance with expectations of the customers seeking outstanding quality at affordable and competitive costs, **NEW** Brand Pipe Fittings, our prestigious product is fulfilling the aspirations of our valued consumers. Processed through latest manufacturing techniques, the product excels in quality and longevity. **NEW** Brand Pipe Fittings do not break or even crack while getting fixed into the pipes. Their high malleability can withstand greater tightening force applied for firm and leak proof joints.

Accurate and perfect thread alignment of **NEW** Brand Pipe Fittings makes them suitable for connection to pipes at required different angles, this leads to saving of time and labour and ensures free and uninterrupted flow of water.

NEW Brand Pipe Fittings are properly galvanized at specified temperature in galvanizing furnace with latest techniques. This makes them absolutely corrosion free requiring no replacement whatsoever.

Before being brought into the market, **NEW** Brand Pipe Fittings are subjected to thorough physical and chemical testing. Produced in line with international standards, these are comparable to British and American products both in quality and price.



NEW SPECIAL FEATURES

- ★ 100% testing of input materials.
Standard specification material only used.
- ★ Standard precession/ tolerances maintained
- ★ Melting under controlled temperature to withstand internal/external pressure.
- ★ Heat treatment under controlled temperature and pressure for standard malleability and ductility.
- ★ Each product tested & checked for uniform, clean and smooth galvanizing.
- ★ Designed for effortless use by the plumbers.
- ★ Standard threading maintained with uniformity and at accepted tolerance.



RESEARCH & DEVELOPMENT

It is the basic strategic policy matter of the company to assign sufficient funds for the Research and Development programs for continuous improvement of **NEW** Brand Pipe Fittings. The design, physical and chemical properties of the Pipe Fittings are continuously improved for which assistance of eminent consultants and scientists are availed by the company. Stringent testing norms are followed under the supervision of highly technical and experienced personnel.



MATERIAL SPECIFICATION

Company confines to Standard Specification material.

PRODUCT SPECIFICATION

- A. Black heart Malleable cast iron as per IS : 14329-1995 Grade BM - 300.
- B. Threaded as per IS 554-1999, parallel female & taper male threads.
- C. Galvanized as per IS 4759-1996

TESTING SPECIFICATION FOR INPUTS

Pig Iron, Zinc, Oils, consumable stores and all inputs required in production process are tested for its physical and chemical properties as per the standard specifications.

INTERMEDIATE PROCESS CHECK SPECIFICATIONS

After checking raw casting for blow holes, cold shuts, hard spots, shift and sand depth by Super specialised supervisors, the product is shifted for further operation.

Annealed castings 100% free from cracks and distortion are transferred to surface cleaning section.

Grinding, shot blasting & surface smoothening for uniform finish strictly monitored in operational system.



Before passing the product to machine shop a streamlined system is used to produce lusturous, smooth and uniform galvanizing.

Continuous inspection is maintained during the threading of the products in the automatic machines to ensure the perfect alignment and gauging.

Sophisticated instrumental check is induced at every step to strengthen the quality control measures at every stage of manufacturing.

Lab tests are the part of the whole system and are subjected to all standard physical and chemical tests.

Internal Hydraulic Pressure	20 Kgf/cm ²
Internal Air Pressure	7.5 Kgf/cm ²
Max. Working Pressure for water	20 Kgf/cm ²
For oil Steam,Saturated Gas, Air	11 Kgf/cm ²

SPECIAL NEW TESTS

- ★ Malleability Test
- ★ Tensile Test
- ★ Elasticity Test
- ★ Hydraulic Test



PRODUCTION CONTROL SYSTEMS

CASTING

Ultra modern insulated rotary furnaces are used to produce malleable castings with sophisticated hot metal handling equipments. In order to produce precision casting, the foundry is supervised by highly experienced metallurgists. The company has provided pollution free foundry to provide excellent environment for the workers to ensure quality production.



ANNEALING

Sophisticated heat treatment procedures are followed under technically qualified staff. This is done to qualify the structure of the product in order to assure subsequent malleability and ductility. In this manner the ultimate product withstands higher internal and external pressure without developing cracks.



GRINDING & SURFACE CLEANING

The most vital operation in the production system is Smooth surface cleaning of **NEW** Brand Pipe Fittings. The Hi-Tech machinery and equipments are used in the process of grinding, shot blasting and surface smoothening. This gives **NEW** Brand Pipe Fittings the two essential qualities of lustre and uniformity.



GALVANIZING

NEW Brand Pipe Fittings are galvanized by Hot Dip Process. Proper surface cleaning and surface smoothening is done before galvanizing the product. Special high grade Zinc (99.99% purity) is used in the process. As a result, the galvanizing exceed the minimum standards laid by the Indian Standards Institute and **NEW** Brand Pipe Fittings lustrous and smooth. Our Research and Development Wing has practically demonstrated that utilization life of **NEW** Brand Pipe Fittings is doubled by using these procedures and high grade metal.



CHAMFERING

After galvanizing process and before entering into the process of threading the **NEW** Brand Pipe Fittings are chamfered using Hi-Tech Chamfering Machines. This helps in easy entrance of pipe and correct first thread engagement.



HI TECH THREADING

Sophisticated automatic threading machines are used in order to keep the threads clear and free from dregs. Threading is done simultaneously in all outlets with the help of HSS ground taps. Perfect threads, alignments and angles are monitored with equipments developed by our Research & Development Wing. Qualified technicians and engineers supervise all the process to ensure excellent quality of the product.



SPECIAL **NEW** PIPE FITTING PACKING



Our reasearch and development wing has designed quadruplicate packing for **NEW** Brand Pipe Fittings to secure the products from any damage that may be caused by improper handling.



After final checking & systematic inspections, **NEW** brand pipe fittings are packed as follows
NEW Pipe Fittings are packed in polypropylene printed pouches.

Standard number of pieces as per printed specification are packed in multi coloured printed card board boxes and can be handled with ease by the retailers without disturbing the quality of the product.



Special care is taken for the safety of the products and accordingly the mini boxes are sealed in poly layer by automatic shrink packaging machine.

Pre printed corrugated boxes are used to pack the mini cardboard poly shrunk pack boxes



as per the standard specification of the company.

Final sealing of the carton is done in strapping machine by using printed **NEW** straps.



WHY CUSTOMER DEMAND "NEW" BRAND PIPE FITTINGS



Being highly malleable, **NEW** Brand Pipe Fittings do not break or even crack while fixing into the pipes. They can withstand greater tightening force for firm and leak proof joints. The dimensional accuracy of **NEW** Brand Pipe Fittings ensures effortless assembling leading to saving of time, labour and energy.

Accurate and perfect thread alignment of **NEW** Brand Pipe Fittings makes them suitable for connection to pipes at required different angles, this leads to uninterrupted and free flow of water.

NEW Brand Pipe Fittings are properly galvanized at specified temperatures in galvanizing furnace with latest techniques. This makes them absolutely corrosion free requiring no replacement whatsoever.

COMPARATIVE STATUS OF TECHNICAL SPECIFICATIONS

A look on various standard specifications for hot galvanized cast iron malleable pipe fittings for different countries as follows will reveal that **NEW** Brand Pipe Fittings enjoy better status.

SPECIFICATIONS	"NEW"	ISS	ISO	BSS	JIS
Minimum Tensile Strength (Kgf/mm ²)	32	30.6	30	28	28
Minimum Elongation(%)	8	6	6	6	5
Minimum Zinc Coating (gms/m ²)	660	610	450	450	
Minimum Working Pressure (Kgf/cm ²) Hydraulic	20	14	20	14	20
Angle Tolerance Degree	(+/-) 0.50	1.00	0.50	0.45	0.40



SCOPE OF APPLICATION

NEW Brand Pipe Fittings are specially designed for underground usage. These are extremely suitable for installation in agricultural, industrial and domestic sector.

NEW Brand Pipe Fittings being superb in quality, can be safely used in various structures to ensure that the high costs involved in constructions like high value marbles, tiles and paints etc. are safeguarded. Due to their durability and accuracy, **NEW** Brand Pipe Fittings command maximum acceptability in the followings:

- A.** All type of constructions including multistorey buildings.
- B.** Steel plants, Refineries, Docks and Shipyards.
- C.** Thermal plants
- D.** All types of supplies of Air, Water & Oil industries.
- E.** Agriculture
- F.** Water supply schemes in cities and villages.



IMPORTANT

Due to continuous development program of our research and Development Wing, the design and data in this catalogue are subject to change without notice.

Special attention of consumers is invited to check the lines with the help of pressure pumps before covering the concealed or underground installations.



ADVANTAGES OF USING NEW BRAND PIPE FITTINGS



Being highly malleable, **NEW** Brand Pipe Fittings do not break or even crack while fixing into the pipes. They can withstand greater tightening force for firm and leakproof joints.

The dimensional accuracy of **NEW** Brand Pipe Fittings ensures effortless assembling leading to saving of time, labour and energy.



Accurate and perfect thread alignment of **NEW** Brand Pipe Fittings makes them suitable for connection to pipes at required different angles, this leads to uninterrupted and free flow of water.

NEW Brand Pipe Fittings are properly galvanized at specified temperatures in galvanizing furnace with latest techniques. This makes them absolutely corrosion free requiring no replacement whatsoever.



PROCESS



Raw Material



Rotary



Chamfering



Galvanizing



Threading



Poly Packing

FLOW CHART



Moulding Box



Annealing



Shot Blasting



Grinding



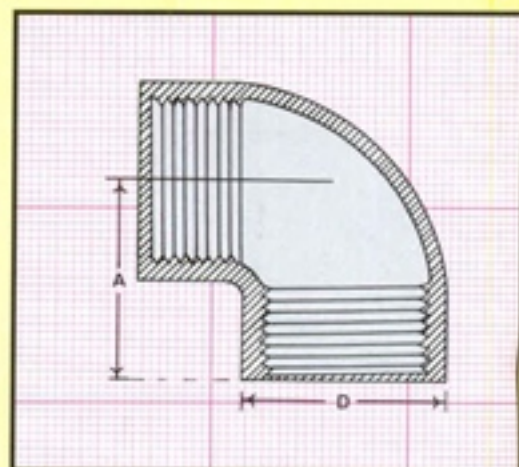
Box Packing



Carton Packing



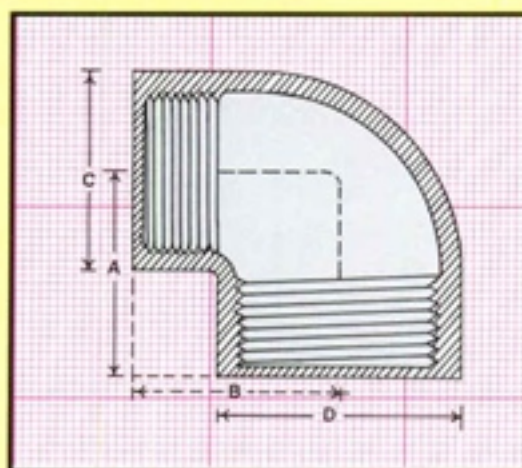
ELBOW



Nominal Size in mm	A in mm	D in mm	Wt. in grams
15	34	30.5	175
20	39	36.5	225
25	43	42.0	295
32	48	51.5	445
40	52	58.5	550
50	61	71.5	850
65	73	89.0	1570
80	83	102.0	2100
100	101	129.0	3900
150	134	181.0	8000

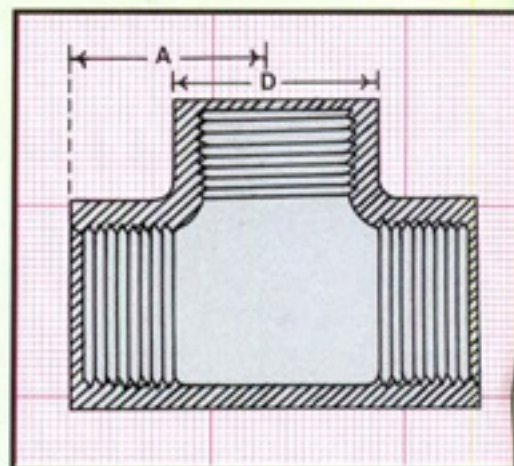


REDUCING ELBOW



Nominal Size in mm	A in mm	B in mm	C in mm	D in mm	Wt. in grams
20 x 15	35	36	30.5	36.5	205
25 x 15	37	39	30.5	42.0	250
25 X 20	40	41	36.5	42.0	280
32 X 15	37	43	30.5	51.5	310
32 X 20	40	45	36.5	51.5	335
32 X 25	42	46	42.0	51.5	380
40 X 15	38	46	30.5	58.5	360
40 X 20	41	48	36.5	58.5	400
40 X 25	44	50	42.0	58.5	430
40 X 32	49	51	51.5	58.5	515
50 X 15	40	53	30.5	71.5	510
50 X 20	43	54	36.5	71.5	570
50 X 25	46	56	42.0	71.5	590
50 X 32	51	57	51.5	71.5	720
50 X 40	54	58	58.5	71.5	710
65 X 15	46	62	30.5	89.0	810
65 x 20	48	63	36.5	89.0	915
65 x 25	49	63	42.0	89.0	950
65 x 32	55	67	51.5	89.0	1210
65 x 40	58	68	58.5	89.0	1150
65 x 50	64	70	71.5	89.0	1390
80 x 15	47	70	36.5	102.0	920
80 x 20	48	70	36.5	102.0	920
80 x 25	52	71	42.0	102.0	950
80 x 32	57	75	51.5	102.0	1440
80 x 40	60	76	58.5	102.0	1500
80 x 50	68	78	71.5	102.0	1760
80 x 65	73	79	89.0	102.0	1910
100 x 15	54	80	30.5	129.0	1530
100 x 20	56	82	36.5	129.0	1530
100 x 25	58	87	42.0	129.0	1550
100 x 32	66	89	51.5	129.0	2400
100 x 40	70	91	58.5	129.0	2700
100 x 50	76	93	71.5	129.0	2800
100 x 65	83	97	89.0	129.0	2900
100 x 80	88	98	102.0	129.0	3000

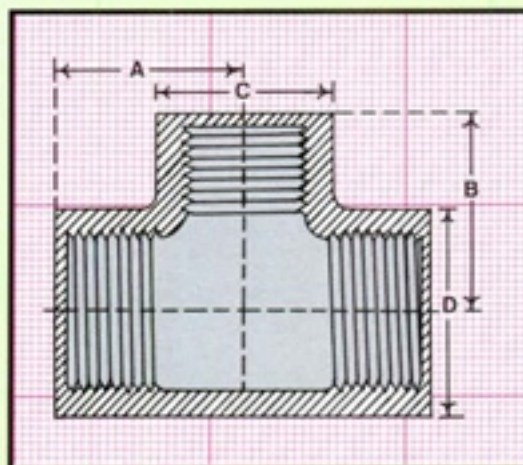
TEE



Nominal Size in mm	A in mm	D in mm	Wt. in grams
15	32.5	30.5	230
20	36.0	36.5	295
25	41.0	42.0	375
32	47.0	51.5	580
40	51.0	58.5	705
50	60.0	71.5	1150
65	72.5	89.0	1900
80	80.0	102.0	2560
100	99.0	129.0	4500
150	132.0	181.0	9900

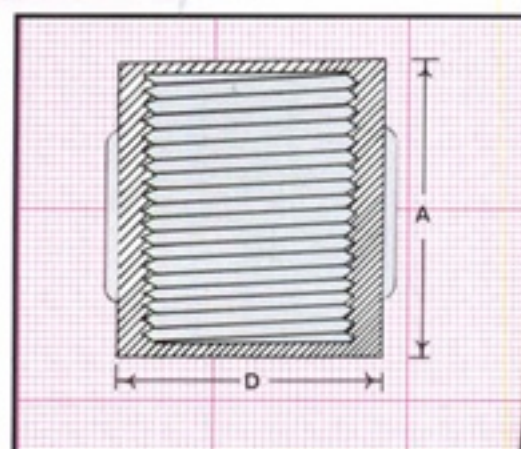


REDUCING TEE



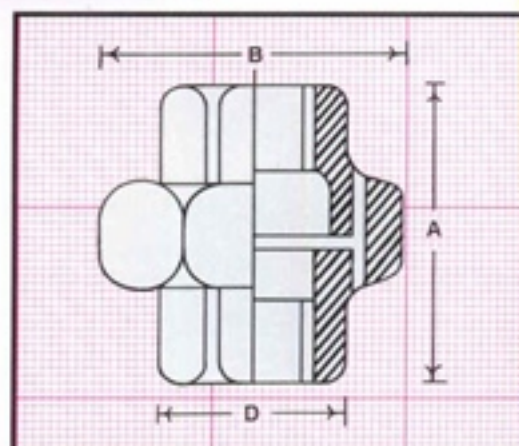
Nominal Size in mm	A in mm	B in mm	C in mm	D in mm	Wt. in grams
20 x 15	33	35	30.5	36.5	270
25 x 15	35	39	30.5	42.0	320
25 x 20	38	39	36.5	42.0	345
32 x 15	36	42	30.5	51.5	415
32 x 20	38	43	36.5	51.5	450
32 x 25	43	45	42.0	51.5	500
40 x 15	38	45	30.5	58.5	465
40 x 20	40	46	36.5	58.5	525
40 x 25	44	48	42.0	58.5	565
40 x 32	48	49	51.5	58.5	655
50 x 15	45	52	30.5	71.5	700
50 x 20	42	53	36.5	71.5	740
50 x 25	45	55	42.0	71.5	785
50 x 32	49	56	51.5	71.5	895
50 x 40	52	58	58.5	71.5	940
65 x 15	39	62	30.5	89.0	1150
65 x 20	45	63	36.5	89.0	1110
65 x 25	48	65	42.0	89.0	1235
65 x 32	53	66	51.5	89.0	1385
65 x 40	56	67	58.5	89.0	1425
65 x 50	62	69	71.5	89.0	1625
80 x 15	45	70	30.5	102.0	1425
80 x 20	47	71	36.5	102.0	1435
80 x 25	51	71	42.0	102.0	1600
80 x 32	55	74	51.5	102.0	1725
80 x 40	58	74	58.5	102.0	1825
80 x 50	64	77	71.5	102.0	1965
80 x 65	73	78	89.0	102.0	2365
100 x 15	53	83	30.5	129.0	2000
100 x 20	54	83	36.5	129.0	2000
100 x 25	59	84	42.0	129.0	2050
100 x 32	64	88	51.5	129.0	2200
100 x 40	67	89	58.5	129.0	2200
100 x 50	71	90	71.5	129.0	3000
100 x 65	79	92	89.0	129.0	3400
100 x 80	86	94	102.0	129.0	3600

SOCKET



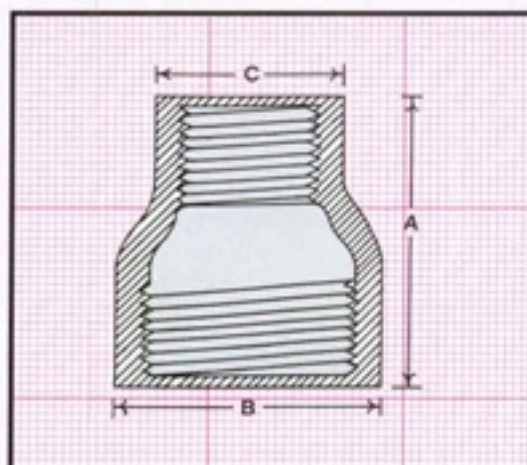
Nominal Size in mm	A in mm	D in mm	Wt. in grams
15	37.0	30.5	115
20	41.0	36.5	150
25	46.0	42.0	195
32	52.5	51.5	305
40	57.5	58.5	350
50	67.0	71.5	645
65	78.0	89.0	980
80	84.0	102.0	1290
100	98.0	129.0	2040
150	113.0	181.0	3700

UNION



Nominal Size in mm	A in mm	B in mm	D in mm	Wt. in grams
15	52	48	30.5	295
20	61	56	36.5	430
25	66	64	42.0	590
32	75	74	51.5	825
40	76	80	58.5	950
50	83	94	71.5	1375
65	90	119	89.0	2210
80	98	133.0	102.0	3100
100	115	157.0	129.0	4150
150	150	235.0	181.0	9800

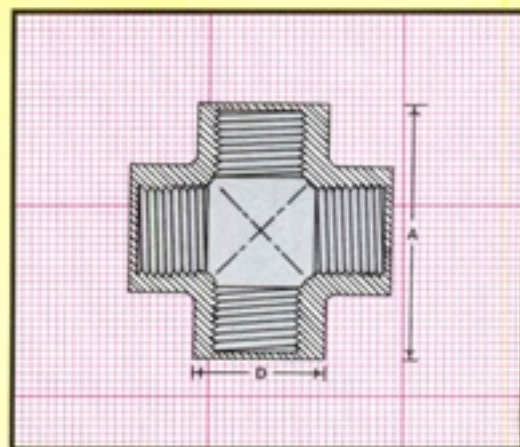
REDUCING SOCKET



Nominal Size in mm	A in mm	B in mm	C in mm	Wt in grams
20 x 15	41	36.5	30.5	135
25 X 15	49	42.0	30.5	180
25 x 20	49	42.0	36.5	180
32 X 15	54	51.5	30.5	240
32 X 20	54	51.5	36.5	240
32 X 25	54	51.5	42.0	255
40 X 15	59	58.5	30.5	290
40 X 20	59	58.5	36.5	295
40 X 25	59	58.5	42.5	320
40 X 32	59	58.5	51.5	350
50 X 15	70	71.5	30.5	450
50 X 20	70	71.5	36.5	470
50 X 25	70	71.5	42.0	470
50 X 32	70	71.5	51.5	500
50 X 40	70	71.5	58.5	515
65 X 15	78	89.0	30.5	750
65 x 20	78	89.0	36.5	780
65 x 25	78	89.0	42.0	770
65 x 32	78	89.0	51.5	835
65 x 40	78	89.0	58.5	840
65 x 50	78	89.0	71.5	875
80 x 15	83	102.0	30.5	950
80 x 20	83	102.0	36.5	970
80 x 25	83	102.0	42.0	990
80 x 32	83	102.0	51.5	1085
80 x 40	83	102.0	58.5	1110
80 x 50	83	102.0	71.5	1040
80 x 65	83	102.0	89.0	1210
100 x 15	99	129.0	30.5	1670
100 x 20	98	129.0	36.5	1670
100 x 25	98	129.0	42.0	1700
100 x 32	96	129.0	51.5	1710
100 x 40	96	129.0	58.5	1720
100 x 50	96	129.0	71.5	1800
100 x 65	96	129.0	89.0	1860
100 x 80	96	129.0	102.0	1900

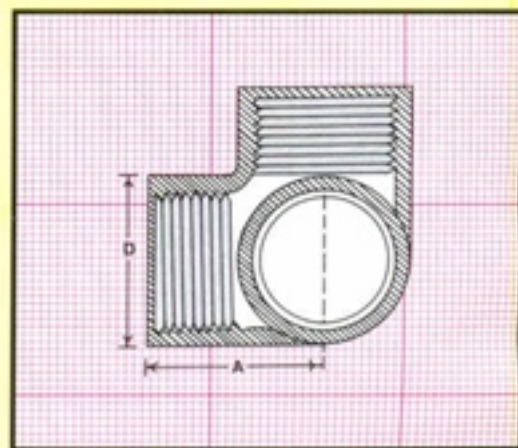


CROSS



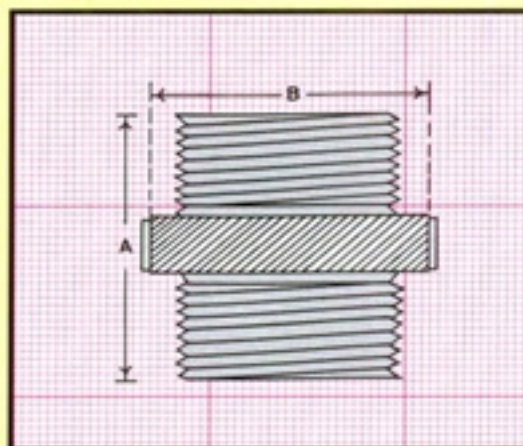
Nominal Size in mm	A in mm	D in mm	Wt. in grams
15	62	30.5	240
20	70	36.5	325
25	80.0	42.0	430
32	92	51.5	640
40	102	58.5	780
50	120	71.5	900

3- WAY ELBOW



Nominal Size in mm	A in mm	D in mm	Wt. in grams
15	33	30.5	230
20	36	36.5	300
25	42	42.0	380
32	48	51.5	490
40	52	58.5	660
50	61	71.5	1100

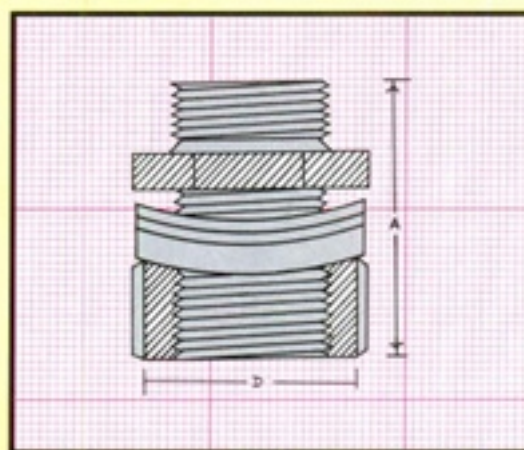
NIPPLE



Nominal Size in mm	A in mm	B in mm	Wt. in grams
15	52	27	100
20	54	30	135
25	62	38	215
32	66	47	350
40	71	54	400
50	81	67	670
65	91	85	880
80	100	97	1380
100	122	125	2400
150	154	195	5800



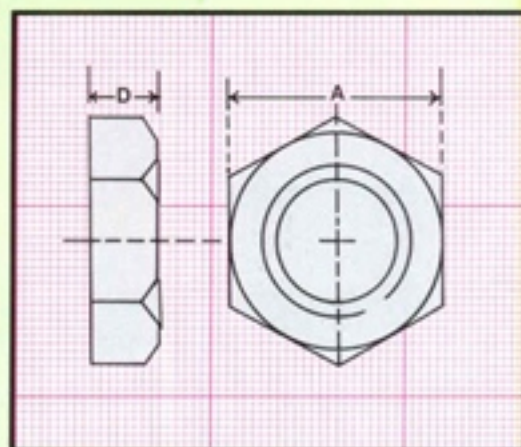
TANK NIPPLE



Nominal Size in mm	A in mm	D in mm	Wt. in grams
15	60.0	30.5	200
20	65.0	36.5	275
25	74.0	42.0	405
32	98.0	51.5	565
40	106.0	58.5	890
50	128.0	71.5	1520

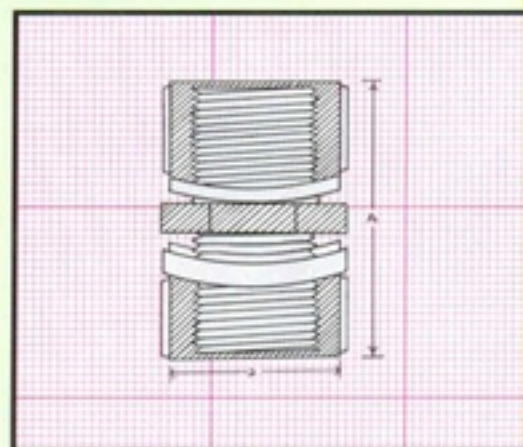


CHECK NUT



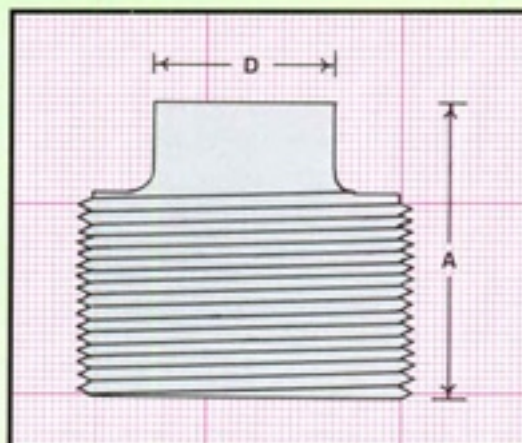
Nominal Size in mm	A in mm	D in mm	Wt. in grams
15	33	10	45
20	38	11	55
25	47	12	90
32	57	13	145
40	63	14	175
50	75	15	260

LONG NIPPLE



Nominal Size in mm	A in mm	D in mm	Wt. in grams
15	80	30.5	300
20	90	36.5	430
25	105	42.0	605

PLUG

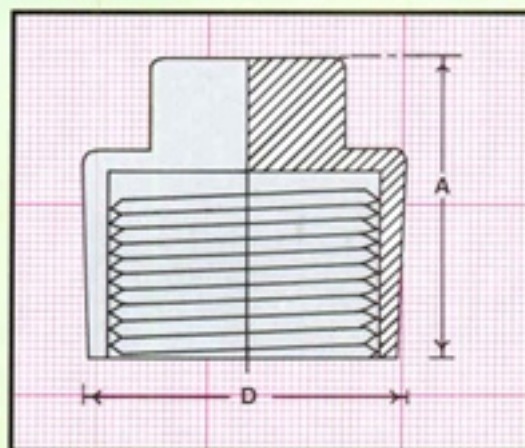


Nominal Size in mm	A in mm	D in mm	Wt. in grams
15	27	17	45
20	30	19	65
25	31	20	105
32	37	23	190
40	38	24	250
50	45	26	400
65	46	34	490
80	46	39	640
100	52	47	1200

India's No. 1 in Quality
NEW
Pipe Fittings



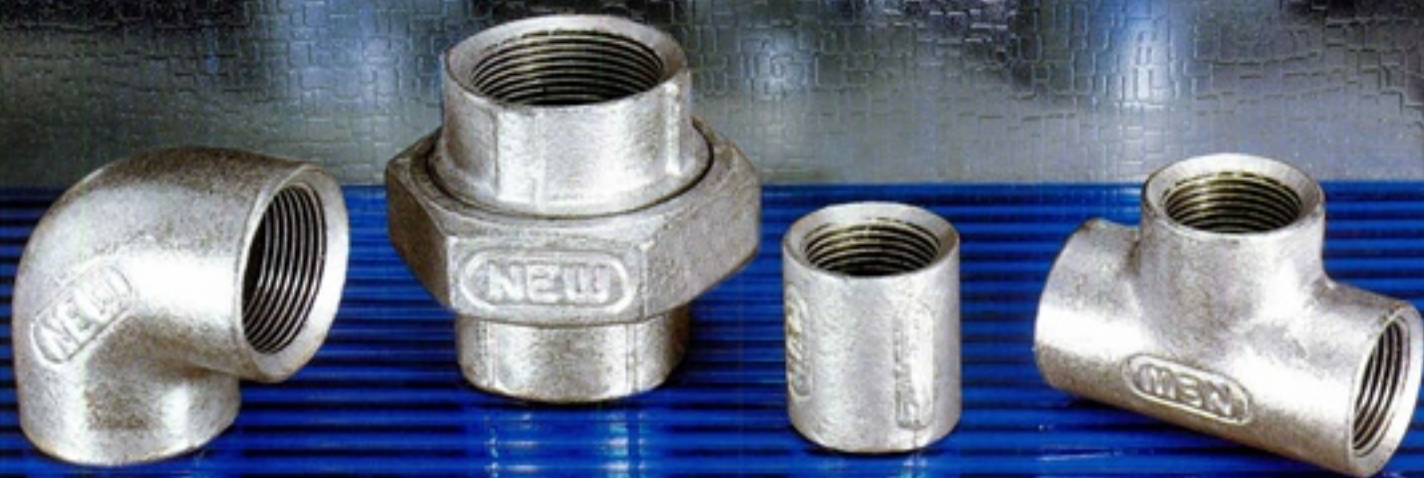
CAP PLUG



Nominal Size in mm	A in mm	D in mm	Wt. in grams
15	37	30.5	100
20	39	36.5	140
25	42	42.0	180
32	51	51.5	315
40	53	58.5	390
50	58	71.5	585
65	58	89.0	650
80	62	102.0	1030
100	73	129.0	1410









CERTIFICATE OF APPROVAL

This is to certify that the Quality Management System of:

Green Manufacturing Co. Limited

**C - 20, Canal Road,
Industrial Area,
Jalandhar - 144 004,
Punjab.**

has been approved by Lloyd's Register Quality Assurance
to the following Quality Management System Standards:

BS EN ISO 9001 : 2000 IS / ISO 9001 : 2000

The Quality Management System is applicable to:

**Manufacture of galvanised/black malleable cast iron pipe
fittings to national/international standards and customer
requirements (size 1/4" to 6").**

Approval
Certificate No: I 60454

Original Approval: 27th December 2000

Current Certificate: 26th September 2001

Certificate Expiry: 31st December 2003

Issued by: LRQA, India



This approval is carried out in accordance with the LRQA assessment and certification procedures and monitored by LRQA.
The use of the UKAS Accreditation Mark indicates Accreditation in respect of those activities covered by the Accreditation Certificate Number 001.
Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2000 requirements may be obtained by consulting the organisation.
Metric rev 4.0

Reliability in the real sense.



India's No.1 in Quality

NEW

Pipe Fittings





Green Manufacturing Co. Limited

C-20, Canal Road, Industrial Area, Jalandhar City - 144004.

Phones :- 293314-293389, 293615 Fax :- 91-181-293389

E-mail :- newgreen@rediffmail.com