



IS: 3989-2009




**Foremost Quality  
Centrifugally Cast Iron Pipes,  
Fittings for Soil Waste, Vent,  
Rainwater & Manhole Covers**



*55 Years Of Excellence*

**'SKF' IS THE SYNONYMOUS OF QUALITY & COMMITMENT**




Way back in 1972, we started our operation in Mathura (U.P) as a manufacturer of Cast Iron Pipes, Fittings & Manhole covers having registered trade mark  with the name & style of Shri Krishna Iron Foundry.

Shri Krishna Iron Foundry with its dedicated efforts established a reputation of manufacturing & delivering superior quality and got registered with the Bureau of Indian Standard w.e.f. April, 1983. with BIS Code IS : 1729

To meet the demand and supply ratio there was a necessity to increase the volume of production. Therefore, we came into corporate sector on 31st March 1994 with the name & style of NARSI Iron & Steels Pvt. Ltd.

Today, we are known in the domestic and overseas markets as a symbol of trust. We have developed this enviable position with quality recognition given to us by our valuable clients and our dedicated efforts.

Further, to fuel our growth and fulfill our vision we have joined hands with 45 years experienced 'Singhal Iron Foundry Pvt. Ltd. Farah, Mathura and equipped the company with the latest machinery and technological know how to build a matchless tradition in the foundry industry.

With unmatched quality & timely delivery of goods at most competitive rates, our unit covers Jammu, Punjab, Haryana, Maharashtra, Rajasthan, Delhi, Uttar Pradesh, Uttrakhand and other States of India. We have delivered our goods to most of the major Projects of Govt, Semi Govt. & Private firms. In most of the departments our brand  is in vendor lists.

To meet the increasing demand for centrifugal pipes & fittings, We have stepped to wards manufacturing centrifugal pipes & fittings with IS Code IS : 3989 - 2009, as we believe in standardised and quality products.

We carry out all jobs right from simple casting to the most sophisticated one with equal ease.

We will feel highly honoured to answer your queries if any and assure you of our best services always.



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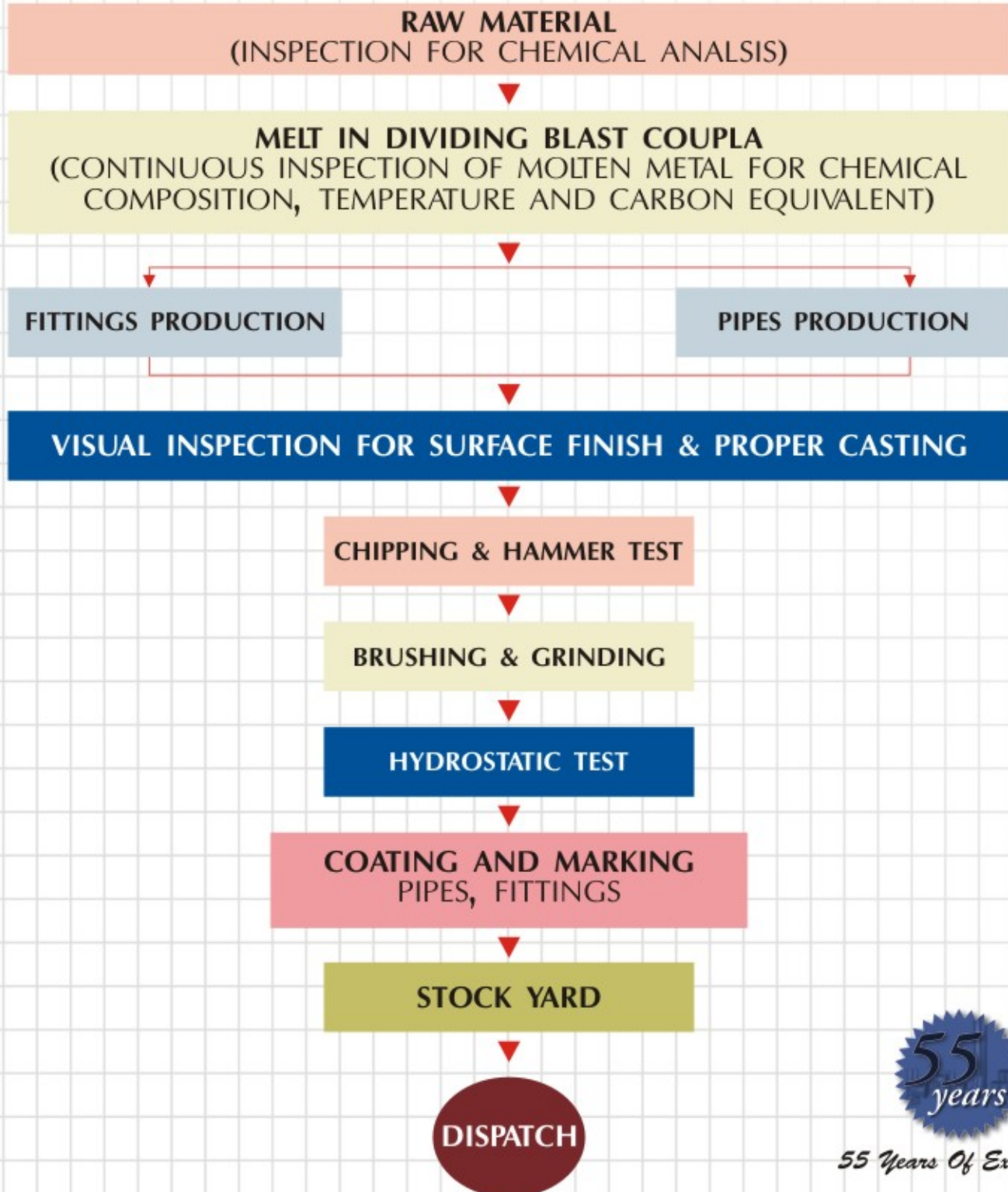




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## Manufacturing Process Chart




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The durability and quality of  is superior to any other brand due to the following characteristics :

- Suitable for the application of soil, waste, ventilation and rain water disposal in the building drainage system.
- Products conforms the specifications of IS : 3989 - 2009.

Available in the normal size of : 50 mm, 75 mm, 100mm, 150mm & 200mm.

### Chemical Properties :

C	-	3.5 % 3.75 %
Si	-	1.8 % to 2.3 %
CE	-	4.3

### Tests Applied :

**Hammer Test:** For clear ringing soundness of casting.



**Hydrostatic Test ( Internal ):** It should bear water Pressure at min 0.7 Kg/cm<sup>2</sup> for at least 15 secs. time

**Coating Test :** For no brittle at 0° C and no flow up to 65 0° C temperature.

### Mechanical Properties :

Material Grade	-	FG 150 as per IS:210
Density	-	7.15 kg/m <sup>3</sup>
Tensile Strength	-	150 N/m <sup>2</sup> minimum
Hardness	-	215 IID maximum as per IS:1500

### Marking:

All Pipes & Fittings carry the brand name  mark nominal diameter,  symbol with code, licence No. & last two digits of the year of manufacturing.

### WHY CAST IRON PIPES & FITTING ONLY

Durability & Long Life is a proven and time tested in cast iron. Experience of thousands of users for a century and more laid Cast iron pipes because it fulfills all the requirements of the drainage system. Cast iron pipes have more standing **high pressure resistance** to wear & tear, resistance to corrosion to a great extent. Resistance to abrasion from any type of disposal residue, resistance to temperature.

Cast iron pipes are **environment friendly** . It can be recycled 100%. **Co-efficient of thermal expansion and contraction in C.I. material is very low**, hence it is not only fire proof but chances of deformation in the size & length of Pipes & Fittings are negligible by any change in temperature. In case of fire it will not produce any smoke poisonous & toxic gasses, resulting to which its easy for fireman while entering the building. C.I. can stand up to temperature of 400°C and have good bonding property with concrete hence does **not leak at the joints** of its with building.

C.I. drainage system **can be cleaned with push or sharp rod**. C.I. is the **toughest material** and it could be concealed in the building.

Because of its strength and resistance from damaging, C.I. has Nil Maintenance cost and securing salvage value.

**Cast iron is the ideal drainage system.**

### COMPARISON AT A GLANCE BETWEEN uPVC PIPES AND 'SKF' C.I. SOIL PIPES & FITTINGS:

Specific density of C.I. is higher by 5700 kg/m<sup>3</sup>. Tensile strength is higher by 95 N/m<sup>2</sup>, Compressive strength is higher by 540 N/m<sup>2</sup>, Coefficient of thermal expansion of C.I. is low by 0.06 mm/m°C, impact strength, abrasion resistance & lateral strength is high of cast iron.

### COMPARISON AT A GLANCE BETWEEN 'SKF' C.I. SOIL PIPES & FITTINGS AND HEST & CEMENT PIPES:

Cast iron pipe is 6.68 times stronger than hest & cement pipe to bear beam loads and 3.51 time stronger for resisting internal pressure.

**Cast iron pipes have full recovery of value on demolition of building or its removal for renovations.**



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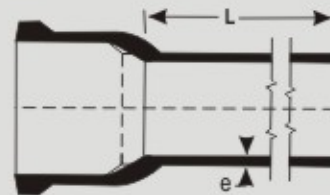


## DIMENSIONS OF STRAIGHT PIPES, SOCKETS AND SPIGOTS

### MASS & DIMENSIONS OF SOCKET AND SPIGOT OF PIPES

NOMINAL DIAMETER DN	THICKNESS Ø	APPROXIMATE MASS INCLUDING MASS OF SOCKET FOR PIPES OF LENGHT (L) METERS					
		3.00m (kg)	2.50m (kg)	2.00m (kg)	1.80m (kg)	1.50m (kg)	1.00m (kg)
75	3.5	20.0	16.8	13.8	12.5	10.6	7.4
100	4.0	30.0	25.5	21.0	18.8	16.0	11.2
150	5.0	56.0	47.0	38.5	34.9	29.5	21.0
200	6.0	90.0	70.9	56.7	51.0	42.5	33.0

Dimensions are in mm



### MASS & DIMENSION OF SOCKETS AND SPIGOT OF PIPES

NOMINAL DIAMETER DN	BARREL		SOCKET		JOINT THICKNESS F
	e	DE	DI	P	
75	3.5	83	99	65	8.0
100	4.0	109	126	70	8.5
150	5.0	161	179	75	9.0
200	6.0	212	242	85	15.0

Dimensions are in mm



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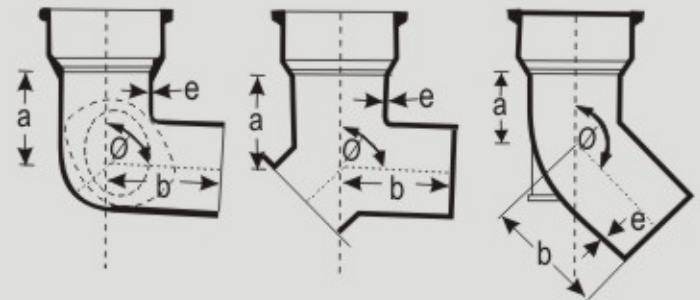


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### BENDS WITH AND WITHOUT ACCESS DOORS

ANGLE	NOMINAL DIAMETER Ø DN	DIMENSIONS			APPROXIMATE MASS OF BEND (kg)		
		e	a	b	Plain	with Door	with Heel Rest
92°	75	3.5	78	140	2.4	2.8	2.7
	100	4.0	91	157	3.8	4.4	4.3
	150	5.0	117	186	7.9	8.7	8.7
	200	6.0	165	285	17.0	--	--
135°	75	3.5	47	104	2.1	2.5	2.4
	100	4.0	53	114	3.3	3.9	3.8
	150	5.0	65	129	6.5	7.3	7.3
	200	6.0	80	206	15.0	--	--

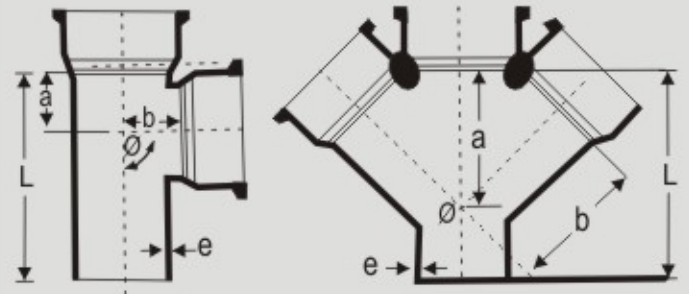


Available in left & right hand side doors

Dimensions are in mm

### EQUAL BRANCHES WITH AND WITHOUT ACCESS DOORS

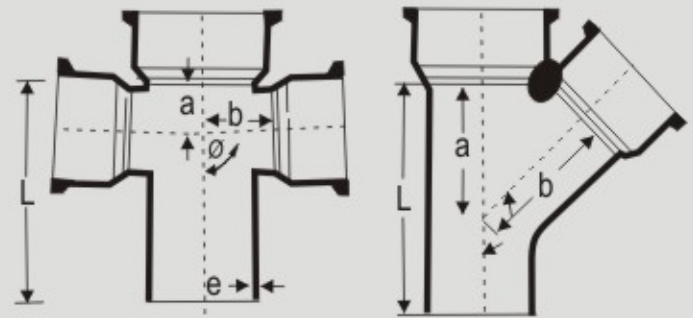
ANGLE	NOMINAL DIAMETER Ø DN	DIMENSIONS				APPROXIMATE MASS OF SINGLE BRANCH		APPROXIMATE MASS OF DOUBLE BRANCH	
		e	L	a	b	Plain (kg)	with Door (kg)	Plain (kg)	with Door (kg)
92°	75	3.5	207	52	52	3.6	4.0	4.6	5.0
	100	4.0	238	66	66	5.7	6.3	7.2	7.8
	150	5.0	294	93	93	11.4	12.2	14.3	15.1
	200	6.0	385	125	125	23.5	--	--	--
135°	75	3.5	233	119	119	4.1	4.5	5.3	5.7
	100	4.0	276	152	152	6.6	7.2	8.6	9.4
	150	5.0	355	216	216	14.0	14.8	17.2	18.0
	200	6.0	460	295	300	35.0	--	--	--



Dimensions are in mm

### UNEQUAL BRANCHES WITH AND WITHOUT ACCESS DOORS

ANGLE	NOMINAL DIAMETER		DIMENSIONS				APPROXIMATE MASS OF SINGLE BRANCH		APPROXIMATE MASS OF DOUBLE BRANCH	
	Ø	Body DN / Branch Pipe DN	e	L	a	b	Plain (kg)	with Door (kg)	Plain (kg)	with Door (kg)
92°	75	50	3.5	181	39	51	3.1	3.5	3.8	4.2
	100	50	3.5	190	40	63	4.2	4.8	4.8	5.4
	100	75	4.0	211	52	65	4.9	5.5	6.0	6.6
	150	100	5.0	242	67	92	9.1	9.9	10.5	11.3
	200	100	6.0	325	100	160	17.5	--	--	--
	200	150	6.0	325	125	175	18.0	--	--	--
135°	75	50	3.5	197	101	106	3.3	3.7	4.0	4.4
	100	50	3.5	210	115	125	4.3	4.9	5.2	5.8
	100	75	4.0	239	133	139	5.5	6.1	6.4	7.0
	150	100	5.0	283	179	190	10.6	11.4	12.3	13.1
	200	75	6.0	355	200	210	17.0	--	--	--
	200	100	6.0	355	230	250	20.9	--	--	--
200	150	6.0	395	275	295	26.0	--	--	--	



Dimensions are in mm



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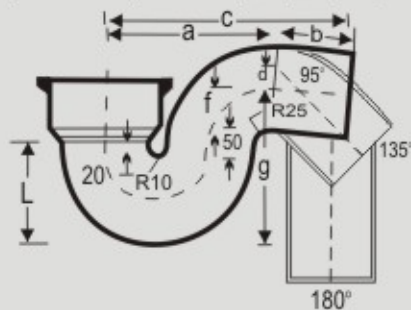
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**P-TRAP**

ANGLE	NOMINAL DIAMETER DN	DIMENSIONS							Approximate Mass (Kg)	
		e	a	b	c	d	L	f		g
95°	75	3.5	170	105	275	-	110	55	165	4.3
	100	4.0	214	116	330	-	135	71	206	7.0
	150	5.0	285	140	425	-	186	98	284	10.5
135°	75	3.5	170	149	277	25	110	55	165	4.3
	100	4.0	214	175	338	32	135	71	206	7.0
	150	5.0	285	235	455	39	186	98	284	10.5
180°	75	3.5	170	159	231	-	110	55	165	4.3
	100	4.0	214	184	291	-	135	71	205	7.0
	150	5.0	285	239	387	-	186	98	284	10.5

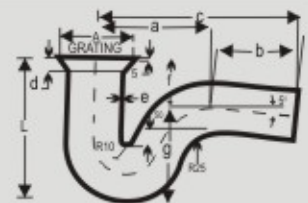
Dimensions are in mm



**FLOOR TRAP**

NOMINAL DIAMETER DN	DIMENSIONS									Approximate Mass (Kg)
	A	a	b	c	d	e	f	g	L	
75	100	170	105	275	40	3.5	60	165	225	4.8
100	200	214	116	330	60	4.0	90	206	296	7.5

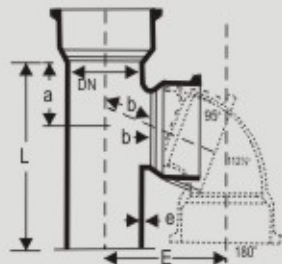
Dimensions are in mm



**EQUAL & UNEQUAL BRANCHES SOCKET TYPE**

ANGLE	NOMINAL DIAMETER		DIMENSIONS					Approximate Mass (Kg)
	Body DN	Branch DN	a	b	E	L	e	
95°	100	100	98	66	-	276	4.0	6.0
	100	50	70	63	-	210	4.0	4.4
112°	100	100	79	91	-	276	4.0	6.1
	100	50	54	85	-	210	4.0	4.5
180°	100	100	98	102	167	276	4.0	6.5
	100	50	70	90	140	210	4.0	5.0

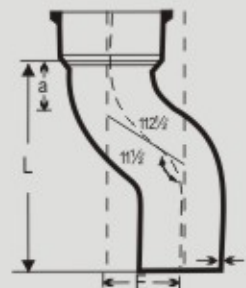
Dimensions are in mm



**OFFSET**

OFFSET E	NOMINAL DIAMETER DN	DIMENSIONS			Approximate Mass (Kg)
		a	e	L	
75	75	45	3.5	225	2.7
	100	55	4.0	250	4.3
	150	75	5.0	275	8.4
115	75	45	3.5	225	2.9
	100	55	4.0	250	4.5
	150	75	5.0	290	8.8
150	75	45	3.5	225	3.1
	100	55	4.0	250	4.8
	150	75	5.0	300	9.5

Dimensions are in mm



**COWEL**

NOMINAL DIAMETER DN	DIMENSIONS					Approximate Mass (Kg)
	e	m	d	L	h	
75	3.5	95	82	175	115	1.5
100	4.0	110	109	200	145	2.7
150	5.0	110	161	210	195	5.8

Dimensions are in mm



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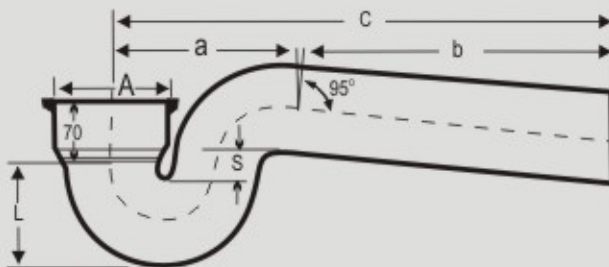
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**LONG ARM P-TRAP**

NOMINAL DIAMETER DN	DIMENSIONS						Approximate Mass (Kg)
	A	a	b	c	L	s	
100	128	189	440	629	140	50	11.0

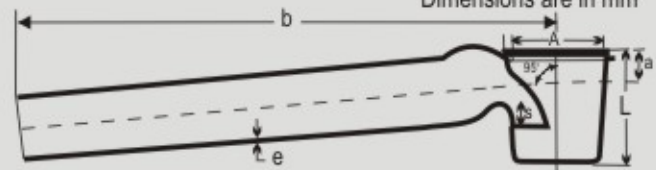
Dimensions are in mm



**LONG ARM NIHANI TRAP**

SIZE	DIMENSIONS						Approximate Mass (Kg)
	A	a	b	e	L	s	
100 x 75 x 500	121	55	645	5	135	25	9.0
100 x 75 x 300	121	60	455	5	130	25	6.0

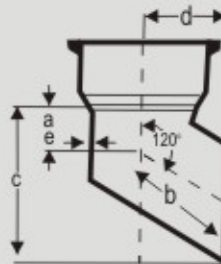
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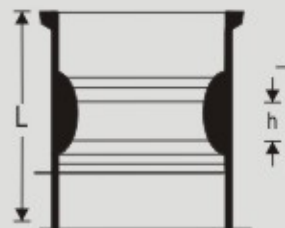
**SHOE BEND**

NOMINAL DIAMETER DN	DIMENSIONS					Approximate Mass (Kg)
	a	b	c	d	e	
75	38	75	117	64	3.5	2.0
100	52	92	161	80	4.0	2.8
150	55	23	200	105	5.0	4.5

Dimensions are in mm



**COLLARS**



NOMINAL DIAMETER DN	DIMENSION		Approximate Mass (Kg)
	L	h	
75	150	20	2.3
100	160	20	3.4
150	170	20	6.4
200	195	25	11.5

Dimensions are in mm

**SINGHAL IRON FOUNDRY PVT. LTD**

(Founders, Engineers & Approved Govt. Order Suppliers)

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