



IS: 15905-2011

AS PER  
ISO 6594  
SPECIFICATIONS



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



*59 Years Of Excellence*

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



IS: 15905-2011



## TECHNICAL SPECIFICATION & PRODUCT CHARACTERISTICS:

### 1. SPECIFICATIONS:

#### a) Pipes & Fittings:

- As per ISO 6594 • As per DIN 19522 • As per IS 15905-2011

#### b) Stainless Steel Coupling with EPDM Rubber:

- DIN 19543

### 2. USES :

SKF Cast Iron Hubless Pipes & Fittings are used in Gravity Drainage System for following purposes :

- SOIL • WASTE • VENTILATION • RAIN WATER

### 3. RANGE & NOMINAL SIZES :

Hubless Pipes & Fittings are manufactured and available in complete range as per product catalogue and in following nominal sizes, (pipe length : 3000 mm max.) :

- 50mm • 75mm • 100mm • 150mm • 200mm

### 4. MATERIAL :

Cast Iron used for manufacturing Hubless Pipes & Fittings conforms to: IS 210, ISO 185. Grade FG 150 with chemical properties C-3.5 to 3.75%, Si-1.8 to 2.3%, CE-4.3

### 5. MECHANICAL PROPERTIES:

1.	Specific Wt.	7.15 kg./dm <sup>3</sup>
2.	Tensile Strength.	150 N/mm <sup>2</sup>
3.	Hardness	230 BHN max.
4.	Co-efficient of Expansion	11x10 <sup>-6</sup> /deg.C
5.	Crushing Strength	600 N/mm <sup>2</sup>
6.	Modulus of Elasticity	10x10 <sup>3</sup> to 12x10 <sup>5</sup> N/mm <sup>2</sup>
7.	Temperature Resistance	400 deg. C (without significant reduction in mechanical properties)

### 6. HYDROSTATIC TEST PRESSURE:

It should bear water pressure at 0.7 Kg/ Cm<sup>2</sup> for at least 15 Sec. time

### 7. COATING

Inside & Outside epoxy paint for no brittle at 0°C and not flow up to 65°C

### 8. Hammer Test

For clear ringing soundness of casting

### 8. TOLERANCE :

#### 1) External Diameters :

Nominal Size	External Diameter	Tolerance On
DN (in mm)	DE (in mm)	DE (in mm)
75	83	+2/ -1
100	110	+2/ -1
150	160	+2/ -1
200	210	+2.5/ -2.5


#### 2) Thickness :

Nominal Size	Thickness			
	Pipe		Fittings	
DN (in mm)	Nom.	Min.	Nom.	Min.
75	3.5	3.0	4.2	3.0
100	3.5	3.0	4.2	3.0
150	4.0	3.5	5.3	3.5
200	5.0	4.0	6.0	4.0

• All Dimensions are in mm.

#### 3) Lengths :

a) Pipe : ±20mm b) Fittings : ± 5mm

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

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

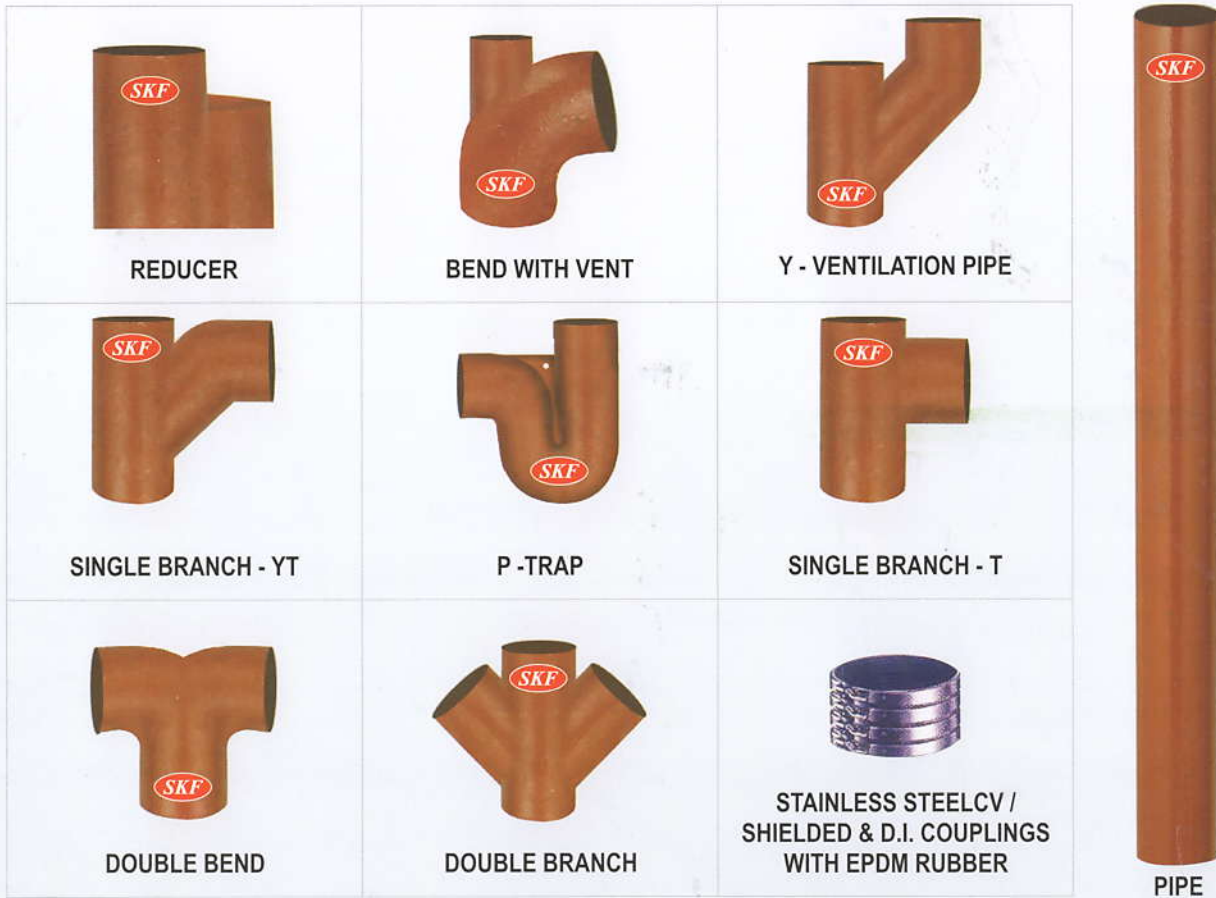


IS: 15905-2011

AS PER  
ISO 6594  
SPECIFICATIONS



## HUBLESS PRODUCT RANGE:



## INSTALLATION PROCEDURE:



1. Push Sealing on end of pipe



2. Reverse Upper half of sealing



3. Next put pipe or fitting on central ring and defold sealing



4. Lay collar around sealing



5. Screw both ends firmly, ensuring that both plates are parallel



CUTTING MACHINE

### CUTTING OF HUBLESS PIPES:

For cutting Hubless Cast Iron Pipes, Cutting Machine is recommended (as shown in figure below). which saves time and cuts the pipe perpendicularly with straight edges.

#### Procedure:

- Mark the pipe surface from where the pipe has to be cut.
- fix the pipe in machine vice.
- Now move the cutting wheel downwards till the pipe is cut



IS: 15905-2011



## ADVANTAGES OF HUBLESS CAST IRON PIPES & FITTINGS:

- 1. Durability & Performance** : Cast Iron's durability & performance exceeds expected life of the building.
- 2. Non Combustible** : Does not contribute to the spreading of flames in case of fire.
- 3. Resistance to Abrasion** : High resistance to Sand, Gravel, Glass particles, Garbage, Disposal residue, Dish water discharge and Debris being carried, both at low and high velocity.
- 4. Withstand Temperature Extreme** : Cast Iron has an ability to withstand temperature extreme in hot and cold conditions.
- 5. Low Co-efficient of Expansion & Contraction** : Less expansion or contraction in any environment, so no scope for leakages and smell.
- 6. Strength & Rigidity** : Cast Iron provides high beam strength due to its excellent engineering properties.
- 7. Resistance to Noise Transmission** : High noise dampening properties, keeps noise level low when the System is in use.
- 8. Resistance to Vibrations & Shocks** : It has an excellent properties of resisting vibrations and absorbing shocks.
- 9. Compact System** : HUBLESS Couplings provide more compact arrangements. The great advantage of this System is that, it permits joints to be made in limited access areas.
- 10. System Flexibility** : The Couplings permit sufficient flexibility under adverse conditions, also allow pipe movement, building sway movement without breakage or joint leakage. Also it resist the vibrations and absorb shocks.
- 11. Versatility** : Hasselfree System, which can be used efficiently throughout, as per the requirement in adverse conditions also.
- 12. Low Installation Cost** : Since Pipes are available in longer lengths, and Couplings are used for jointing, which results in speed and efficiency of work, hence saves the cost.
- 13. Less Wastage** : Since Pipes & Fittings are HUBLESS, every inch of Pipe can be utilised by making Coupling Joints.
- 14. Angular Deflection** : Coupling Joints allow deflection in piping upto 5 deg.
- 15. Easy to Handle** : As compared to Hub Pipes these Pipes are very easy to handle.
- 16. High Crushing Strength** : Does not break easily in case of high impact or in adverse situations.
- 17. Hasselfree Installation** : Installation of HUBLESS Cast Iron Pipes & Fittings has no added complications like Fire collars. Cladding, additional brackets, Sound insulation, Expansion joints, Thermal Limiters etc. unlike U-PVC Pipes.
- 18. Easy to maintain** : Does not require frequent and costly maintenance.
- 19. Cost Effective** : Can often be the most cost effective option when total installed cost is calculated, expected maintenance required & a full risk assessment carried out, that is the consequential cost of failure in the system.
- 20. Flexi Reorientation** : This System allows reorientation of Drainage System in future, since Couplings, Pipes & Fittings can be taken out and be reused any time.

# SINGHAL IRON FOUNDRY PVT. LTD

(Founders, Engineers & Approved Govt. Order Suppliers)

## Correspondence Address:

D-63.64, Shri Radhapuram, Govardhan Crossing, Mathura-281004 (U.P.) India

Factory: Farah, Mathura (U.P.) India

Rajat Goel : 9837036120

Vipin Goel : 9837042988

Anshul Singhal : 9897947777

Email: gmskfcipipes@gmail.com

Dt. : 01/04/2018