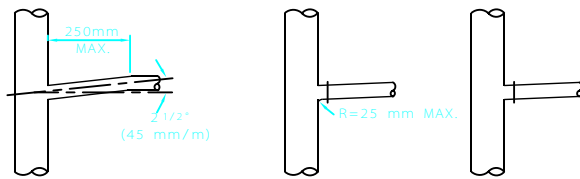
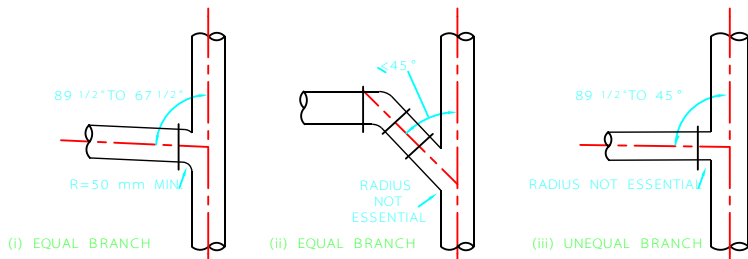


(a) FOR BRANCH DISCHARGE PIPES OF UP TO 65 mm DIAMETER (EXCEPT 32 mm. BRANCHES SERVING WASH BASINS)



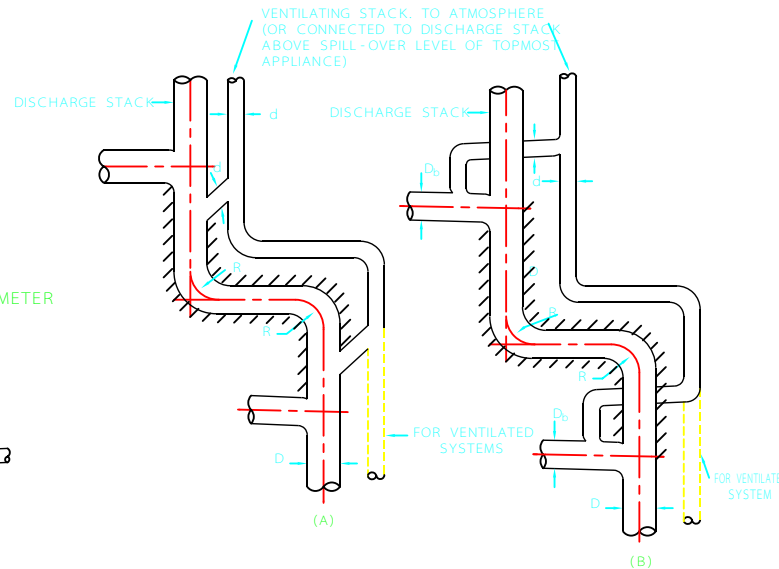
(i) USING 87 1/2° BOSS WHEN PIPE GRADIENT HAS TO BE LESS THAN 2 1/2° (45 mm/m)
 (ii) WITH SMALL RADIUS
 (iii) WITHOUT RADIUS

(a) FOR BRANCH DISCHARGE PIPES OF 32 mm. DIAMETER SERVING WASH BASINS.



(c) FOR BRANCH DISCHARGE PIPES OF 75 mm. TO 150 mm. DIAMETER CONNECTED TO STACKS OF UP TO 150 mm. DIAMETER)

BRANCH DISCHARGE PIPE CONNECTIONS TO DISCHARGE STACKS



R IS AS LARGE AS POSSIBLE (200 mm MIN.)
 $d = D/2$, OR FOR VENTILATED SYSTEMS AS REQUIRED IN TABLE 11 OF IPS - E - CE - 390 IF LARGER THAN $D/2$
 $D_b \geq 75$ mm (SEE NOTE 2 BELOW)

- NOTE 1. NO BRANCH CONNECTIONS IN SHADED AREA UNLESS VENTED.
- NOTE 2. ARRANGEMENT (b) IS ONLY POSSIBLE IF ϕ IS 75 mm OR LARGER.
- NOTE 3. NO OFFSET VENTING IS REQUIRED IN LIGHTLY LOADED SYSTEMS OF UP TO THREE STOREYS IN HEIGHT.
- NOTE 4. OFFSETS ABOVE HIGHEST BRANCH CONNECTIONS DO NOT REQUIRE VENTING.

OFFSETS IN DISCHARGE STACKS

REFERENCES:

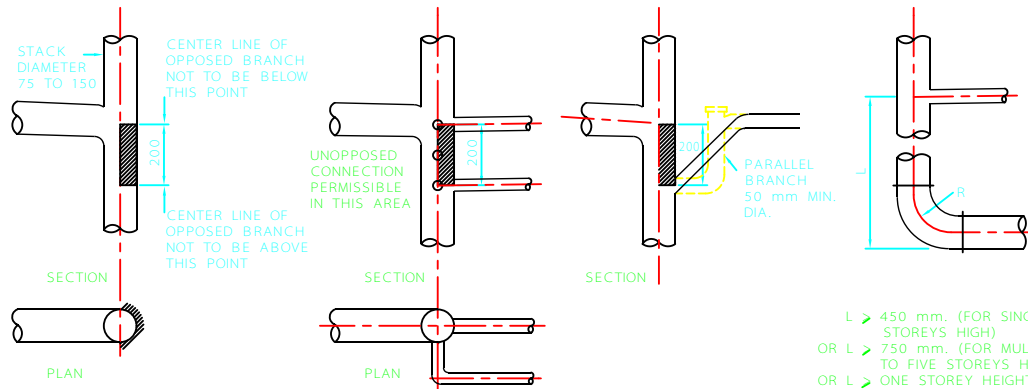
- 1) THIS DRAWING IS REFERRED TO IN CLAUSES 5.3.2.5. AND 5.3.3.3. OF IPS - E - CE - 390 PART II .
- 2) FOR VENTILATING STACKS AND VENTILATING PIPES REFER TO IPS - D - CE - 502
- 3) FOR CLASSIFICATION OF SANITARY DRAIN SYSTEMS REFER TO IPS - D - CE - 500
- 4) FOR BRANCH DISCHARGE PIPES TO RANGES OF APPLIANCES REFER TO IPS - D - CE - 503

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS 
 NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

DISCHARGE STACK AND BRANCH CONNECTIONS

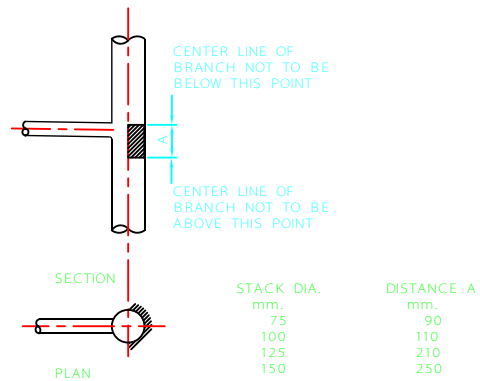
DATE	DRAWING No.	SHEET	REV.
	IPS - D - CE - 501	1 / 2	



(i) RESTRICTED CONNECTION AREA ON STACK (ii) EXAMPLES OF PERMITTED CONNECTIONS

ALL DIMENSIONS ARE IN MILLIMETERS.

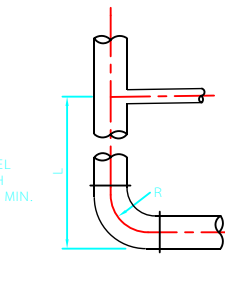
(a) OPPOSED CONNECTIONS OF LARGE AND SMALL BRANCH DISCHARGE PIPES



(i) RESTRICTED CONNECTION AREA ON STACK.

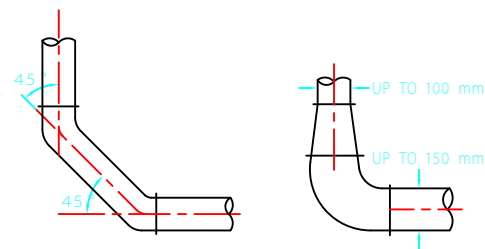
(b) OPPOSED CONNECTIONS OF SMALL DIAMETER BRANCH DISCHARGE PIPES

OPPOSED BRANCH CONNECTIONS TO STACK; PREVENTION OF CROSS FLOW



L > 450 mm. (FOR SINGLE HOUSES UP TO THREE STOREYS HIGH)
 OR L > 750 mm. (FOR MULTI-STOREY SYSTEMS UP TO FIVE STOREYS HIGH)
 OR L > ONE STOREY HEIGHT (FOR MULTI-STOREY SYSTEMS HIGHER THAN FIVE STOREYS) I.E. NO CONNECTIONS ON GROUND FLOOR LEVEL
 R IS AS LARGE AS POSSIBLE (200 mm. MIN.)

(a) BEND AND BRANCH CONNECTION



(i) TWO 45° BENDS (RECOMMENDED) (ii) ENLARGEMENT OF BEND (CAN LEAD TO OVERSIZING OF DRAIN)

(B) ALTERNATIVE BEND ARRANGEMENTS

BEND AND BRANCH CONNECTIONS AT BASE OF DISCHARGE STACK

REFERENCES:

- 1) THIS DRAWING IS REFERRED TO IN CLAUSES 5.3.2.6. AND 5.3.3.2. OF IPS - E - CE - 390 PART II
- 2) FOR VENTILATING STACKS AND VENTILATING PIPES REFER TO IPS - D - CE - 502
- 3) FOR CLASSIFICATION OF SANITARY DRAIN SYSTEMS REFER TO IPS - D - CE - 500
- 4) FOR BRANCH DISCHARGE PIPES TO RANGES OF APPLIANCES REFER TO IPS - D - CE - 503

REV	DESCRIPTION	DATE
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VENTILATING STACK AND BRANCH CONNECTIONS

DATE	DRAWING No.	SHEET	REV.
	IPS - D - CE - 501	2	2