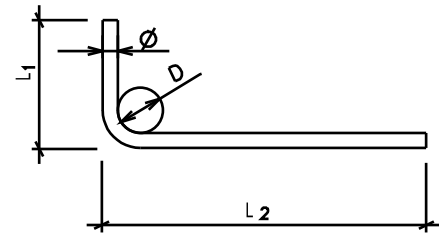


GENERAL FORMULAE

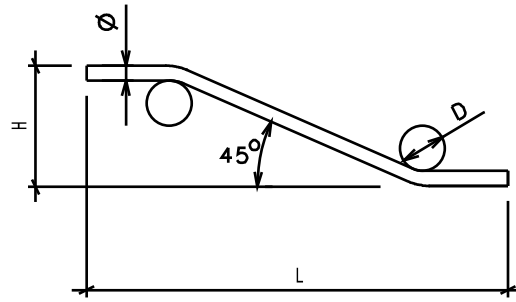
D = BENDING ROLL DIAMETER  
 Ø = BAR DIAMETER  
 L<sub>T</sub> = TOTAL (CUTTING) LENGTH



$$L_T = L_1 + L_2 - A$$

$$A = 0.2146D = 1.2146\phi$$

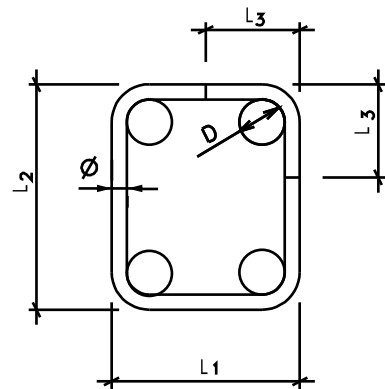
D = 5Ø → A<sub>5</sub> = 2.29Ø  
 D = 10Ø → A<sub>10</sub> = 3.36Ø



$$L_T = L + 0.4142H - B$$

$$B = 0.0430D = 0.4572\phi$$

D = 5Ø → B<sub>5</sub> = 0.67Ø  
 D = 10Ø → B<sub>10</sub> = 0.89Ø

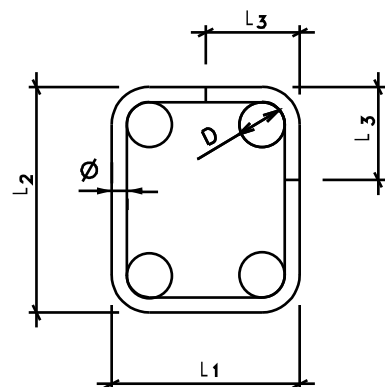


STIRRUPS (OUTSIDE DIMENSIONS)

$$L_T = 2(L_1 + L_2) + C$$

$$C = 2L_3 - 1.0730D = 6.0730\phi$$

D = 2.5Ø → C<sub>2.5</sub> = 2L<sub>3</sub> - 8.76Ø  
 D = 5Ø → C<sub>5</sub> = 2L<sub>3</sub> - 11.44Ø



STIRRUPS (INSIDE DIMENSIONS)

$$L_T = 2(L_1 + L_2) + E$$

$$E = 2L_3 - 1.0730D = 3.9270\phi$$

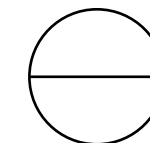
D = 2.5Ø → E<sub>2.5</sub> = 2L<sub>3</sub> + 1.24Ø  
 D = 5Ø → E<sub>5</sub> = 2L<sub>3</sub> + 1.44Ø

TABLE FOR NEN3880 BENDING RADII

Ø mm	WEIGHT kg/m <sup>1</sup>	OUTSIDE DIMENSIONS				INSIDE DIMS.			
		D=5Ø A <sub>5</sub>	D=10Ø A <sub>10</sub>	D=5Ø B <sub>5</sub>	D=10Ø B <sub>10</sub>	D=2.5Ø C <sub>2.5</sub>	D=5Ø C <sub>5</sub>	D=2.5Ø E <sub>2.5</sub>	D=5Ø E <sub>5</sub>
6	0.222	10	20	0	5	115	115	165	180
8	0.395	15	25	5	5	110	110	170	195
10	0.617	20	30	5	5	120	120	200	225
12	0.888	25	40	5	10	140	140	240	270
16	1.578	35	50	10	10	190	190	320	360
20	2.464	45	65	10	15				
25	3.853	55	80	15	20				
32	6.313	70	105	20	25				
40	9.865	90	135	25	35				

NOTES

- ALL DIMENSIONS IN mm
- BENDING ROLL DIAMETER ACC. NEN3880:  
 FeB220 D ≥ 2.5Ø  
 FeB400 AND FeB500 D ≥ 5Ø OR D ≥ 10Ø
- MINIMUM LENGTH OF HOOK:  
 L<sub>1</sub> ≥ 6Ø + 0.5D
- MINIMUM LENGTH OF HOOKS:  
 a. L<sub>3</sub> ≥ 9Ø + 0.5D AND L<sub>3</sub> ≥ Ø + 0.5D + 70  
 b. L<sub>3</sub> ≥ 8Ø + 0.5D AND L<sub>3</sub> ≥ 0.5D + 70  
 THESE HAVE BEEN INCORPORATED IN THE TABLE.
- STIRRUPS WITH INSIDE DIM'S TO BE USED ONLY WHERE REQUIRED BY CLIENT'S STANDARDS.



Iss	Date	By	COMPLETED	AKH
			Description of issue	Ch'k'd

TABLE FOR BAR BENDING  
 DEVELOPED LENGTHS BASED ON BENDING  
 RADII AS PER NEN 3880 (VB 1974/1984)

Scale	Approvals		
Design	Eng'r		
Date			

