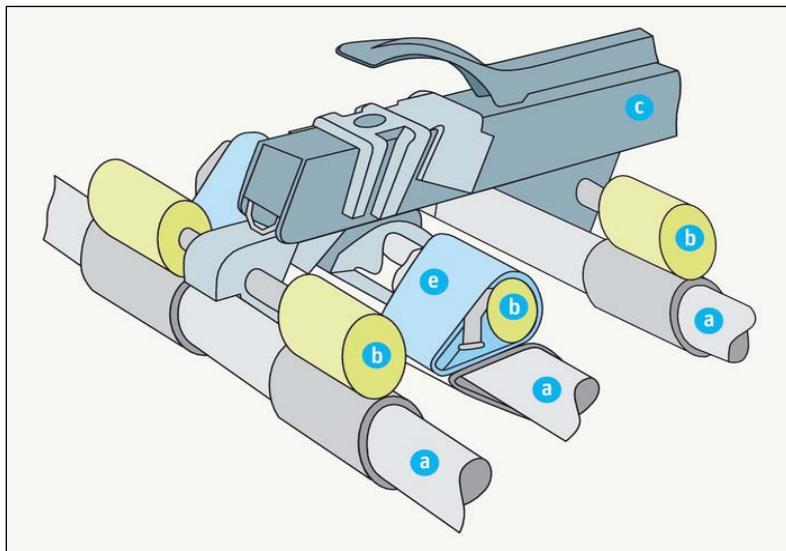
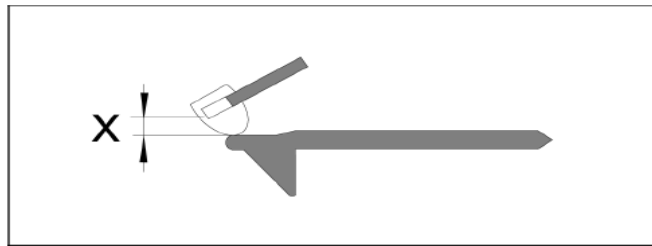


Cradle opening





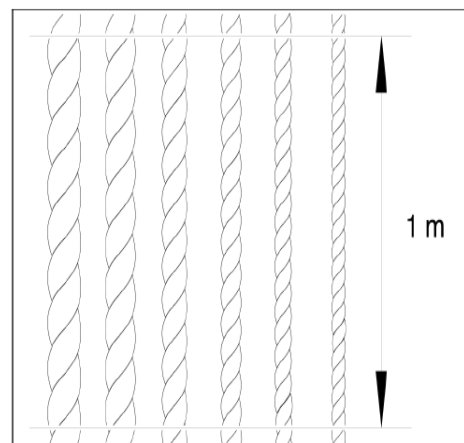
$$\alpha_m = T/m * \sqrt{\frac{1\ 000}{Tt(\text{tex})}}$$

$$\alpha_m = \frac{T/m}{\sqrt{N_m}}$$

$$\alpha_e = \frac{T/''}{\sqrt{N_e}}$$

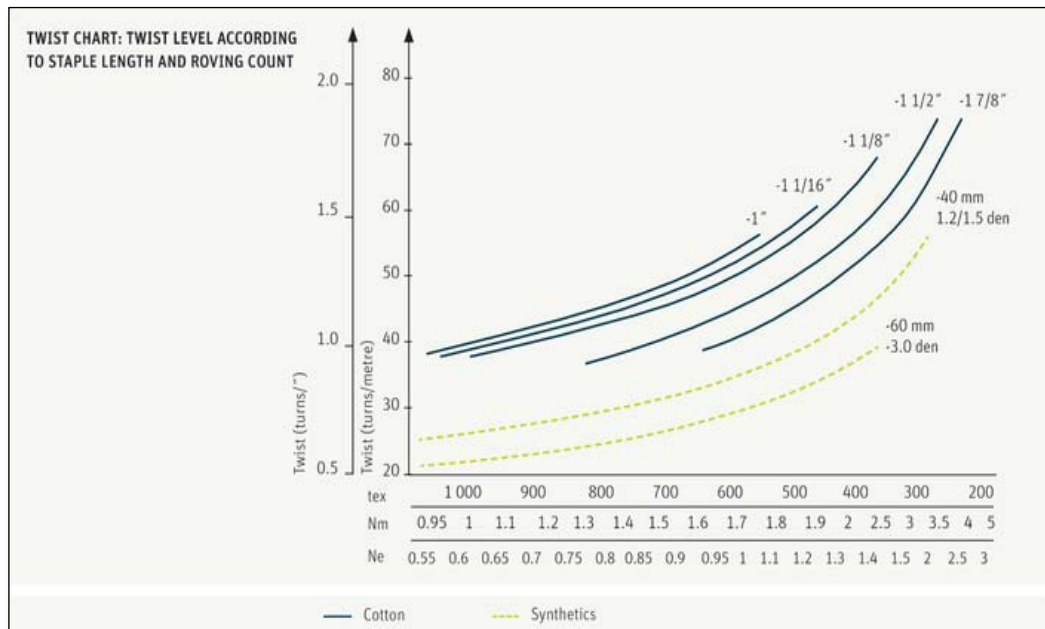
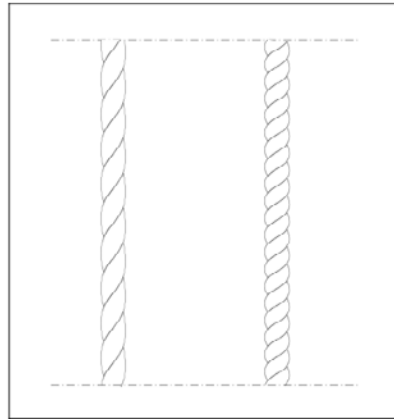
$$\alpha_e = \alpha_m * 0.03302$$

$$\alpha_{\text{tex}} = \alpha_m * 31.6$$



Calculation of the twist		
$T/m = \frac{n_F}{L}$		
n_F	Flyer speed	rpm
L	Drafting system delivery	m/min

Roving twist too high / low



Tt(tex)	Nm	Ne	Staple length						
			...1"	1 1/32... 1 1/16"	1 3/32... 1 3/8"	1 1/2"	1 7/8"	40 mm	60 mm
			a _m 39	a _m 37.5	a _m 35.5	a _m 32	a _m 30	a _m 25	a _m 22
1333	0.75	0.44	33.8	-	-	-	-	-	-
1111	0.90	0.53	37.0	35.5	-	-	-	-	-
1000	1.0	0.59	39.0	37.5	35.5	-	-	25.0	22.0
909	1.1	0.65	40.9	39.3	37.2	-	-	26.2	23.1
833	1.2	0.71	42.7	41.1	38.9	-	-	27.4	24.1
769	1.3	0.77	44.5	42.8	40.4	-	-	28.5	25.1
714	1.4	0.83	46.2	44.6	42.0	-	-	29.6	26.0
667	1.5	0.89	48.2	45.9	43.5	39.2	-	30.6	26.9
625	1.6	0.95	50.9	47.4	44.9	40.5	-	31.6	27.8
588	1.7	1.0	51.9	48.9	46.3	41.7	-	32.6	28.7
555	1.8	1.06	-	50.3	47	42.9	-	33.5	29.5
526	1.9	1.12	-	51.7	48.9	44.1	-	34.5	30.3
500	2.0	1.18	-	53.3	50.2	45.3	42.4	35.4	31.1
400	2.5	1.48	-	-	56.1	50.6	47.4	39.5	34.8
333	3.0	1.77	-	-	-	55.4	52.0	43.3	38.1
286	3.5	2.07	-	-	-	59.9	56.1	-	41.2
250	4.0	2.36	-	-	-	64.0	60.0	-	44.0
222	4.5	2.66	-	-	-	67.9	63.6	-	46.7
200	5.0	2.95	-	-	-	74.6	67.1	-	49.2
182	5.5	3.25	-	-	-	-	70.4	-	51.6
167	6.0	3.54	-	-	-	-	73.5	-	-

