

Tensioning

TENSION LEVELS

Levels I, II and III are specific in use: evaluation of the type of screen tensioning device, frame profile, printing equipment and experience level of screen-makers and printers is of the utmost importance when deciding which level will work best for your production requirements.

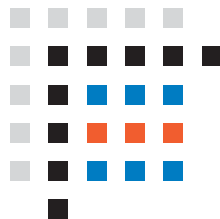
NOTE: Higher tension levels will bring the mesh closer to their ultimate tensile breaking strength, which leaves less room for manufacturing errors. The following level descriptions will provide further guidelines in choosing a correct tension level.

GUIDELINES FOR CHOOSING CORRECT TENSION LEVEL

Level I - Standard screen makers and printers using tensioning/printing equipment of lower than state-of-the-art sophistication, Level I is also used for large format frames - 50" or larger.

Level II - Advanced screen makers and printing technicians using stable frames and state-of-the-art stretching devices with proper tensioning. Level II requires caution when tensioning and minimum off-contact press settings during printing.

Level III - Expert screen makers and printing technicians using stable frames (maximum size of 55" OD), and state-of-the-art tensioning units with proper tensioning procedures. Level III tensions are set at maximum. Minimum off-contact print settings during printing are required.



SEFAR

SCREEN TENSIONING PROCEDURES

1. Start by locking the mesh into the stretching device or retensionable chase. To achieve optimum tension, it is required to adjust corners to avoid exceeding the tensile strength or yield point of mesh.

2. Tension warp and weft thread directions to one-half recommended tension level.

3. Pause and stabilize for approximately 60 seconds.

4. Increase tension in warp and weft direction approximately 2-4 N/cm. Wait approximately 60 seconds and check corners to assure over-tensioning does not occur. Repeat the 2-4 N/cm and 60 second stabilization intervals until recommended tension is achieved.

5. When utilizing a tensioning device that applies continuous force to the mesh (i.e. pneumatic clamps), allow the mesh to stabilize for up to 30 minutes. For mechanical stretching devices, allow the mesh to stabilize for 15 minutes and retension back to the recommended tension level. Stabilize the mesh for an additional 15 minutes and retension back to the manufacturer's recommended tension level.

6. The screen is now ready for further processing.

Pneumatic Stretching Clamps:

Pneumatic Clamps are highly recommended to achieve Levels II and III.

Stabilizing/Retensioning: Further stabilizing and retensioning will provide slightly higher end screen tensions. The length of stabilization and number of retensionings are governed by in-house production requirements, manufacturing processes and amount of working capital.

Consistency: Regardless of the tension level chosen for production, it must be controlled and repeated consistently as a strict manufacturing process. Consistency is the "key" to process control.

SPECIFICATIONS

Product Description	Tension Levels		
	I	II	III
20-300	21	36	56
25-260	20	35	55
25-350	30	43	64
30-140	17	24	30
30-300	25	40	60
40-200	20	34	54
40-250	25	40	60
54-140	18	28	45
60-120	20	29	35
60-140	20	30	47
70-120	18	28	45
70-140	20	35	55
76-120	19	33	53
83-70	19	25	31
83-100	18	33	40
83-120	19	35	50
92-90	16	26	33
92-100	18	28	45
103-80	19	27	45
110-80	32	42	51
110-90	18	28	45
115-70	20	27	33
115-80	21	29	48
123-55	17	22	27
123-70	27	35	43
123-80	23	32	52
131-70	28	35	44
131-80	23	32	52
137-64	26	34	42
137-70	26	34	42
156-64	30	39	48
156-70	28	36	44
175-55	24	31	38
175-64	26	34	42
175-70 TW	28	36	44
180-55	20	26	32
186-55	21	27	33
195-48	21	27	34
195-55	27	35	43
195-64 TW	33	43	53
206-48	23	30	37
230-40	19	25	31
230-48	24	33	40
230-55 TW	28	38	47
230-2/34	24	31	38
240-40	17	22	27
240-80	17	22	27
255-40	20	26	32
255-48	27	35	43
280-34	16	21	26
280-40	20	26	32
305-31	16	21	26
305-34	17	22	27
305-40	23	30	37
330-34	18	23	29
355-31	17	22	27
355-34 PW	18	23	29
355-34 TW	20	26	32
355-34 UV	18	23	29
380-27	15	19	23
380-31 UV	15	19	23
380-31	17	22	27
380-34 PW	20	26	32
380-34 TW	21	27	34
380-34 UV	20	26	32
420-27	16	21	26
420-31	19	25	31
420-31 UV	19	25	31
420-34 TW	23	30	35
420-34 UV	23	30	35
460-27	16	21	26
460-31	21	27	34
460-31 UV	21	27	34
480-31	21	28	35