		Notes	Effect
Plotting	1	Cloths with large elasticity (such as Lycra®, Spundex®) cannot be used. Knit materials with vertical elasticity cannot be used. Use stretch materials with liner paper.	• For elastic cloths, the feed amount cannot remain constant because the following processing has been repeated for such cloths. Expanded by the tensile roller and slipped when expanded to some extent.
	2	For cloths which are shrinkable by wetting, reduce shrinkage with pretreatment.	• With cloths which are shrinkable by wetting, the plotting pattern becomes stepped at both ends of the plotting surface. (The plotted band shrinks, making dislocation from the position of the next band edge.) With fine plotting patterns, the closer to both ends, the fainter becomes the plot result.
	3	When using a new cloth (including pretreatment), make entire plotting first. Make sure that the plotting pattern becomes stepped and that the boundary between the plotted portion and non-plotted portion is waved.	• If the plotting pattern becomes stepped or if the boundary between the plotted portion and non-plotted portion is waved, the cloth is recognized as shrinkable by wetting.
	4	If portions with a largely different plotting rate are not complicated but adjoining in block form, white and black streaks may appear. (FEED CORRECTION cannot be adjusted.)	• If a cloth with ink penetration is used without the platen board, the portions with a high plotting rate will be lowered by the ink weight. • For cloths which are shrinkable by wetting, the portion with a higher plotting rate shrinks more.
	5	The feed amount correction value is 0.8 µm (4-pass plotting) to 0.4 µm (8-pass plotting) per count. Example : If white 20 µm streaks appear in 8-pass plotting, enter -50 as a correction value (as a standard).	• The case at left applies to film media. In case of cloths which can expand and shrink, it is finally necessary to set the value on a trial and error basis.
	6	Do not feed the cloth backward because doing so may stain it or cause wrinkles. If backward feed is performed as required, reset the cloth.	• The tensile roller rotates slightly faster than the driving roller. Forward feed makes the cloth tense but backward feed cause slacks between the two rollers, which may cause failures.
Others	1	Vertical streaks may appear in the portions where the pinch roller is absent (arm between pinch rollers). Make infirm pretreated cloths firm to some extent through pretreatment.	• Since the cloth becomes tense at the tensile roller, vertical wrinkles may occur at the portions where the pinch roller is absent. Infirmer pretreated cloths are more likely to present wrinkles.
	2	Do not perform bleaching (oil removing) suddenly with high temperature. Instead, increase the temperature gradually.	• Doing so may cause wrinkles or slacks after pretreatment. • Doing so may cause expansion or shrinkage of the cloth at the time of plotting.
	3	Do not use starchy materials as a glue material for pretreatment. Use alginic acid.	• Doing so may cause expansion and wrinkles of the cloth.
	4	Perform width setup after pretreatment using the required minimum tension. Adjust the width as close to the reference value as possible.	• Width setup with an excessive tension may cause remarkable shrinkage of the cloth at the time of plotting. • If the width setup tension is too low, slacks and wrinkles may remain at the center when the cloth is finished.
	5	Perform width setup during pretreatment so that the cloth be caught in fine pitches.(Pin stenter etc.)	• If width setup is performed with the cloth caught at intervals, the width does not become constant. In this case, skews or wrinkles may appear at the time of plotting.

D200662-1.00-25012002

Mimaki

Textile Jet

Tx2-1600

COLOR INKJET PLOTTER

Notes of Using Cloths

The following describes how to handle the cloth when using the Tx2-1600. To obtain the plot result as you expect, use the plotter according to the type and characteristic of the cloth. Please read this manual thoroughly to understand its contents.

1.Unacceptable Cloths

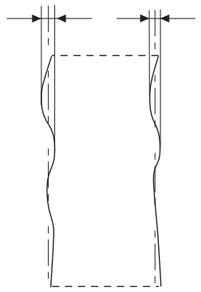
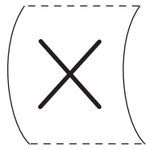
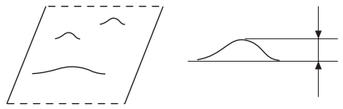
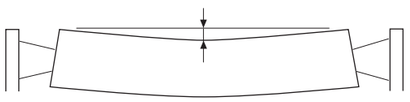
⚠ CAUTION **The following cloths cannnot be used.**

1) Materials which are elastic warpwise and weftwise (stretch materials such as Lycra®, Spundex®.)
2) Knit materials which are elastic warpwise.
3) Cloths with extremely coarse texture (Chiffon®etc. with less than 6 knit blades)
4) Cloths whose transporting surface (opposite side of the plotting surface) is easy to catch on.
   * Before using a cloth with a coarse transporting surface, make plotting using arbitrary test data to check the condition.

MIMAKI ENGINEERING CO., LTD
http: //www.mimaki.co.jp/
E-mail: traiding@mimaki.co.jp

D200662

2.Cloth Conditions after Pretreatment

No.	Item	Conditions	Remarks
1	Expand and contract caused by wetting	0.4 mm or less /Width:1600 mm, 720 dpi, Plotting rate 150 %	
2	Width variation	± 5 mm or less at the edge of either surface.	
3	Warp when spread	Warp to either direction is not acceptable.	
4	Height of wrinkles (slacks) when spread on a flat surface	2 mm or less	
5	Roll edge displacement	± 20 mm, ± 2 mm for piece goods	
6	Hardness	With a JIS L1096 45-degree cantilever 40 mm to 120 mm	
7	Roll inside diameter	Ø 31 mm to 35 mm, Ø 46.8 mm to 50.8 mm Ø 72.2 mm to 76.2 mm	3- stage mold goods
8	Paper tube	When setting, the roll curve shall be 8 mm or less (with a paper tube thickness of 5 mm or more).	
9	Paper tube protrusion from cloth edge.	20 mm ±10 mm	
10	Securing to paper tube	Adhesive tape at 5 points of weak bonding.	
11	Roll outside diameter	Ø180 mm or less	
12	Roll weight	15 kg or less	
13	Plotting surface	No care	
14	Rolling wrinkles	Not acceptable	

3.Handling Precautions

		Notes	Effect
Setting the media	1	When setting a cloth, once pull the cloth out toward the front side, then rewind it by several hundred millimeters by holding the roll holder or paper tube.	• Straightens the cloth inclined by pulling it obliquely and makes uneven tension at both ends and the center even.
	2	When using the following cloths, remove the pinch rollers. • Cloths whose both ends are longer than the center, cloths hardened by gumming, thickened cloths, folded cloths, etc.	• Prevents slack forming at the rear side of the pinch roller.
	3	Start plotting from the position where the top of the cloth reaches the take-up device, or set the cloth to the take-up paper tube before starting plotting. Band streaks appear diffrently between the plot result at the position where the top of the cloth exceeds the tensile roller and the plot result at the position where it reaches the take-up device.	• Makes the tensile condition of the plotting surface of the cloth almost constant. (The tension of the plotting surface of the cloth is determined by the tension of the tensile roller and the weight of the lowering portion.) • If you pick up the lowering portion of the cloth during plotting, it is immediately streaked on the plotting line.
	4	For cloths without ink penetration, use the platen board. The gap becomes relatively large in the portions where the plotting surface lowers and black streaks may appear in the portions where the plotting surface does not lower.	• Prevents the cloth from lowering because of its weight (and ink weight). • If you adjust [MEDIA COMP.] to the portions where the cloth is not lower than the plotting surface, black streaks may appear in the portions where the plotting surface lowers. • If you adjust [MEDIA COMP.] to the portions where the cloth is lower than the plotting surface, while streaks may appear in the portions where the plotting surface does not lower.
	5	Before setting a cloth with a small width, rewind (or extend) it several times for both internal and external rolls.	• Allows the cloth to be set securely. In particular, cloths with a small width may present large skews because the cloth surface is strained by the pretreatment glue.
	6	Secure the cloth and take-up paper tube at three of more points using adhesive tape, and give a tension to the cloth so that there are no slacks on the plotting surface.	• If the tension of the cloth is too low, slacks on the plotting surface may affect plotting. Slacks decrease little by little as the several hundred millimeters are used. • If the tension of the cloth is too high, vertical streaks may appear of plotting is made with the texture pattern distorted.
Take-up method	1	There are two take-up methods: tension method (ON) and slack method (Interval). Use these methods according to the cloth characteristic. (Refer to section 2,3 below, “Tx2-1600 Operation manual”.)	• With the tension method, when the winding diameter becomes large, the take-up torque is lost because of the load of the roll, decreasing the tensile force applied to the cloth. If the tension decreases to a certain level, band streaks may appear.
	2	The tension method can be used in the following case. • When a roll with 1150 mm and a weight of 5 kg or less (cloth which presents little stretch when a tension is applied) is used with a small take-up torque. Adjustment of the take-up torque is necessary according to the type and width of the cloth.	• If the cloth is used with relatively large take-up torque, vertical streaks may appear, making it difficult to obtain good plot results.
	3	The slack method can be used in the following case. • When the cloth is firm, presenting no winding displacement and constant winding force at both ends and the center.	• If the condition at left is not satisfied, uneven slacks may appear at both ends. Winding displacement occurs at both ends and wrinkles may affect plotting. • If the interval method is used for cloths not satisfying the condition at left, the whole roll may not be rewound. It is effective to use a light waste paper tube, cut to a suitable length, as a tension bar.