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Technical bulletin

Placing registration stickers on the Magnus VLF load table

Background

Registration stickers must be placed on the Magnus VLF load table as a guide for manual plate loading. The location of the stickers is determined by the plate size and the location of the registration pins. The Magnus VLF can have either a 4-pin or a 6-pin registration system. This bulletin is a guide to determine the location of the stickers.

Placing Registration Stickers

For Magnus VLF's with a Multi-Cassette Unit (MCU), you can easily determine the correct subscan position of the plates by using the actual plates. To do this:

1. Use the autoloader to load a plate on to the load table and stop the load process as soon as the fetcher releases the plate onto the load table—the plate is now in the correct position for loading.
2. Carefully pull the load table out with the plate, and add a sticker to the table showing where the edge of the plate should be.
3. Write on the sticker what plate size it marks.
4. Repeat this procedure for all available plate sizes.

If the Magnus VLF does not have a MCU, or if some plate sizes are not available, the plate position must be measured manually. Before starting, make a list of all plate sizes that will be used on the machine. Include plates that will normally be loaded automatically so that manual loading can be used as a backup procedure. Also determine if the machine has 4 or 6 registration pins—on a 6-pin system, dual plate loading is supported in either landscape or portrait, depending on the plate size. See

Table 1.

Table 1: Plate size information for 6 pin registration and dual plate loading

Drum Size	Portrait/Landscape	Subscan size range
4570/5570	Portrait	406 – 907 mm (16 – 35.7 in.)
4570/5570	Landscape	490 – 817 mm (19.3 – 32.16 in.)
5183/6383	Portrait	406 – 1032 mm (16 – 40.63 in.)
5183/6383	landscape	490 – 817 mm (19.3 – 32.16 in.)

Note: Special cases for the mainscan plate length are shown below.

- When plate length around the drum exceeds 1524 mm (60 in.), the plate must run as a single plate (6-pin MCU machines only).
- The minimum mainscan plate length for a Magnus VLF MCU or CL machine is 483 mm (19 in.)
- The minimum mainscan plate length for a manual Magnus VLF is 394 mm (15.5 in.)

4-pin registration systems

Only single landscape plates can be loaded on a drum with 4 registration pins. All plates are centered on the pins. Table 2 lists the plate sizes and the corresponding registration pins.

Table 2: Plate sizes and pins on a 4-pin registration system

Drum size	Plate size range (subscan)	Registration pins	Offset from table center
4570/5570	394 – 610 mm (15.5 – 24 in.)	2 - 3	0
4570/5570	611 – 830 mm (24 – 32.67 in.)	1 - 3	94.5 mm (3.72 in.)
4570/5570	831 – 1778 mm (32.7 – 70 in.)	1 - 4	0
5183/6383	394 – 610 mm (15.5 – 24 in.)	2- 3	0
5183/6383	611 – 830 mm (24 – 32.67 in.)	1 - 3	94.5 mm (3.72 in.)
5183/6383	831 – 2083 mm (32. 7 – 82 in.)	1 - 4	0

Sticker placement

A sticker is placed so that the home side (left) of the plate is referenced against the sticker. To do that:

1. Locate the center of the pullout load table and mark it.
2. Check the subscan size of the plate and determine which registration pins will be used. If the plate uses pins 1-4 or 2-3, then it will be centered on the load table. The sticker for these plates must be placed half the plate width away from the center of the table.
3. If the plate uses pins 1-3, then it will be offset by 94.5 mm (3.72 in.) to the left from the center of the table.
   For example, if the plate is 800 mm (31.5 in.) wide, the sticker must be placed at 494.5 mm (19.47 in.) from the center of the load table (800/2 + 94.5).

6-pin registration devices

Dual plate loading is available with 6 registration-pin systems. Table 3 lists various plate sizes and which registration pins will be used for each size. The last column shows the offset from the table center for that plate size. The offset for landscape loading plates is measured from the center of the load table to the center of the plate. The offset for portrait loading plates is measured from the center of one of the registration pins to the left edge of the plate. Registration pins 3 & 4 are 20.8 mm (0.8 in.) wide and the rest of the pins are 12.2 mm (0.5 in.) wide. Table 3 shows which pin to measure from.

In cases where only 1 plate is loaded when 2 plates could be loaded, the machine will always use the leftmost registration pins for that size. For example, if a job for a single 600 mm (23.62 in.) wide plate was loaded, the plate would load on pins 2-3, or toward the home end of the drum.

Table 3: Plate sizes and pins on a 6-pin registration system

Drum size	Landscape or Portrait	Dual or single plate	Plate size range (subscan)	Registration pins	Plate load offset
4570/5570	L	Dual	406 – 610 mm 16 – 24 in.	2-3, 4-5	Center of plate is 488.5 mm (19.2 in.) from center of table for both sides
4570/5570	L	Dual	611 – 864 mm 24.1 – 34 in.	1-3, 4-6	Center of plate is 600.5 mm (23.6 in.) from center of drum for both sides
4570/5570	L	Single	865 – 907 mm 34.1 – 35.7 in.	1-3	Center of plate is 600.5 mm (23.6 in.) from center of table
4570/5570	L	Single	908 – 1778 mm 35.7 – 70 in.	3-4	0 mm - The plate is centered on the table.
4570/5570	P	Dual	490 – 621 mm 19.3 – 24.4 in.	2-3, 4-5	Left edge of plate is 137 mm (5.4 in.) to the left of pin 2 (4)
4570/5570	P	Dual	622 – 670 mm 24.5 – 26.4 in.	2-3, 4-6	Left edge of plate is 113 mm (4.45 in.) to the left of pin 2 (4)
4570/5570	P	Dual	671 – 817 mm	1-3, 4-6	Left edge of plate is 113 mm (4.45 in.)

Drum size	Landscape or Portrait	Dual or single plate	Plate size range (subscan)	Registration pins	Plate load offset
			26.4 – 32.2 in.		to the left of pin 2 (4)
4570/5570	P	Single	818 – 1200 mm 32.2 – 47.2 in.	3-4	Left edge of plate is 65 mm (2.56 in.) to the left of pin 3
5183/6383	L	Dual	406 – 610 mm 16 – 24 in.	2-3, 4-5	Center of plate is 488.5 mm (19.2 in.) from center of drum for both sides
5183/6383	L	Dual	611 – 907 mm 24.1 – 35.7 in.	1-3, 4-6	Center of plate is 600.5 mm (23.6 in.) from center of drum for both sides
5183/6383	L	Dual	908 – 1032 mm 35.7 – 40.6 in.	1-3, 4-6	Left edge of the LEFT plate is 201.6 mm to the left of pin 1. Left edge of the RIGHT plate is: (PlateWidth(mm) – 705.6) to the left of pin 4 (see note below)
5183/6383	L	Single	908 – 2108 mm 35.7 – 83 in.	3-4	0 mm – the plate is centered on the table
5183/6383	P	Dual	490 – 621 mm 19.3 – 24.4 in.	2-3, 4-5	Left edge of plate is 137 mm (5.4 in.) to the left of pin 2 (4)
5183/6383	P	Dual	622 – 670 mm 24.5 – 26.4 in.	2-3, 4-6	Left edge of plate is 113 mm (4.45 in.) to the left of pin 2 (4)
5183/6383	P	Dual	671 – 817 mm 26.4 – 32.2 in.	1-3, 4-6	Left edge of plate is 113 mm (4.45 in.) to the left of pin 2 (4)
5183/6383	P	Single	818 – 1200 mm 32.2 – 47.2 in.	3-4	Left edge of plate is 65 mm (2.56 in.) to the left of pin 3

Note: Landscape plates that have a subscan size in the range of 908 to 1032 mm will have a different method of determining the offset. This plate size is near the maximum for dual plate loading. The left plate will always be loaded so that the left edge of the plate is 201.6 mm (7.94 in.) to the left of registration pin 1. The position of the plate on the right-hand side needs to be calculated as follows:

(plate width in mm) – 705.6 = x

'x' is the distance from the left edge of the plate to registration pin 4. For example, if the plate is 1030 mm (40.55 in.) wide, 1030 – 705.6 = x = 324.4 mm. The left edge of this plate should be 324.4 mm (13.77 in.) to the left of registration pin 4.

Sticker placement

A sticker is placed so that the Home side (left) of the plate is referenced against the sticker. To do that:

1. Determine all of the plate sizes that will be loaded on the machine.
2. Using Table 3, calculate the position of the plate edge where the sticker should go. Measurements are made from the center of the number labels on the pullout load table that indicate the drum registration pin locations.
3. Place the stickers on the pullout table and write the plate name on the sticker.

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