MANUFACTURER'S PRODUCT OFFERINGS

This section provides a history of CTP product development by the major manufacturers. It will hopefully prove useful to buyers evaluating platesetters available on the used market. In particular, it should help buyers avoid confusion among the many similar models on the market. It is not unusual for a manufacturer to make changes to the technology within a given CTP model or product line without substantially altering its name. The opposite also occurs: manufacturers change the name of a model but they make little or no change to the engineering of the machine. Also adding to the confusion are OEM agreements that lead to the identical machine bearing different names, depending upon the manufacturer who has put their label on it.

This section also provides the chronological date of introduction, maximum and minimum plate sizes in inches, and laser information for each machine in the manufacturers' product lines. For more detailed information on the laser technology, please refer to the "Laser Design" section, beginning on page 10. For detailed information on the throughput of the models described in this section, please refer to "Measures of Platesetter Productivity", starting on page 33.

CREO

(the Grandaddy of all who have survived)

Trendsetters

The original Creo 3244 was their Platesetter 3244, the first of which shipped to RR Donnelley in April 1994. For all practical purposes this model is extinct, but does appear from time to time. Be cautious if you are offered a Platesetter 3244, without the Trendsetter designation. The Platesetter 3244 used a 532 nm YAG green laser, which is unusual among external drum devices. The use of the 532 nm YAG laser can probably be explained by the lack of a commercially viable 830 nm laser diode and corresponding plate at the time this equipment was being developed.

Creo's Trendsetter (TS) with 830 nm thermal laser was introduced at Graph Expo in October of 1995, and production models were first shipped in the Spring of 1996. The first TS produced was the 8-up TS3244 model, which is capable of imaging plates up to 32 x 44". The 4-up TS 3230, capable of imaging plates up to 32 x 30", was not introduced until September of 1998, with production models appearing in January of 1999.

Since the introduction of the TS 3244, there have been three basic engineering versions of this machine. The original design is identified as the TS 3, followed by the TS 3/8 and then the TS 8. When the Trendsetter was re-engineered in June of 1999, it was identified as TS 3/8 for engineering purposes only. The TS 3/8 is actually a transitional model that included changes incorporated in the newly introduced TS 3230 , a.k.a. the TS 4. The changes made to the TS 3 to create the TS 3/8 related to mechanical components such as the encoder and pneumatics. The TS 8 design followed in June of 2000, representing a major redesign with new skins that changed the external appearance of the machine, as well as relocation internally of numerous components, such as the power supply and filter. Most significantly, Creo improved the laser cooling mechanism in the TS 8. When the 40 W laser head was introduced, it required improved cooling over the 20 W head. Initially, Creo improvised an external fluid cooling system for the 40 W head to address this issue. With the TS 8, Creo made this fluid cooling system internal to the machine. Still, even with these substantial changes, there remained no change of the model name.

Creo's marketing department described the Trendsetter as "semi-automatic". This is a misnomer. In Creo's sense of the word, semi-automatic can be applied to any platesetter ever brought to market. The term semi-automatic has had varying meanings throughout the evolution of CTP technology, but Creo's use of the word is entirely incorrect. Semi-automatic can mean that plates are manually loaded, but are automatically unloaded to an online processor. It can also mean that the machine has separate plate load and unload slots, and the operator could place the next plate in the plate load slot once the previous plate had been moved onto the drum, so it could be drawn into the platesetter as soon as the previous plate was exposed and ejected. Neither case is true with the Trendsetter. The Trendsetter has just one slot for loading and unloading plates. The operator must load the plate into the plate slot, and after it has

been imaged, remove it from the same slot. Clearly, unless fitted with the Autoloader option, Trendsetters are properly described as manual machines.

Since the TS 3, TS 3/8 and the TS 8 engineering changes were never reflected in the product model identification, it is difficult to determine which model is being offered when dealing in the secondary market unless you know the serial number of the machine. If you have the serial number, you can determine which model you are considering. Follows a list of the various TS models and corresponding Creo and Heidelberg serial numbering:

		Serial Number Series
TS 3 Model:	Creo	S001 to S331
	Heidelberg	98363XXX, 99363XXXX
TS 4 Model:	Creo	BWI has never seen a TS 4 manufactured by Creo
	Heidelberg	99371XXXX, 00371XXXX
TS 4 Spectrum:	Heidelberg	00385XXXX
TS 3/8 Model:	Creo	S332 - 566
	Heidelberg	993861324 and up
TS 8 Model:	Creo	TE 001 and up
	Heidelberg	003860000 and up

In addition to the serial number itself, there is a prefix associated with all Creo and/or Kodak serial numbers that can aid in the identification of a machine. However, this can just be used as a guide, and not provide absolute certainty about the type of machine being evaluated, since Creo has the ability to upgrade or downgrade many of their machines. Follows an analysis of the serial number prefixes gathered by BWI and from third parties.

Index of Creo Serial Number Prefixes

C	This is the original green laser platesetter. Completely obsolete.
S	Serial numbers from S001 to S331 are the original version of the Trendsetter, the TS 3.
S	Serial numbers S332 and up designate the transition models (TS 3/8). These are nearly always Trendsetter 3244s. BWI has only seen two S model 3230s, and they were based on the TS3/8 architecture. We believe these were 3244 models reprogrammed as 3230s. All other 3230s encountered by BWI have been TS4 Heidelberg machines, with Heidelberg serial numbers.
TE	Serial numbers with this prefix designate the re-engineered TS 8 model Trendsetters.
PR	Prefix used for Spectrum proofers manufactured prior to the TS 8 engineering design.
PX	Prefix used for Spectrum proofsetters with TS 8 engineering design.
TR	Prefix used for the Trendsetter 400 models.
TM	This prefix can be found on Trendsetter models with the 800 designation.
TMB	This prefix can be found on Trendsetter 800 models with Spectrum option.
NM	This prefix was used on the Trendsetter News models.
B	Prefix used on VLF Trendsetters.
BB	Prefix used on Beta VLF Trendsetters.
FX	Prefix used on the Thermoflex CTP device.
MT	Prefix on the new Magnus VLF platesetters.

CREO Purchase of Scitex Graphic Arts Division

Creo completed negotiations with Scitex for the purchase of their graphic arts division in April of 2000. This purchase added the Lotem 400 and 800 platesetters to Creo's stable of 4-up and 8-up devices. Like Creo's Trendsetters, the Lotems were based on external drum technology. Unlike the Trendsetters, the Lotems featured automatic plate-loading with slipsheet removal, optional press punches, and optional online processor compatibility—none of which were strong features in the Trendsetter design. Punches were not available at all on the Trendsetters. Creo did have an Autoloader option available for the Trendsetters, but being void of slipsheet removal and the ability to handle multiple plate sizes, it fared poorly in the marketplace.

The original Lotem 800 was a 16 diode array device introduced by Scitex in mid -1997. The Lotem, however, did not become a serious market contender until early 1998 when the 24 diode model was introduced. From early 1998 until the sale to Creo in April 2000, Scitex was able to make substantial inroads with the Lotem 800 series in the U.S. and world markets. Much of this success can be attributed to the unique features noted above, which were unavailable elsewhere at the time, except on the Screen PT-Rs. Furthermore, like the Screen PT-Rs, the Lotem used a diode array which allowed for continued operation even if a diode failed.

Although Scitex had other products such as the Lotem XL (VLF models) and the Lotem Flex 40/45 (a flexo platesetter), only the 24 diode Lotem 800V and 48 diode Lotem 800V2 had substantial success in the U.S. market. The Lotem 400V, although a well engineered 4-up device, was not sold in any substantial quantity in the U.S.

One drawback of the Lotem models is that these machines are only compatible with a Brisque or Prinergy RIP (or also a PS/M for the Lotem 400). There are no compatible third party RIPs or TIFF catchers. However, at current price levels, pre-owned Brisque RIPs are affordable as a TIFF catcher. Further, anyone considering the purchase of a Lotem should be aware of the change in late 1999 in the type of RIP interface these machines could accommodate. This change converted the original fiber optics to faster "Turboscreening" technology. To convert a fiber optics Lotem to the current Turboscreening technology requires the replacement of all the laser diode controller boards - 24 for the 800V and 48 for the 800V2. Because of the expense and labor required for this conversion, non-Turboscreening machines should be avoided.

Following the acquisition of Scitex by Creo, the adaptation of the Creo laser head to the Lotem became one of Creo's top priorities. In September of 2001, Creo announced the Lotem 800 Quantum, which incorporated the newly designed TH 2.0 laser head, a Creo-style head engineered specifically to work within the confines of the Lotem architecture. After integrating the Creo laser head into the Lotem product line, Creo continued with new model introductions of both Lotems and Trendsetters

In 2002, Creo introduced the TH E head (entry level), which allowed the introduction of a lower priced "entry-level" model of the Trendsetter. This head led to the requirement for a new designation to distinguish the original full-featured SQUAREspot laser head from the new entry level models. This was the origin of the Quantum designation. It is safe to assume that all non-Quantum Trendsetters with the 400 or 800 designation contain the entry level head. The entry-level Trendsetters have a variety of limitations compared to the full-fledged models (see the Laser Design section for details).

Creo also introduced a new lower priced model of the Lotem, the Lotem 800II. The Lotem 800II has the same entry-level limitations as the non-Quantum Trendsetters. While we are not sure exactly what laser head is contained in the Lotem 800II, we've deduced that it is a TH 2.0 head, since this head was engineered specifically for the Lotem product line. We believe that the light valve on the TH 2.0 head has been re-engineered for the entry-level Lotem models, much like the light valve in the TH E Trendsetter head, but we cannot say this with certainty. The Lotem 800II, which also incorporated a re-engineered drum size, was badged as a Quantum when fitted with the TH 2.0 laser head.

Both the Lotem and the Trendsetter entry-level lower price models are upgradable to the Quantum laser head and speeds.

Kodak Acquisition of Creo

Kodak acquired Creo in February 2005, and soon thereafter initiated extensive renaming and enhancement of the Creo product line. The Lotem 400V was renamed the Magnus 400, which featured increased speed and line screen capabilities. Also at this time, the Lotem 400 Quantum was renamed the Magnus 400 Quantum, which featured a slight increase in speed.

Although Creo had announced the Magnus VLF in 2004, it was not until after the Kodak acquisition that this product became a reality. The Magnus VLF did not replace the TS VLF, but simply supplemented the VLF product line with a completely re-engineered model that featured more speed and automation features.

At Print China in June 2006, Kodak introduced the Magnus 800 platesetter. The Magnus 800 is a completely new product representing the marriage of the best of the Lotem combined with the best of the Trendsetter. The Magnus includes an entirely new autoloader design, which is more in keeping with those offered by Screen, and is available with a conveyor to an online processor. The Magnus 800 also includes a Debris Removal System standard, which was an option on the Trendsetters.

The plate loading mechanism on the Magnus 800 is also improved over the Trendsetter. Rather than having one plate load and unload slot like the Trendsetters, the Magnus has separate load and unload slots, allowing one plate to load at the same time as it unloads the exposed plate. Kodak calls this design Continuous Load.

Other significant product developments released on Kodak's watch were the TH 2.5 laser head and the TH 3 laser head. The TH 3 head is the first Creo/Kodak head to have two laser bars, and can be configured to create 448 imaging channels. This innovation is obviously Kodak's answer to the 512 channel GLV laser implemented by Agfa and Screen in some of their platesetters.

The following is a chronological listing of the model introductions by Kodak/Creo/Scitex.

4-UP Models	**Year**	**Max. & Min. Plate Size**		**Laser**
Trendsetter (TS) 3230	2/1999	33 x 30	15.5 x 13	TH 1.0
TS 3230 Spectrum	2/1999	33 x 30	15.5 x 13	TH 1.7
Lotem 400V	4/1999	29.5 x 24.5	15 x 12.5	24 diodes
TS 400	2000	30 x 26	13.4 x 13	TH 1.0
TS 400 Quantum (renamed 3230)	2002	33 x 30	15.5 x 13	TH 1.7
Lotem 400S	2002	29.5 x 24	12.3 x 9	12 diodes
Lotem 400 (Creo)	2002	29.5 x 24.5	12.25 x 9	24 diodes
Lotem 400 Quantum	2002	29.5 x 24	12.25 x 9	TH 2.0
TS 400 II Quantum	2005	33 x 30	15.5 x 13	TH 1.7
Magnus 400	2005	29.5 x 26.77	12.25 x 9	TH E
Magnus 400 Quantum	2005	29.5 x 26.77	12.25 x 9	TH 2.0
TS 400 III Quantum	2006	39 x 33	10.6 x 9	TH 2.5
Magnus 400 II	6/2008	30 x 26.9	11.8 x 8.9	24 diodes
Magnus 400II Quantum	6/2008	30 x 26.9	11.8 x 8.9	TH 2.0

8-UP Models				**Laser**
TS 3244 (TS 3)	9/1996	44 x 32	15.5 x 13	TH 1.0
Lotem 800V	1/1998	44.5 x 35.6	25.6 x 10.6	24 diodes
TS 3244 (TS 3/8)	6/1999	44 x 33	15.5 x 13	TH 1.0
Lotem 800V2	9/1999	44.5 x 35.4	25.6 x 19.3	48 diodes
TS 3244+ (TS 8)	6/2000	44 x 33	15.5 x 13	TH 1.0
TS 3244+ (TS 8) Spectrum	6/2000	44 x 33	15.5 x 13	TH 1.7
Lotem 800 (Creo)	2001	44.5 x 35.4	25.6 x 19.3	24 diodes
Lotem 800 Quantum	5/2001	44.5 x 35.6	18 x 15	TH 2.0
TS 800 Quantum	2002	45 x 33	15.5 x 13	TH 1.7

8-UP Models (cont.)	Year	Max. & Min. Plate Size		Laser
TS 800	2003	45 x 33	15.5 x 13	TH E
TS 800 II	2003	45 x 33	12 x 9	TH E
TS 800 II Quantum	2003	45 x 33	12 x 9	TH 1.7
Lotem 800 II	2003	44.5 x 35	18 x 14.5	Modified TH 2.0
Lotem 800 II Quantum	2003	44.5 x 35	18 x 14.5	TH 2.0
TS 800 II X	9/2005	45 x 33	12 x 9	Unknown
TS 800 II Quantum X	9/2005	45 x 33	12 x 9	TH 2.5
Magnus 800	6/2006	45.7 x 37.4	15 x 13	Unknown
Magnus 800 Quantum	6/2006	45.7 x 37.4	15 x 13	TH 2.5
Magnus 800Z Quantum	6/2008	45.7 x 36.9	15 x 12.5	TH 2.5
Trendsetter 800 III	6/2008	45 x 33	12 x 9	TH E
Trendsetter 800 III Quantum	2008	45 x 33	10.6 x 9	Unknown
VLF Models				
TS 4557 VLF	9/1996	57 x 45	20 x 15.5	TH 1.0 192 channels
TS 5067 VLF	9/1996	67 x 50	20 x 15.5	TH 1.0 192 channels
TS 5467 VLF	9/1996	67 x 54	20 x 15.5	TH 1.0 192 channels
TS 5080 VLF	9/1996	80 x 50	20 x 15.5	TH 1.0 192 channels
TS 5880 VLF	9/1996	80 x 58	20 x 15.5	TH 1.0 192 channels
TS 4557 VLF	11/1998	57 x 45	20 x 15.5	TH 1.7 192 channels
TS 5067 VLF	11/1998	67 x 50	20 x 15.5	TH 1.7 192 channels
TS 5467 VLF	11/1998	67 x 54	20 x 15.5	TH 1.7 192 channels
TS 5080 VLF	11/1998	80 x 50	20 x 15.5	TH 1.7 192 channels
TS 5880 VLF	11/1998	80 x 58	20 x 15.5	TH 1.7 192 channels
Lotem XL 45/80	9/1999	80 x 45	18 x 18	48 diodes
Lotem XL 55/80	9/1999	80 x 55	18 x 18	48 diodes
Lotem XL 60/80	9/1999	80 x 60	18 x 18	48 diodes
TS 4557 Quantum	6/2000	57 x 45	20 x 15.5	TH 1.7 224 channels
TS 5067 Quantum	6/2000	67 x 50	20 x 15.5	TH 1.7 224 channels
TS 5080 Quantum	6/2000	80 x 50	20 x 15.5	TH 1.7 224 channels
TS 5880 Quantum	6/2000	80 x 58	20 x 15.5	TH 1.7 224 channels
TS 4557 QPackaging	12/2000	57 x 45	20 x 15.5	TH 1.0 128 channels
TS 5067 QPackaging	12/2000	67 x 50	20 x 15.5	TH 1.0 128 channels
TS 5467 QPackaging	12/2000	67 x 54	20 x 15.5	TH 1.0 128 channels
TS 5080 QPackaging	12/2000	80 x 50	20 x 15.5	TH 1.0 128 channels
TS 5880 QPackaging	12/2000	80 x 58	20 x 15.5	TH 1.0 128 channels
TS 4557E VLF	7/2001	57 x 45	20 x 15.5	TH 1.7 Entry
TS 5067E VLF	7/2001	67 x 50	20 x 15.5	TH 1.7 Entry
TS 5467E VLF	7/2001	67 x 54	20 x 15.5	TH 1.7 Entry
TS 5080E VLF	7/2001	80 x 50	20 x 15.5	TH 1.7 Entry
TS 5880E VLF	7/2001	80 x 58	20 x 15.5	TH 1.7 Entry
Magnus VLF 4570	2005	70 x 45	19.3 x 15.5	TH 3.0=X, TH 2.5=S/F, TH 2.7=VF
Magnus VLF 5183	2005	83 x 51	19.3 x 15.5	TH 3.0=X, TH 2.5=S/F, TH 2.7=VF
Magnus VLF 5570	2005	70 x 55	19.3 x 15.5	TH 3.0=X, TH 2.5=S/F, TH 2.7=VF
Magnus VLF 6383	2005	83 x 63	19.3 x 15.5	TH 3.0=X, TH 2.5=S/F, TH 2.7=VF
Magnus XLF 80	6/2008	88.9 x 51	31.5 x 19.7	TH 3.0=X, TH 2.5=S/F, TH 2.7=VF
Trendsetter VLF 80	6/2008	80 x 58	20 x 15.5	TH 2.5 / TH 2.7

See pages 34 - 35 for productivity specs on these models.