

New equipment for the 8th generation LCD color filter manufacturing business Featuring new technology that significantly reduces production costs

The FPD Equipment Company (President: Yoshinari Yaoi) of Dainippon Screen Mfg. Co., Ltd. (Headquarters: Kyoto, Japan) has developed two new products featuring unique new technology that will significantly reduce the cost of producing LCD color filters. Sales will commence in April 2007.

In recent years, as LCD televisions, especially in larger sizes, have rapidly become more common, LCD panel manufacturers have been searching for ways to reduce costs further. For this reason, the manufacturing of LCD color filters, which have such a great impact on panel production costs, has focused not only on increasing filter functionality but also on decreasing manufacturing costs, in order to decrease overall LCD panel prices.

SCREEN has developed two new products that will help the LCD manufacturing field achieve that goal sooner. They are the DF-2200G, a direct imaging system used to expose color filters, and the LF-2200G, a coater for color filters.

The DF-2200G features variable aperture projection, a high-level exposure technology that can be used to enhance established mass production lines. In addition to producing stripe patterns in cell pitches chosen by the user, its aperture unit features dozens of pre-drawn patterns. As a result, the DF-2200G can expose a variety of patterns and line widths onto the glass substrate without requiring the mask itself to be replaced. This dramatically reduces the running costs associated with the replacement and maintenance of masks, as well as the manufacturing costs associated with creating the large format masks that were required for each pattern in traditional mask exposure. In fact, mask costs can be reduced by about 500 million yen per year for each unit of 8th generation exposure equipment. What's more, since the DF-2200G makes it possible to switch between multiple exposure patterns within a short period of time, it also helps reduce the time required for testing during the development of new products.

The LF-2200G is a coater that applies color filter materials using Linearcoater[®], a slit coating system with a proven record in TFT and other types of manufacturing. The LF-2200G is flexible enough to deal with the unique characteristics of various types of color filter materials, and offers superior coating precision.

With the development of these new products, SCREEN will be making its first foray into the large-size LCD color filter field. SCREEN is confident that its LCD color filter manufacturing equipment will enhance the LCD color filter manufacturing field, just as its TFT manufacturing equipment has improved TFT manufacturing. SCREEN will continue to refine its products to suit the changing needs of its customers in these fields.



DF-2200G

Please download the photo from
<http://www.screen.co.jp/press/nr-photo/indexE.html>

■ DF-2200G direct imaging system

Date sales are expected to commence:

April 2007

Equipment size:

8.5 x 4.4 x 3.6 (meters, W x D x H, not including laser unit)

Expected sales (fiscal year 2007):

12 units

Suggested retail price in Japan (before tax):

1 billion yen (price may vary with selected specifications)

■ LF-2200G color filter material coater

Date sales are expected to commence:

April 2007

Equipment size:

16 x 5 x 4.5 (meters, W x D x H, may vary with selected specifications)

Expected sales (fiscal year 2007):

12 units

Suggested retail price in Japan (before tax):

500 million yen (price may vary with selected specifications)