

车房镜片中，为了让视光学从业人员容易阅读镜片上的隐形标需要在镜片上印刷防水而又不伤镜片的明标，俗称“黄标”，目前行业中通常采用的是移印或数码喷印的办法。

移印是将移印钢板上的图案移印到镜片上，特点是简单，快捷，移印效果好，技术非常成熟，但是有一个最大的缺点，就是不同的图案需要刻蚀不同的移印钢板。数字喷印技术就像打印机一样，不需要做任何钢板，可以随时喷印你需要的图案，但是在相同效果下，喷印通常会比移印慢，另外喷印因为油墨可能会堵塞喷孔，一般需要良好的日常维护。目前数码喷印技术可分为两大类，一类是采用热熔油墨，另一类采用UV紫外固化油墨。两者的区别在于UV油墨的墨点可以控制得非常精细，所以分辨率要比热熔油墨的好，因而喷印效果要优于热熔油墨。

In RX Labs, in order to make it easy for optometry practitioners to read the invisible marks on the lens, RX lens are normally inked with waterproof image, known as the "Yellow Label" image and currently attained by pad printing or inking digital printing in the industry.

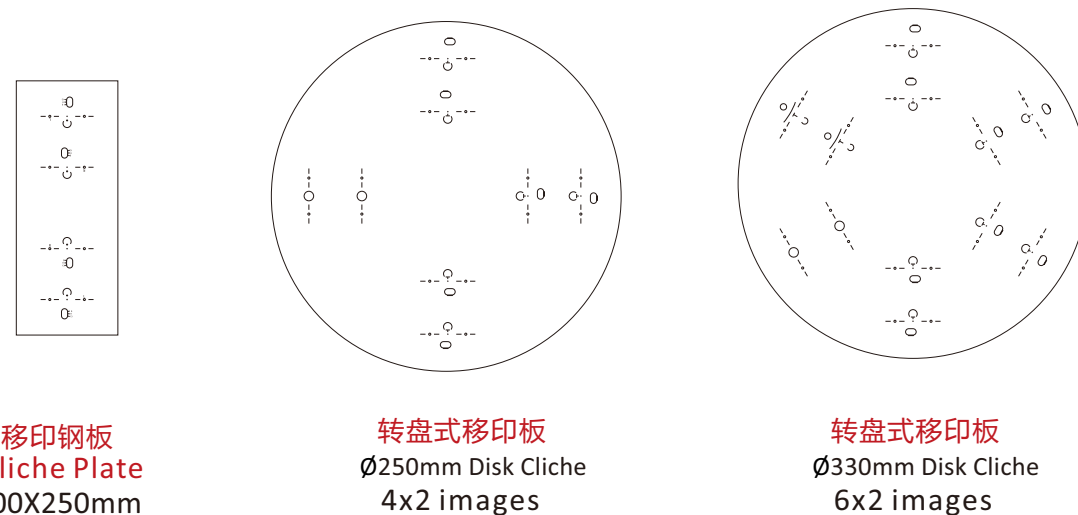
Pad printing is to transfer cliché pattern to the lens surface. Its advantage is its simplicity and fast speed in producing excellent quality images, but the big downside is that cliché plates have to be prepared for each image. Just like ink printers, digital ink printing system allows you to print any image without cliché need at anytime, which is why digital inking system is replacing pad printing. But compared to pad printing, digital ink system has longer cycle time and needs to be well maintained, otherwise nozzles will be blocked easily. At present, digital inking printing system can be sorted into two classes according to different ink used. One is solvent ink, the other is UV ink. UV ink point can be easily controlled to get precise and fine results, thus it can produce image with finer and better quality compared to wax solvent ink.

常规的黄标印刷设备都不带隐形标志可读系统，导致激光隐形标志和油印的明标最大偏差2mm以上，这个偏差其实已经超过了通道的宽度。而眼镜验配人员根据这样的油印标装配的眼镜显然是不合格的。但问题出现的根源在车房的黄标印刷环节。

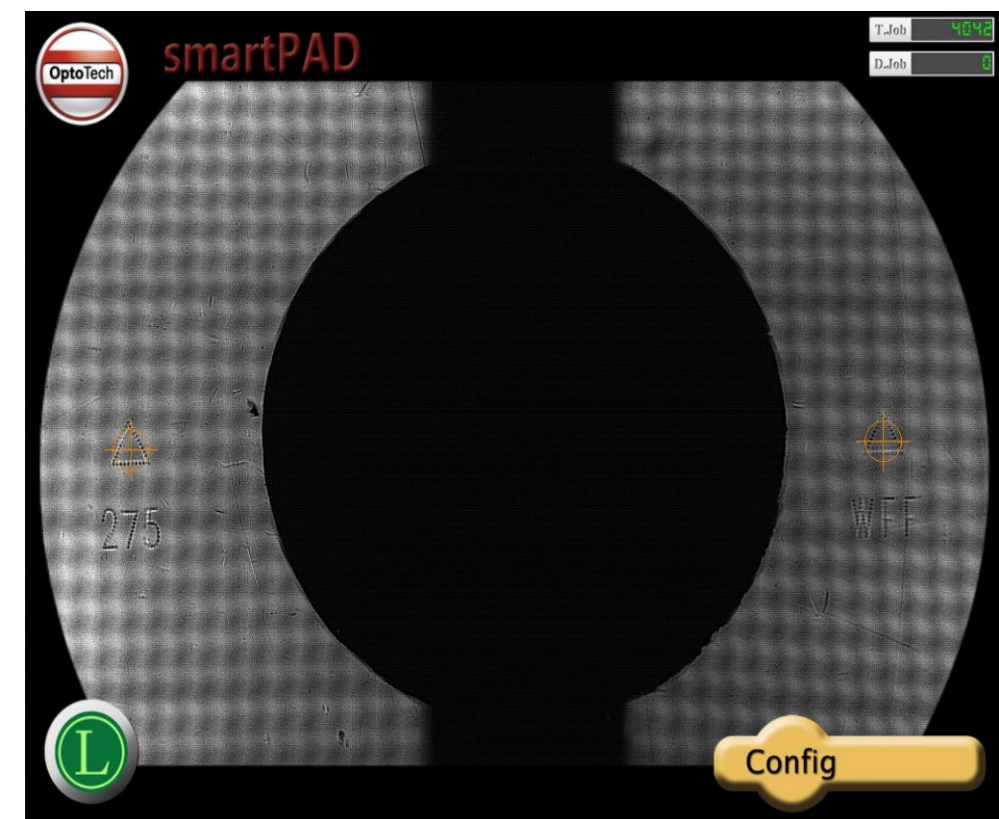
为了解决这一难题，Toplens公司推出了两大类产品，一类是带隐形标志可读系统的移印机OPP系列，由于可靠和容易维护，目前已经成为行业的标准。另外一类是能自动识别隐形标志的全自动数码喷印机DIP系列，正引领技术向前发展。

Because conventional pad printing machines don't have visual aid for invisible marks, it is possible to have a maximum deviation of more than 2mm, which has actually exceeded the width of the channel. Fitting lens into frames according to this mispositioned yellow mark by the optical shop officer is obviously not up to par, but such mistake shall be traced back to the yellow mark printing cycle in RX labs.

To obtain an effective solution, Toplens has accomplished two products. One is the pad printing and digital inking system, OPP Pad Printer series with invisible mark visual system, which has become the industry reference due to its reliability and easy maintenance. The other is DIP serial digital inking system that has been leading the development of technology.



高清晰激光隐形标记可视系统  
Invisible Mark Visual Unit



TP-01

TP-01系列采用单工位，R/L眼一体设计。更换图案通过更换移印钢板实现。它适用于150jobs/天以下的小型车房。

TP-01 is single-station design, R/L image on one same cliché. Replacing pattern achieved by replacing the cliché plate. It applies to small labs with 150 jobs/day capacity.



FEATURES

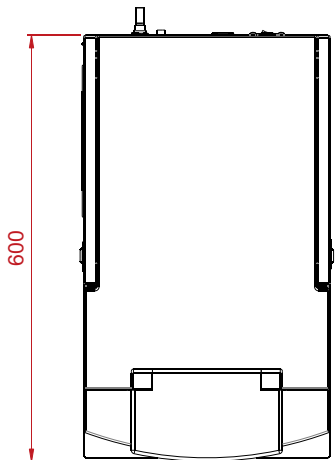
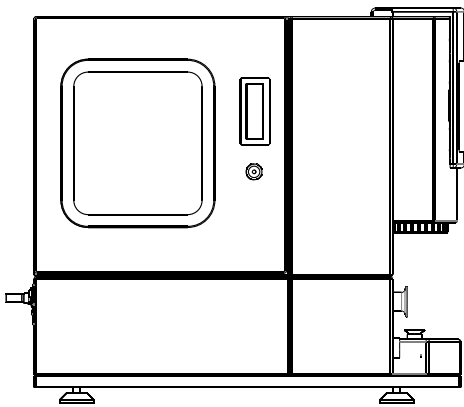
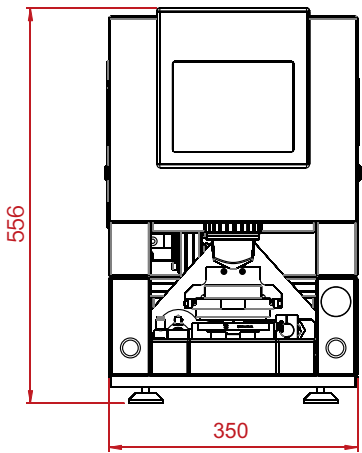
生产效率：500片/小时	Capacity: 500pcs/hr
左右镜片的移印图案位于同一块移印板上	R/L lenses by one cliché
用于Rx镜片和半制品移印的紧凑型设计	Compact design for RX and semi-finished lens
清晰的激光隐形标记可视系统辅助对准	Clear visual aid for invisible marks to improve printing quality and efficiency
采用φ90mm的油盅	Closed φ90mm Ink tank with tungsten lips
R/L移印图案均被油盅覆盖，即使中断移印也不需要清洗移印板再移印	Pattern R and L always covered by Ink-tank, enabling non continuous pad printing
8.4寸 1024x768液晶触摸式显示屏	8.4" 1024 x768 TFT LCD with touch screen
Windows XPE sp3	Embedded Windows XP sp3
接口：2xUSB, 1xRJ45, 1xCOM	Interface: 2 xUSB, 1x RJ45,1x COM
符合CE标准设计	Standard design in compliance with CE regulations

TECHNICAL DATA

压缩空气	>4bar	Air Pressure
输入电源	80-230V AC 50/60Hz	Voltage
功率	0.3kW	Power
外形尺寸	530x350x600mm	Dimensions
重量	about 60 kg	Weight

Accessories

品名 Items	规格 Description	部件号P/N
油盅 Ink tank	φ90 Tungsten Knife	030-002-012
油墨 Ink	Black	030-001-008
	Orange	030-001-007
胶头 Pad	64*42	030-004-003
钢板 Cliché Plate	110x220x10	030-001-002



技术参数

附件

三视图

技术特性

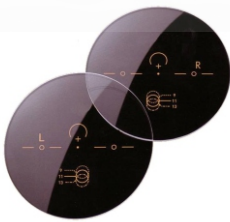
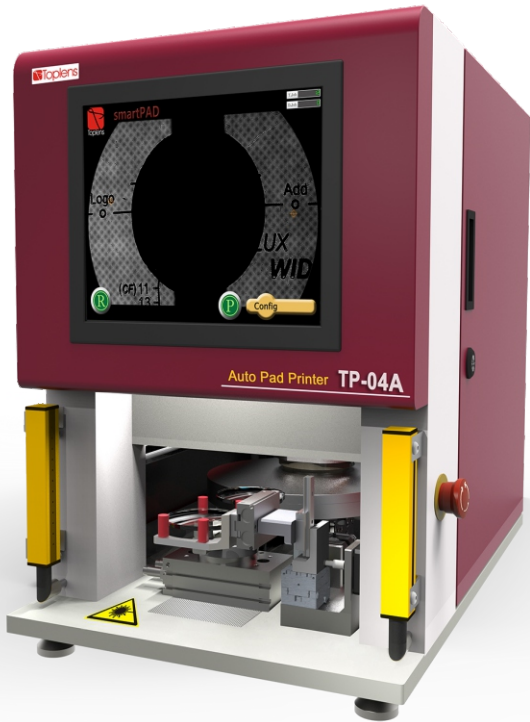


TP-04A

TP-04是一款自动移印机，可以自动设别隐形标志，操作者从视觉疲劳的工作中解放出来；其300副/小时的效率完全可以适合大中型车房。集成4x2个图案自动切换单元，左右眼移印图案均被油墨覆盖，在不换钢板的情况下，可以满足4个设计的移印工作。

TP-04 designs for Automatic pad printing RX lens or Semifished blank. Thanks automatic invisible mark reading system, make operator escape from fatigue in vision. 300jobs/hour can meet large and medium RX Labs' demand.

TP-04A automatic pad printer equipped a exchangeable round disk cliché with 4xRL patterns



FEATURES

生产效率: 600片/小时	Capacity: 600pcs/hr
双工位设计	Two-station design
盘式移印板，一盘集成4x2个移印模板，	One disk cliché with 4x2 design
可更换的移印板	cliché exchangeable design
用于RX镜片和半制片移印的紧凑型设计	Compact design for RX and Semi-finished lens
清晰的激光隐形标记自动设别系统	Automatic invisible mark readingsystem
左右移印图案均被油墨覆盖，即使中断移印也不需要清洗移印板再移印	Pattern R and L full covered by ink-tank, enabling non continuous pad printing
12.1寸1024x768液晶触摸式显示屏	12.1" 1024x 768 TFT LCD with LED backlight
嵌入式Windows XPE	Embedded Windows XP sp3
接口: 4xUSB、1xRJ45、1xCOM	Interface: 4 xUSB, 1x RJ45, 1x COM
可与服务器、镜片检测仪和标签打印机联机	Enable to communicate with RX Lab server
符合CE标准设计	Standard design in compliance with CE regulations

技术特性

TECHNICAL DATA

压缩空气	>4bar	Air Pressure
输入电源	80-230V AC 50/60Hz	Voltage
功率	0.5kW	Power
外形尺寸	670x420x660mm	Dimensions
重量	about 100 kg	Weight

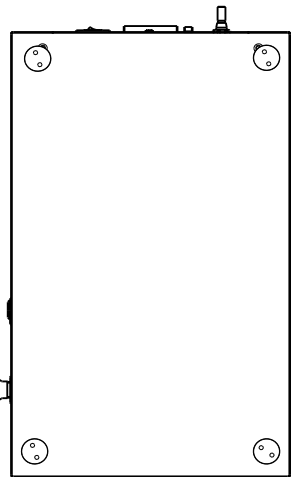
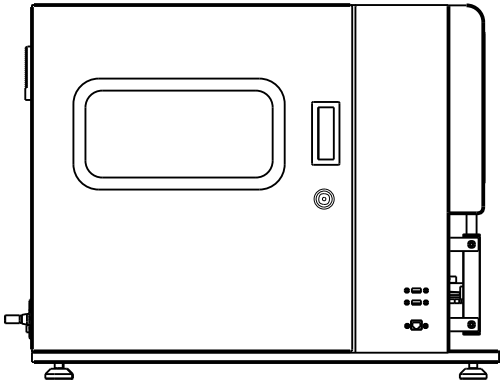
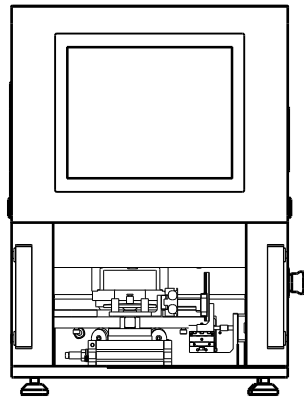
技术参数

Accessories

品名 Items	规格 Description	部件号P/N
油墨 Ink tank	Tungsten Knife	030-002-012
油墨 Ink	Black	030-001-008
	Orange	030-001-007
胶头 Pad	64*42	030-004-003
钢板 Cliche Plate	φ250x10	030-001-004

附件

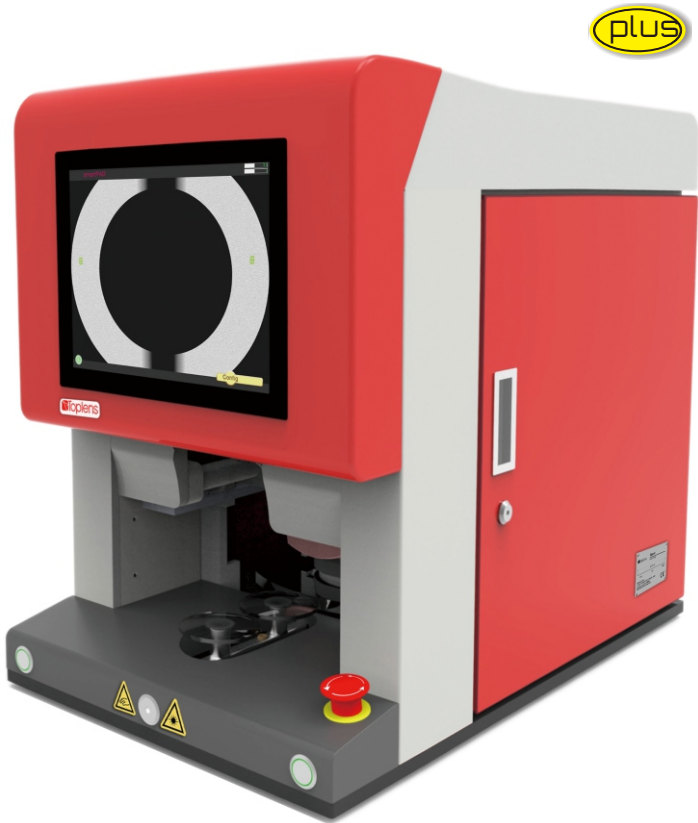
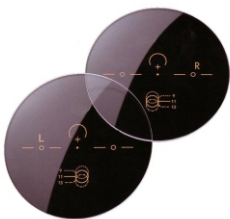
三视图



TP-06

为了迎合150jobs/天以上的中型车房，省去更换移印钢板的麻烦，我们推出了TP-06移印机. 它采用大圆盘钢板设计，集成6x2个图案自动切换, 左右移印图案均被油墨覆盖, 至少可以满足6个设计的移印工作。

In order to meet the need of medium size labs with the above 150jobs/day capacity, eliminating the trouble of replacing the cliché plate, we launched TP-06 pad printer. It has a large round disk cliché plate design, integrated with 6x2 patterns, meeting printing jobs with at least six designs.



FEATURES

生产效率: 600片/小时	Capacity: 600pcs/hr
双工位设计	Two-station design
盘式移印板，一盘集成6x2个移印模板，	One disk cliché with 6 x2 design
不再有更换移印板的麻烦	No cliché exchange trouble
用于RX镜片和半制片移印的紧凑型设计	Compact design for RX and Semi-finished lens
清晰的激光隐形标记可视系统辅助对准	Clear visual aid for invisible marks to improve printing quality and efficiency
左右移印图案均被油墨覆盖，即使中断移印也不需要清洗移印板再移印	Pattern R and L full covered by ink-tank, enabling non continuous pad printing
12.1寸1024x768液晶触摸式显示屏	12.1" 1024x 768 TFT LCD with LED backlight
嵌入式Windows XPE	Embedded Windows XP sp3
接口: 4xUSB、1xRJ45、1xCOM	Interface: 4 xUSB, 1x RJ45, 1x COM
可与服务器、镜片检测仪和标签打印机联机	Enable to communicate with RX Lab server
符合CE标准设计	Standard design in compliance with CE regulations

技术特性

TECHNICAL DATA

压缩空气	>4bar	Air Pressure
输入电源	80-230V AC 50/60Hz	Voltage
功率	0.5kW	Power
外形尺寸	670x420x660mm	Dimensions
重量	about 100 kg	Weight

技术参数

Accessories

品名 Items	规格 Description	部件号P/N
油墨 Ink tank	Tungsten Knife	030-002-012
油墨 Ink	Black	030-001-008
	Orange	030-001-007
胶头 Pad	64*42	030-004-003
钢板 Cliché Plate	φ320x10	030-001-003

附件

三视图

