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除膜机培训确认单

Training Confirmation of Automatic Low-E Glass Edge Deleting Machine

第一部分：验收与安装

Section 1: Checking and Installation

调试步骤 Debugging Steps	培训内容 Training content	所达标准 Required Standards	操作员签字 Signature of operator	主管签字 Signature of supervisor
第一步 Step 1	在现场开箱验收，检查设备有无丢失、破损、水淋，因运输造成的损坏。 Check and inspect the equipment on site whether the equipment is lost, damaged, water spary, or damage caused by transportation.	检查登记确认无误，查收说明书、合格证、附件，有问题立即报告销售负责人。 Check the registration confirmation, check the instruction, certificate, attachment,.If there is any problem,inform the according salesman.		
第二步 Step 2	设备安装场地确认 Confirmation of equipment installation site:	现场评估安装条件，不能保证设备要求的向客户提出改进。Site evaluation and installation		

	<p>1、确认厂地、电源、气源、地面是否具备安装条件。 Confirm whether the factory floor, power supply, air source and ground have installation conditions</p> <p>2、保证设备顺利到达安装位置，现场清洁。 2 Ensure the equipment reaches the installation site smoothly and clean the site.</p>	<p>conditions. Inform the customer if there is anything needed to be improved</p>	
第三步 Step 3	<p>各部分组装，用铝型材作直尺，使背靠轮在一个水平面上； Parts assembly: the aluminium profile is used as the ruler to make the back wheel on a horizontal plane;</p>		
第四步 Step 4	<p>设备排线：距后墙或参照物 3.5 米（单机 2 米）画细实线，按照设备外形图将各段顺序排线，照顾首部留有操作维修空间，尾部与生产线 01 段间距小于 10MM。 Equipment wiring: 3.5 meters from the back wall or reference (2 meters) single thin lines, according to the outline drawing of the equipment will be paragraphs order line, take care of the first leave space operation and maintenance, and the tail with production line 01 paragraph spacing is less than 10 mm.</p>	<p>注意检修，安全空间 > 1m Attention maintenance, safe space > 1m.</p>	
第五步 Step 5	<p>设备机械安装：Equipment installation:</p> <p>1、检查所有紧固螺栓、螺母等有无松动，进行紧固 Check all fastening bolts, nuts and other loose, tighten.</p> <p>2、安装因运输等原因拆下的零件。Installation of parts removed due to transportation and other reasons.</p> <p>3、各段进出部位紧靠背靠轮（板）放同样厚度的玻璃，用吊线锤，吊到细实线上，全线调直；全线调整水平：用工业水平仪，以玻璃传动辊上母线测量，全线高度一致；用 6° 角度尺调整，传送背靠轮面倾角为 $6^{\circ} \pm 15'$，全线为同一倾斜面。</p>	<p>整机传动辊共线度误差不大于 3mm，各段不大于 1mm。相邻两段用 2 块 The total linearity error of the whole drive roller is not greater than 3mm, and each segment is not greater than 1mm. Two adjacent paragraphs are 2 pieces.</p> <p>1500×1500mm 玻璃对严，检查无眼观不平和间隙，使用水平仪调平。 1500 x 1500mm glass pressing is nice, the</p>	

<p>按以上步骤反复多次调整调，整好后，紧固调整螺栓。</p> <p>The same thickness of glass shall be placed on the back of each section in and out, with the same thickness of the glass, and the hammer shall be used to lift it to the fine line, and the whole line will be straightened. Level of adjustment: using industrial level meter, the bus is measured on the glass transmission roller, and the whole line is highly consistent. Feet with 6 ° Angle adjustment, to send back wheel plane obliquity is 6 ° + 15 ', all for the same inclined plane. Follow the above steps repeatedly to adjust the adjustment, after finishing, tighten the adjusting bolts.</p> <p>4、胶辊的安装，装上胶辊，调整螺栓和顶丝，使胶辊和传送轮母线垂直 Install the rubber roller, install the rubber roller, adjust the bolt and top wire, and make the rubber roller and the transmission wheel bus vertical.</p> <p>5、除膜机头立柱安装到位，反复调整地脚螺栓和顶丝，使立柱与传送轮母线垂直 In addition to the installation of the film head column, adjust the anchor bolt and the top wire repeatedly, so that the vertical column is perpendicular to the transmission line bus.</p> <p>6、风路系统安装：按风路系统图接好吸尘管 Installation of wind road system: connect the suction pipe according to the wind road system diagram.</p> <p>7、气路系统安装：连接厂方气源，按气路系统原理图连接好管路。</p> <p>Installation of gas road system: connect the gas source of the</p>	<p>inspection is not visible to the naked eye uneven and clearance, using the level of the level.</p> <p>厂方气源压力不低于 0.5MPa, 检查管路无泄漏，管路整齐排列适当，紧固可靠，开关正确。</p> <p>The air source pressure of the factory is not less than 0.5mpa, the inspection pipeline is free of leakage, the pipeline is properly arranged and reliable, and the switch is correct.</p> <p>设备机械安装正确，检查无误，擦拭干净。</p> <p>Equipment machinery installation is correct, check correct, wipe clean.</p> <p>整机与上片机、生产线背面在一个平面上，传送轮上侧线在一个直线上</p> <p>The whole machine is on a plane with the upper and the back of the production line, and the lateral line of the transmission wheel is on a straight line.</p>		
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	<p>factory and connect the pipeline according to the schematic diagram of the gas road system.</p> <p>8、检查、擦拭设备，细心逐一到位。Check and clean the equipment carefully</p>		
<p>第六步 Step 6</p>	<p>1、安装调整因运输等原因拆下的人机界面、光电开关、行程开关等控制元器件。Installation and adjustment of control components such as man-machine interface, photoelectric switch, travel switch and so on due to transportation and other reasons.</p> <p>2、按电气原理图，将各段联接电缆按线号、标识等连接好，并连接各段接地线。检查所有的线号、标识等与说明书一致，分别放置在线缆槽内。 According to the electrical schematic diagram, connect the connecting cables of each segment to the line number, mark, etc., and connect the grounding wires of each section. Check all line Numbers, signs and other instructions, and place them in the cable slot respectively.</p> <p>3、检查所有的紧固螺钉，保证控制线不松动。Check all fastening screws to ensure the control line is not loose.</p> <p>4、接通气源，气压要求 0.5~0.8MPa，检查气路是否有漏气现象，压力表是否显示正常。手动各电磁阀，看各个气缸管路连接、动作是否正确 Connect the air source, the pressure requirement is 0.5 ~ 0.8mpa, check whether there is air leakage in the gas path, and whether the pressure gauge is normal. Manually each solenoid valve, see each cylinder pipeline connection, the movement is correct.</p> <p>5、检查所有传动辊轮、传送电机、链轮、链条、传动齿轮</p>	<p>按电气设计要求，正确规范接线，安全可靠。链轮与链条安装后，应保证链条处于铅垂状态。链条不应拉得过紧，亦不过松，保证各轮轴转动自由，不应有发卡、咬链或异常声音出现。</p> <p>玻璃运行平稳，不跳动，不落下</p> <p>According to electrical design requirements, correct wiring, safe and reliable.</p> <p>Chain wheel and chain installation should ensure that the chain is in plumb state. The chain should not be too tight, but loose, ensuring that the rotation of each wheel is free, and there should be no card, chain or abnormal sound.</p> <p>The glass runs smoothly, does not beat, does not fall.</p>	

	<p>啮合是否正常，传动运转部件不得有卡死现象。</p> <p>Check whether all the driving roller, transmission motor, chain wheel, chain, transmission gear meshing is normal, and the driving parts shall not have card death.</p>			
<p>第七步 Step 7</p>	<p>试通电检查： Test power inspection:</p> <p>1、检查设备接地绝缘电阻$\geq 1M\Omega$，各段分别接地。 Check the equipment grounding insulation resistance 1 m or more Ω, grounding paragraphs respectively.</p> <p>2、检查厂方电源是否符合说明书中的电源要求，准确无误后方可接电。 Check whether the power supply of the manufacturer conforms to the power requirements in the instruction manual, and can be connected to the power after the accuracy is correct.</p> <p>3、操作面板上各控制旋钮均打到手动位置，触摸屏点击“升降原点”“旋转原点”。检查各动作是否正常。 Each control knob on the operation panel is in the manual position, and the touch screen is clicked "lifting origin" and "rotation origin". Check whether the movements are normal.</p> <p>4、点击运行参数，输入各个参数 Click the running parameters and input various parameters.</p>	<p>绝缘电阻$\geq 1M\Omega$ Insulation resistance 1 m or more Ω</p> <p>220V、50Hz，总功率 7Kw，并有接地装置，电压稳定。 220V, 50Hz, total power 7Kw, with grounding device and voltage stability.</p> <p>手动动作、方向正常，汽缸缓冲动作正常。 Manual movement, normal direction, normal cylinder buffer.</p>		
<p>第八步 Step 8</p>	<p>试除膜：Test for edge deletion</p> <p>1、工作模式“自动”，“伸缩原点”，选定进出比例方向，设定磨轮宽度及除膜宽度，设置除膜速度，准备工作完毕 The working mode is "automatic" and "retractable origin". Select the direction of the moving in and out, set the width of</p>	<p>各动作正常无误，缓冲正常 All the movements are normal, the buffer is normal.</p>		

	<p>the grinding wheel and the width of the film, and set the film speed, and prepare the work.</p> <p>2.将玻璃放置到进料段，踩脚踏开关，传送启动，进入除膜机进行除膜，仔细观察测量除膜宽度、除膜质量、每条边开始结束时间等，根据实际情况调整参数。</p> <p>Place the glass to the feed zone, stepping on foot switch, transfer to start, enter in addition to in addition to the membrane film machine, look carefully measured in addition to the film width, in addition to the film quality and each edge began to end time, adjustment of parameters according to actual situation.</p>	<p>除膜宽度、除膜质量、每条边开始结束时间</p> <p>Edge deletion width,quality,each edge start and end time.</p>		
<p>第九步 Step 9</p>	<p>客户交验：Customer inspection:</p> <p>1、确认设备工作运行正常可靠，进行客户交验。</p> <p>1. Confirm that the equipment operation is normal and reliable, and conduct customer inspection.</p> <p>2、请客户验收负责人到现场，按设备正常工作程序、客户的特殊要求，逐项进行交验，并作好记录。</p> <p>2. Please check with the customer in charge of the client to the site, and make the inspection according to the normal working procedure of the equipment and the special requirements of the customer, and make a record.</p>	<p>如果特殊定货，按双方合同增加条款。</p> <p>In case of special order, the terms of the contract shall be increased.</p>		

第二部分：操作与使用

Section 2: Operation and Usage

<p>培训内容 Training content:</p>	<p>操作员工签字 Operation</p>	<p>主管签字 Executive</p>
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	staff signature	signature
<p style="text-align: center;">一：基本操作及维修保养</p> <p>1、整机安全操作步骤及注意事项。Safety operation steps and matters needing attention.</p> <p style="padding-left: 40px;">2、各开关的作用。The function of each switch.</p> <p style="padding-left: 40px;">3、人机界面内各参数的意义合调整方法，各页面详细功能。</p> <p>The meaning and adjustment method of each parameter in the man-machine interface, the detailed functions of each page.</p> <p>4、将控制面板上工作模式旋钮旋至“自动”，按“启动”按钮，自动启动磨轮校准和吸盘回原点功能。</p> <p>Rotate the working mode knob on the control panel to "auto", press the "start" button, and automatically start the grinding wheel calibration and suction return to the origin function.</p> <p>5、磨轮校准及吸盘回原点完成后，在触摸屏“矩形除膜”画面将触摸宽度设定完毕后，将玻璃放至入料段，踩脚踏开关，玻璃自动进入除膜段进行除膜。</p> <p>after the completion of the grinding wheel alignment and the suction cup back to the origin, the touch screen rectangle in addition to the film images will touch width is set to end, put to the glass into the material section, stepping on foot switch, automatic glass into the membrane sections in addition to the film.</p> <p style="padding-left: 40px;">除膜完毕后玻璃自动传送至出料段。即可进行下一片除膜。</p> <p>The glass is automatically transferred to the discharging section after the film is finished. You can do the next one.</p> <p style="padding-left: 40px;">关机，待除膜完毕后将工作模式旋钮旋至“手动”，断掉电源气源即可。</p> <p style="padding-left: 40px;">Turn off the machine and turn the working mode knob to "manual" after the film is finished.</p> <p>6、磨轮修正：磨轮在长时间使用后，表面会凹凸不平，为保证除膜质量，磨轮需要及时修整每次修整磨轮前需先校准磨轮。点击触摸屏主画面“磨轮修整”设备自动运行。每次修整的最大吃刀量为 0.5mm，如一次修整达不到使用要求可多次修整。建议每除膜 10-20 片进行磨轮修整一次。</p> <p>Grinding wheel correction: after the grinding wheel is used for a long time, the surface will be uneven and uneven. In order to ensure the quality of the film, the grinding wheel needs to be calibrated before the grinding wheel is needed. Click the main screen "grinding wheel dressing" device to run automatically. The maximum weight of the trim is 0.5mm, which can be modified for many times. It is recommended that the grinding wheel should be trimmed once every 10-20 films.</p>		

<p>更换磨轮：磨轮在使用至直径 140mm 左右将无法除膜需更换磨轮。更换磨轮时需确定电源气源关闭防止出现误动作。</p> <p>Replace the grinding wheel: the grinding wheel will not be able to remove the grinding wheel until it is about 140mm in diameter. When replacing the grinding wheel, it is necessary to ensure that the power source is closed to prevent misoperation.</p>		
<p>二. 维护保养及注意事项 Maintenance and precautions.</p> <p>1.水气滤气器每班放水一次，每月清洗一次，压力表调到 0.5~0.8Mpa,油雾保证一定油位(N32 机械油)油量每分钟 2~3 滴/min 左右。</p> <p>The water vapor filter is released once per shift. Once a month, the pressure gauge is adjusted to 0.5 ~ 0.8mpa, and the oil mist ensures that the oil level of certain oil level (N32 mechanical oil) is about 2~3 drops per minute.</p> <p>2.检查各机构组件气缸上紧固联接件,防止松动。</p> <p>Check the fastening joints on the cylinder of each body to prevent loosening.</p> <p>3.电气箱内保持清洁干净，严禁非专业人员打开，严禁放置杂物及其他物品。</p> <p>Keep the electric cabinet clean and clean, strictly prohibit the unprofessional personnel to open, and forbid to place sundries and other articles.</p> <p>4.定期检查带料气缸是否松动，传送带是否松动。</p> <p>Periodically check whether the air cylinder is loose and the conveyor belt is loose.</p> <p>5.定期检查各开关性能是否完好。</p> <p>Check the performance of each switch regularly.</p> <p>6.除尘用的高压风机运行时可能产生高温，所以应避免接触其外壳，以免烫伤。同时注意避免风机在狭小，封闭，空气不流通的空间内使用。The high-pressure fan of dust removal may produce high temperature when running, so avoid</p>		

<p>contact with the shell to avoid scalding. At the same time, avoid the fan in the small, closed, airless space for use.</p> <p>7. 风机配备的 FLS 系列过滤器，只能用毛刷清洗，并定期更换新的过滤芯，建议两个月更换一次。</p> <p>The FLS series filter provided by the fan can only be cleaned with the brush, and the new filter element is replaced regularly, and it is suggested to be replaced once every two months.</p> <p>8. 不要随意修改伺服参数。 Do not modify the servo parameters.</p>		
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第三部分：常见故障及排除

Section 3: Common Malfunction and Solution

常见问题 Common malfunction	解决办法： Solution	操作员工签字 Signature of operator	主管签字 Signature of supervisor
<p>1. 不同批次的玻璃除膜时边缘尺寸有误差</p> <p>The edge size of the glass in different batches has an error.</p>	<p>玻璃边缘磨边效果不同时会影响边缘定位效果，（精磨边 和不磨边会有 1-3 毫米的误差）在触摸屏里调整定位参数来改变定位尺寸</p> <p>The effect of edge positioning will be affected when the edge grinding effect of glass edge is different. (1-3 mm error of grinding edge and grinding edge) will adjust the positioning parameters in the touch screen to change the positioning dimension.</p>		
<p>2. 除膜出错</p> <p>Errors when detelting film</p>	<p>1、竖向除膜出错，检查左右定位光电开关前面是否有遮挡物或者开关损坏，检查玻璃是否弯曲变形。The vertical removal of the membrane is wrong, and check whether there is a block or switch in front of the photoelectric switch, and check whether the glass is bent and deformed.</p> <p>2、上边横向除膜出错，检查机头定位光电开关前面是否有遮挡物或者开关损坏，检查</p>		

	<p>玻璃是否弯曲变形。 There is an error in the transverse division of the membrane above, check whether there is a block or switch damage in front of the photoelectric switch, and check whether the glass is bent and deformed.</p> <p>3、下边横向除膜出错，检查机头升降原点开关是否损坏或者是否有遮挡物。 There is an error in the transverse division of the film below, and check whether the switch of the head lift is damaged or whether there is a covering</p>		
<p>3.开机后机器不工作 Machine doesn't work after starting up</p>	<p>1、检查机器运行状态是否正确 Check whether the machine is running correctly. 2、检查机器选择的运行方向是否正确, 踩相对应的脚踏开关。 Check whether the running direction of the machine selection is correct, and step on the corresponding foot switch.</p>		

