



核 汇

真空带式过滤机 安装手册

belt vacuum filter

Installation Manual

湖州核汇机械有限公司

Huzhou Hehui Machinery Co.,Ltd

通讯地址：湖州市方家山二路 59 号 2 幢

联系电话：0572-2756628

传真：0572-2756626

邮 编：313000

E-mail:hehuijx@163.com

安装警告 Installation Warnings

在安装设备前请仔细阅读本手册。Please read this Manual carefully before the installation of the equipment.

• 设备安装前的准备 Before Installation

1、注：设备安装前应认真阅读 DU 胶带机使用说明，同时将随机的资料及技术文件理解后，方可进行设备的安装。1. Note: Please read the User's Manual for DU Rubber Belt Vacuum Filter carefully before attempting to install the equipment. The installation of the equipment can not be performed before understanding thoroughly the references and technical documents attached to the equipment.

人员安全警告 Personnel Safety Warnings

警告：在转动或其他移动部件周围工作时要特别小心以防伤害自己或他人。另外，进入设备区域的任何人必须穿戴如安全眼镜、安全鞋和安全帽等安全用品。

Warning: Take precautions not to incur any injury to yourself or others when working in the proximity of any rotary or moving parts. In addition, anyone entering the equipment area shall wear PPE such as safety goggles, safety boots and hard hat.

警告：异物和手等不要靠近转动部件。如果该设备的保护罩已拆除或损坏，不要操作该设备。
操作该设备之前所有保护和安全装置必须正确安装，而且有效。

Warning: Keep foreign substances and hands away from the rotary parts. Do not operate the equipment in the event that the protection hood of the equipment is already removed or damaged.

Make sure that all the protective and safety devices are correctly installed and in working order before operation.

警告：在进行任何工作或对设备进行维修之前使用手动断路器或断开开关切断电气设备的电源。
将隔离开关锁定和挂上标牌使其不能闭合。

Warning: Before attempting to operate or maintain the equipment, cut off power by using manual breaker or disconnect switch.

Lock the disconnect switch and put up sign to prevent power connection.

警告：熟悉和了解该设备是非常重要的。

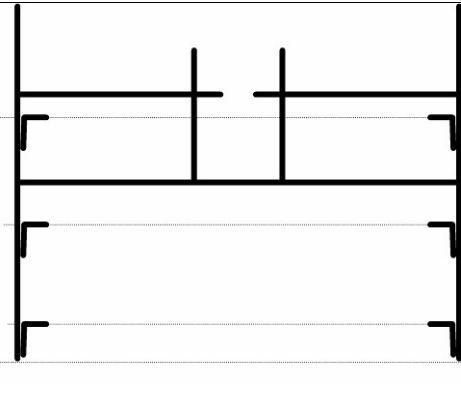
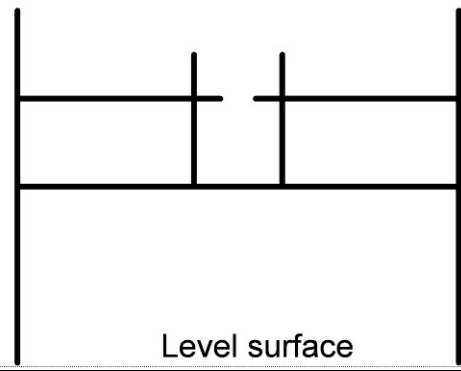
Warning: It is highly essential to learn and understand the equipment.

2、安装公差是用毫米表示的。机架安装找正时满足表 1 规定的公差尺寸范围；整机安装找正时，需满足表 2 规定的公差尺寸范围。2. Mounting tolerance is shown in millimeters. When conducting alignment for the installation of the rails, tolerance as specified in Table 1 should be satisfied.

When conducting alignment for the installation of the whole unit, tolerance as specified in Table 2 should be satisfied.

表 1

Table 1

机器设备从一端到另一端在同一类型水平支撑基础上。 Install the equipment from one end to the other on the same type of horizontal foundation.		Head and tail pulley Belt return rollers Cloth return rollers Level surface	+2 -1
机架上机架，横梁，和底架的差异 Deviation between top carriage rail, cross members and bottom carriage rail		Top carriage rail Cross members bottom carriage rail	+2 -1

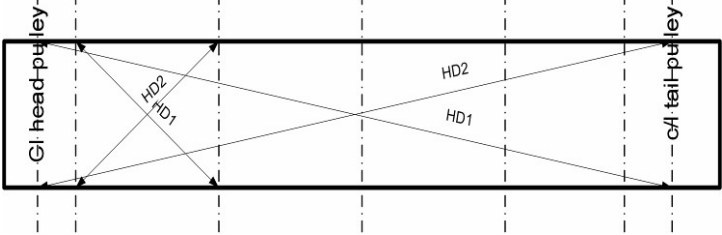
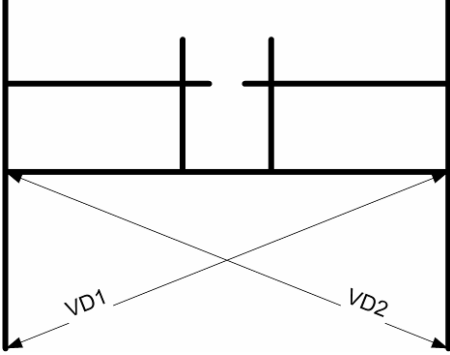
<p>按横梁水平方向或 4 个支撑座水平方向来测量水平对角方形的差异。 Measure and determine the deviation of the diagonal square as per horizontal direction of the cross members or the 4 support bases.</p>		<p>+5 -5</p>
<p>用垂直对角线来测量设备每个部分的方形差异。 Measure and determine the deviation of the squares at each part of the equipment through vertical diagonal lines.</p>		<p>-2 -2</p>

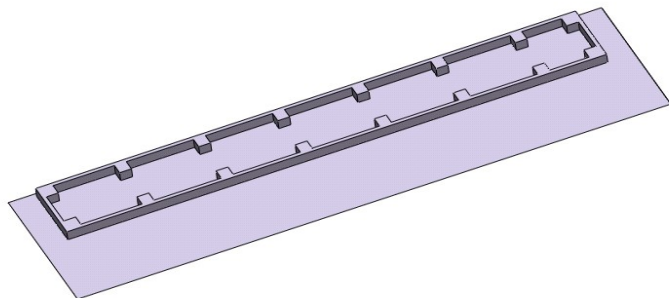
表 2

Table 2

检 验 项 目 Items	检 验 方 法 Method	标 准 Requirement
胶带支承板水平度 Levelness of rubber belt support device	用水平仪在滑台上每隔 1.5 米处测各点值 Check the points of the carriage with spirit level at the interval of 1.5m.	$\leq 3\text{mm}$
真空盒滑台的水平度（纵向） Levelness of vacuum box carriage (vertically)	用水平仪在滑台上每隔 1.5 米处测各点值 Check the points of the carriage with spirit level at the interval of 1.5m.	$\leq 1.5\text{mm}$
驱动辊与各改向辊间的平行度 Parallelism between the driving roller and all the return rollers	用弦线卷尺法按拉线法检测 Check with string tape by wire-pulling method.	$\pm 1.2\text{mm}$
真空盒滑台中心、支承板中心和机架中心之间的公差值 Tolerance between vacuum box carriage center, support device center and rail center	用钢尺按每隔 1.5 米处测量各点距离 Check the points with steel ruler at the interval of 1.5m.	$\leq 1.5\text{mm}$
真空盒升降基准与真空箱顶面的平行度 Parallelism between the lifting base line of the vacuum box and top surface of vacuum chamber	用弦线卷尺法按拉线法检测 Check with string tape by wire-pulling method.	$\pm 0.5\text{mm}$
相邻两真空盒的高低差 Elevation difference between the neighboring vacuum boxes	用划线高度尺检测 Check with height gauge.	$\leq \pm 0.5\text{mm}$

- 设备基础找平 Leveling of Ground for the Equipment

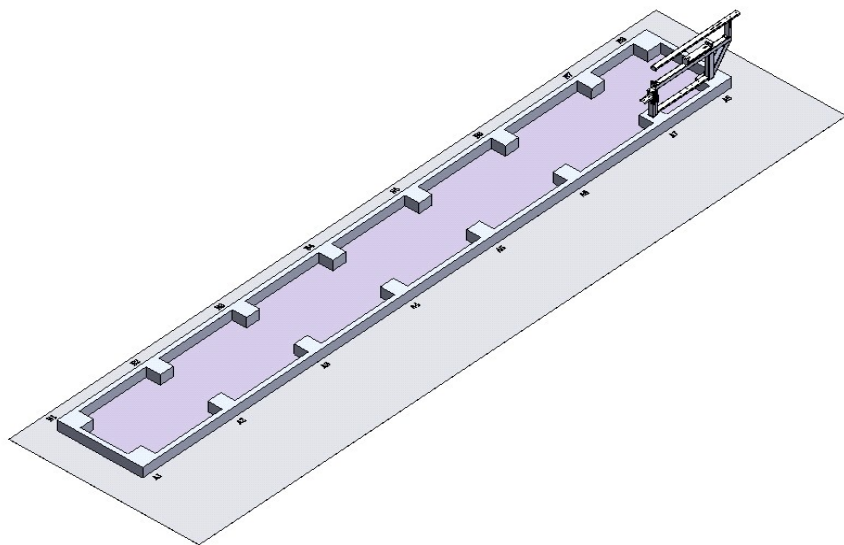
设备安装前应对先按照设备图纸要求将设备基础做好，基础支墩的各平面必须进行找平，公差要求见表 1。Prepare the ground for the equipment in accordance with the requirements in drawings before the installation of the equipment. Planes for the buttresses must be leveled, allowing for the tolerance specified in Table 1.



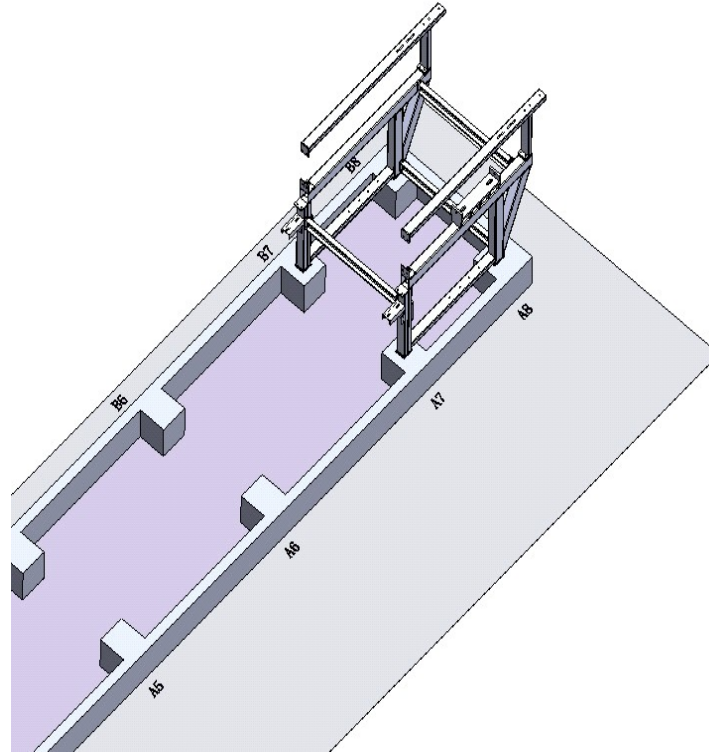
- 下部机架安装 Installation of Bottom Carriage Rail

- 头架安装 Installation of Head Rail

A、将头部机架—正向放置于前端右支墩上，如图 2 示，并找正 A. Place Head Rail-Front on the right buttress at the front, as shown in Fig. 2, and make alignment.



B、将头部机架一反向放置于前端左支墩上，如图 3 示，并与头部机架一正向对齐、找正。见图 3 B. Place Head Rail-Back on the left buttress at the front, as shown in Fig. 3, and make alignment with Head Rail-Front. See Fig. 3.

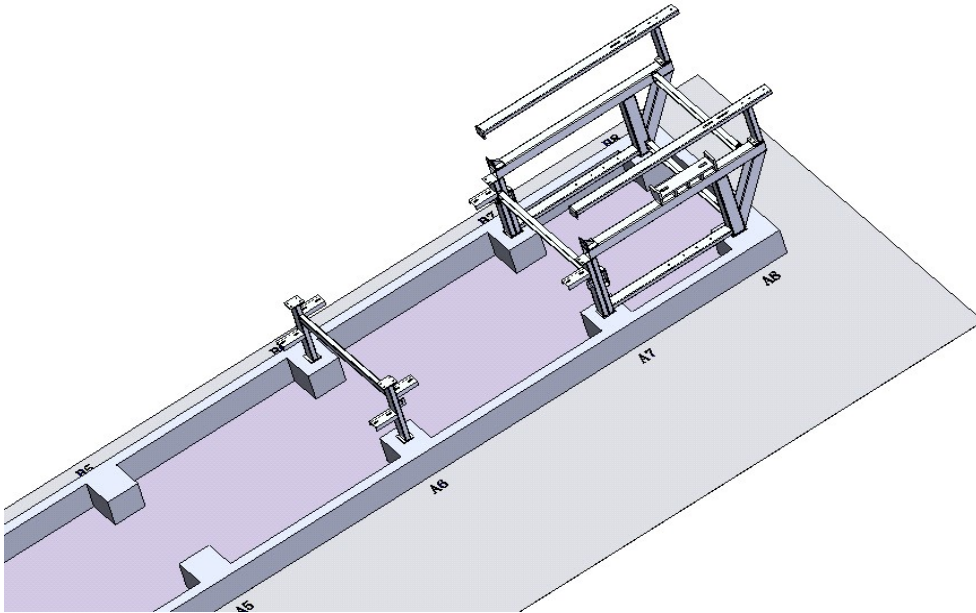


C、将机架联接槽钢通过螺栓将头部机架一正及头部机架一反联接。见上图 3（注意头部机架联接槽钢仅联接处钻孔，其它处并未钻孔）。C. Connect Head Rail-Front with the Head Rail-Back by using pulley connection channel beam and bolts. See above Fig. 3 (Note that holes are spotted only at the connecting areas at pulley connection channel beam.)

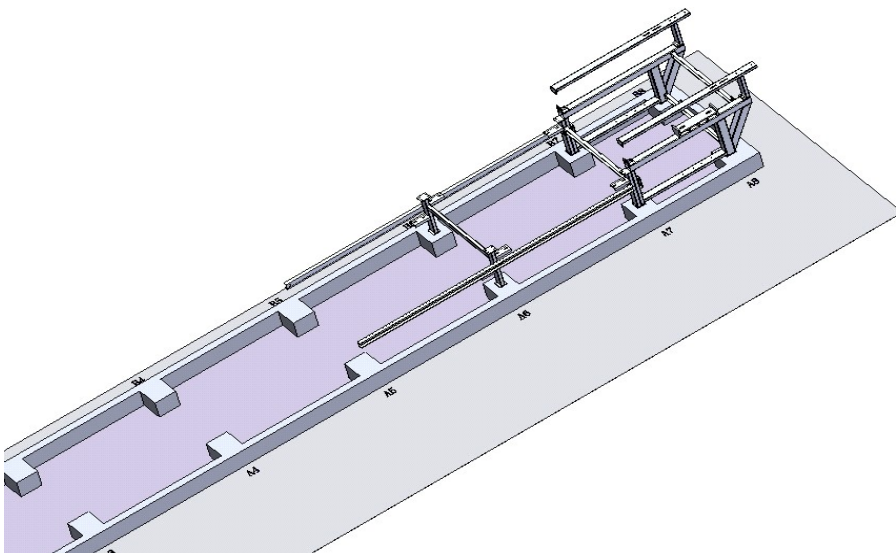
D、将头部机架找平，找正，公差见表 1。D. Make level and alignment for the head rail, allowing for the tolerance specified in Table 1.

• 中间下机架安装 Installation of Central Bottom Carriage Rail

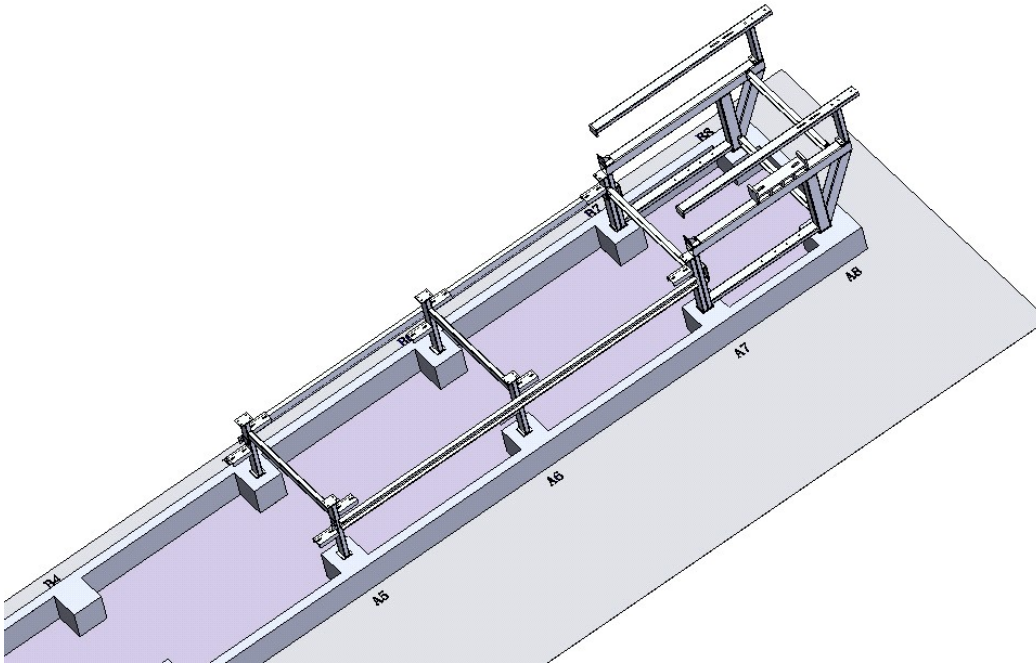
- 将中间下机架放置于头部机架相邻支墩上，如图 4 示 Place Central Bottom Carriage Rail on the neighboring buttresses of Head Rail, as shown in Fig. 4.



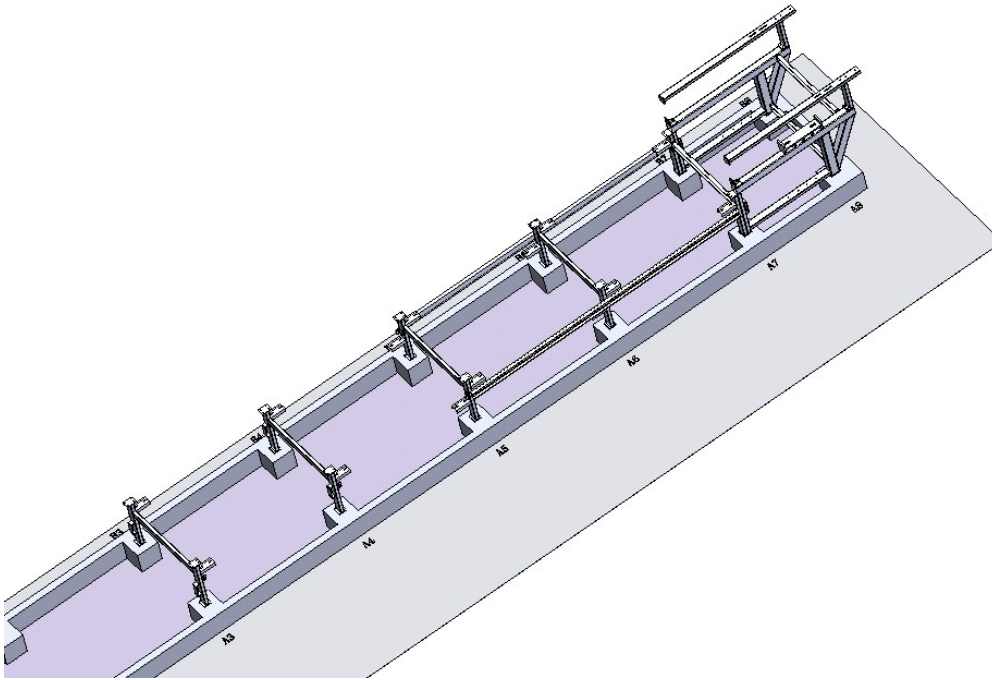
- 用下机架侧拉槽钢左及下机架侧拉槽钢右分别将头部机架与中间下机架左右联接，采用螺栓固定，如图 5 示 Connect Head Rail with Central Bottom Carriage Rail by using the left and right side channel beams for Bottom Carriage Rail and fasten with bolts, as shown in Fig. 5.



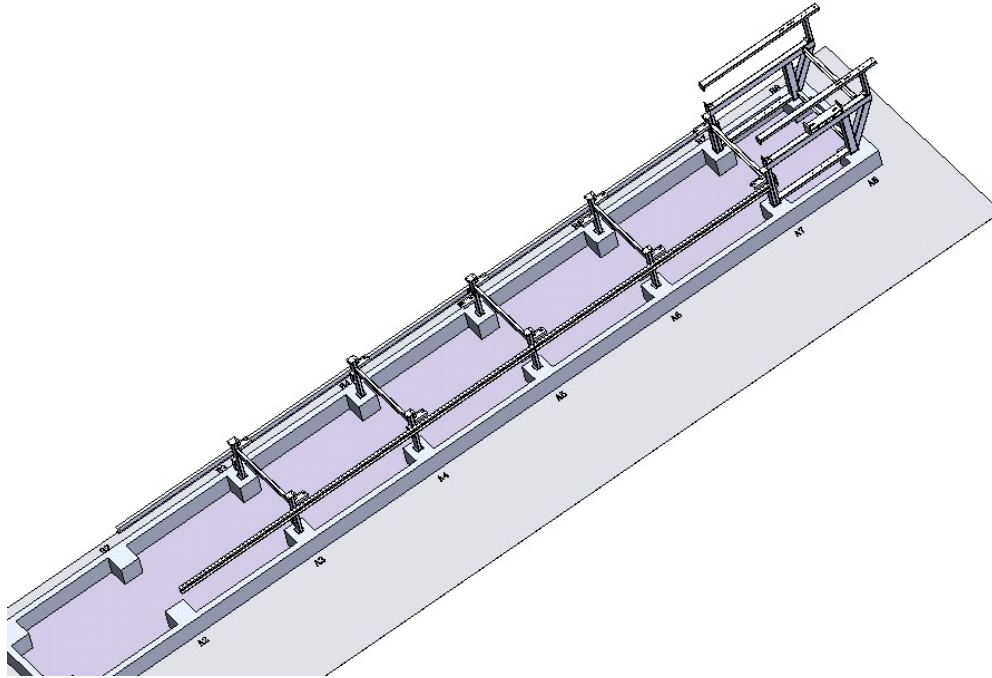
- 将另一中间下机架安放在相邻支墩上，并与下机架侧拉槽钢左及右相联接，采用螺栓联接，如图 6。Place the other Central Bottom Carriage Rail on the neighboring buttresses, and connect it with the left and right side channel beams for Bottom Carriage Rail. Fasten with bolts, as shown in Fig. 6.



- 依次将中间下机架吊至相应支墩上，如图 7。Lift the Central Bottom Carriage Rail in the right order onto the corresponding buttresses, as in Fig. 7.



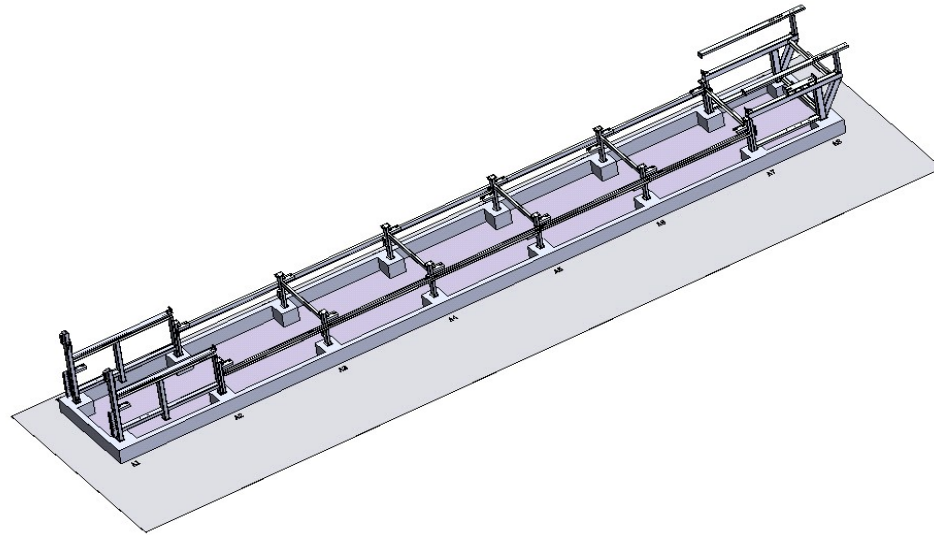
- 用机架下侧拉槽钢将中间下机架联接（注意机架下侧拉槽钢上固定总管的孔位置）。采用螺栓联接。见图 8。Make connection of Central Bottom Carriage Rail with side channel beams under bottom carriage rail. (Note the locations of the holes for fastening the main pipelines on the side channel beam under bottom carriage rail). Fasten with bolts. See Fig. 8.



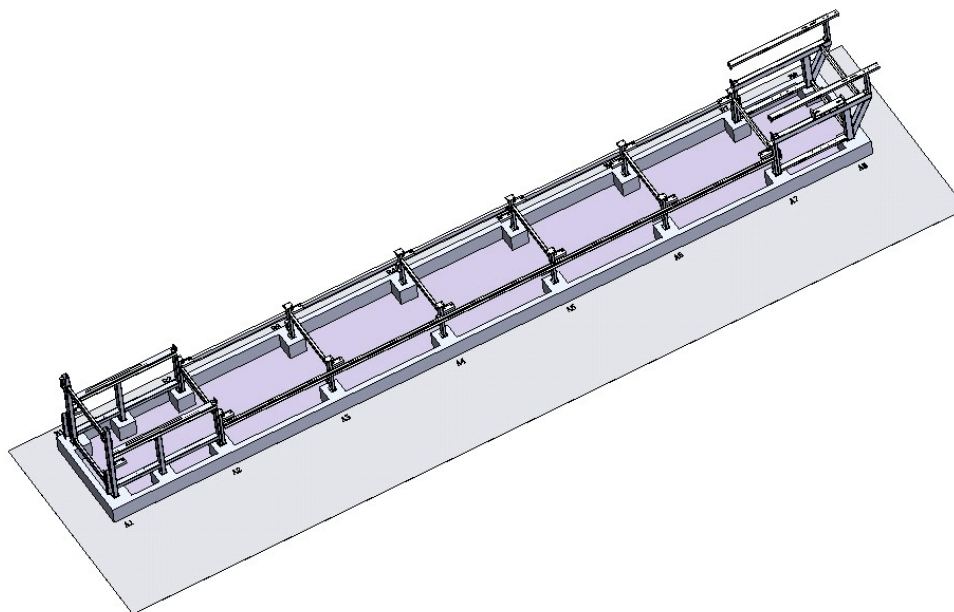
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- 尾部机架安装 **Installation of Tail Rail**

- 将尾部机架—左及尾部机架—右分别吊置在支墩上，并与机架下侧拉槽钢左及机架下侧拉槽钢右相联，采用螺栓联接。见图 9. Lift Tail Rail-Left and Tail Rail-Right onto the buttresses, and connect them with Side Channel Beam-Right and Side Channel Beam-Left under the rail. Fasten with bolts. See Fig. 9.



- 用机架联接槽钢通过螺栓将尾部机架一左及尾部机架一右联接，注意尾部机架后下机架联接槽钢除联接孔外还有接水盘固定孔，其它的机架联接槽钢仅有联接固定孔，见图 10. Connect Tail Rail-Left with Tail Rail-Right by using the connection channel beam of the rail. Note that fastening holes for liquid tray are found on connection channel beam behind Tail Rail apart from the connection holes for the channel beam. In other connection channel beams for the rail, only connection holes can be found. See Fig. 10.



- 机架找平找正 **Leveling and Alignment for the Rail**

- 将已安装的下机架各水平面进行找平，找平公差为表 1 规定。Make level for the installed Bottom Carriage Rail, allowing for the tolerance as specified in Table 1.
- 对已安装的下机架的宽度进行找正（建议采用拉直线法），找平公差为表 1 规定。Conduct alignment for the installed Bottom Carriage Rail (wire-pulling method is recommended), allowing for the tolerance as specified in Table 1.
- 对已安装的下机架对角线进行找正（采用直尺对要求的对角线进行测量），找正公差为表 1 规定。Conduct diagonal alignment for the installed Bottom Carriage Rail (check the diagonal lines with a ruler), allowing for the tolerance as specified in Table 1.


• 辊子组装 Roller Assembly

注：如果出厂时，轴承及座已安装，可以省略此项。**Note: In case the bearings and base are already assembled when leaving factory, this step can be left out.**

开始工作前，请仔细阅读使用说明的全部内容。使用说明中包含了多种可选的工具和测量方法。Please read the whole Manual carefully before starting the work. Note that various tools and measurement methods are included in the Manual.

插图内的轴承大都不是按比例和实际设计。Most of the bearings in the figures are not designed as per scale or actual circumstances.

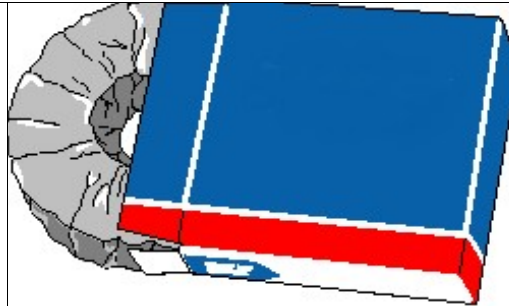
选用使用说明内所建议的工具时，请根据实际使用的轴承和其他相关组件的尺寸核查其可用性。Please use the tools as specified in the Manual. Please check the effectiveness of the tools according to the dimensions of the bearings and other parts in actual use.

 滚动轴承的安装和拆卸有时会涉及到；重物的搬动、工具和其他设备的使用或高压油的使用。为避免发生事故、人体受到伤害或财产损失，请小心遵守有关说明。The assembly and demounting of the rotary bearings may sometimes incur the transporting of heavy objects and the using of tools, other equipment or high pressure oil. To prevent accidents, physical injuries or damage of properties, please follow the Manual closely.

注意事项 Precautions

在清洁的环境下安装轴承。检查轴承箱、轴和轴承的其他相关组件以确保其清洁。Install the bearings in a clean environment. Check the bearing housing, shaft and other parts to make sure they are clean.

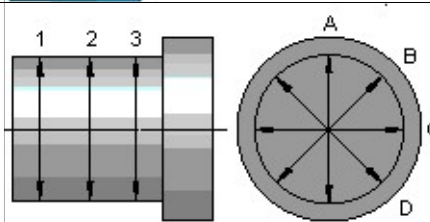
轴承应留在原有包装中直到安装前的一刻，以防止被污染。To prevent any possible pollution, keep the bearings in the original packages until the last minute before installation.



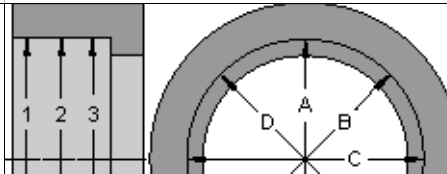
应检查所有与轴承接触的组件的尺寸和形状公差。Check the tolerance for dimensions and shape of all the components contacting the bearings.



圆柱形轴颈的直径，通常使用千分尺测量各三个平面的四个点。测量记录的表格可在[这里](#)获得。适当填写测量记录并存档有助以后的跟踪工作。To check the diameter of the cylinder shaft neck, use micrometer to measure four points at the three planes respectively. Tables recording the measures can be obtained here. Filling in the measurements properly and filing the documents can be of help to the follow-up work.



圆柱形轴承箱的内孔直径，通常使用内量规测量各三个平面的四个点。测量记录的表格可在[这里](#)获得。适当填写测量记录并存档有助以后的跟踪工作。To check the inner diameter of the cylinder shaft, use micrometer to measure four points at the three planes respectively. Tables recording the measures can be obtained here. Filling in the measurements properly and filing the documents can be of help to the follow-up work.



- 自制轴承座改向辊轴承安装 Assembly of Return Roller Bearing for Customized Bearing Base

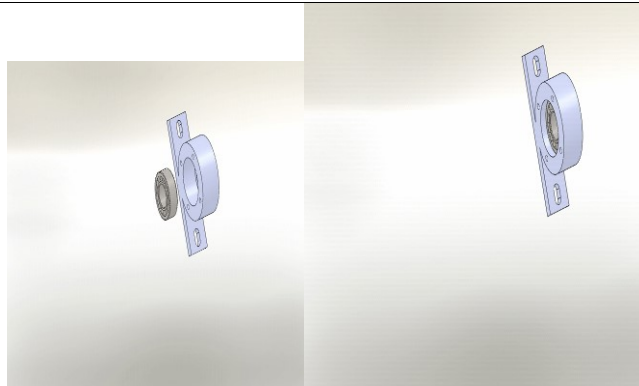
安装程序 Procedures

- 擦去轴承内孔和外圆表面的防锈剂。Wipe off the anti-rust agent on the inner holes and outer surface of the bearing.



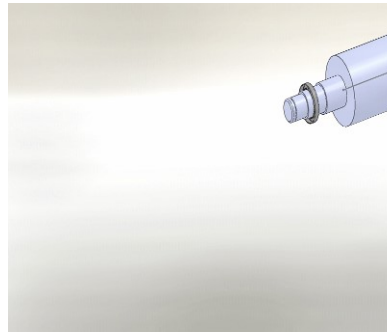
若轴承使用脂润滑并在极高或极低的温度下使用，或润滑脂与防锈剂不兼容，需要小心清洗并凉干轴承。In case grease lubrication is applied to the bearing to be used in extremely high or low temperatures, or if the grease doesn't work well with the anti-rust agent, wash it away carefully and air the bearing dry.

- 用矿物油轻微润滑轴承的外孔。Slightly lubricate the outer holes of the bearing with mineral oil.
- 将轴承装入轴承座 Set the bearing into the base.

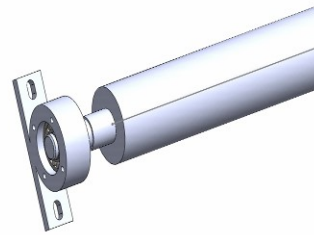


注：轴承装入轴承座时需用力直接压入，必要时需对轴承座加温，不允许敲击装入。Note: Apply pressure to push the bearing in the base at assembly. Heat the bearing base if necessary. Do not knock the bearing in.

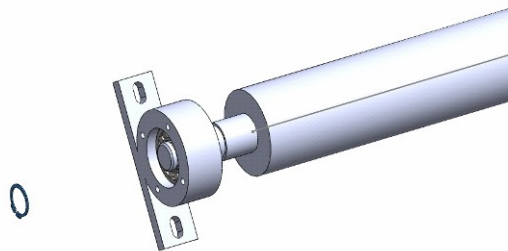
- 将骨架密封圈装入轴位。（尽量靠近辊筒） Place the sealer on the shaft (as close to the roller as possible).

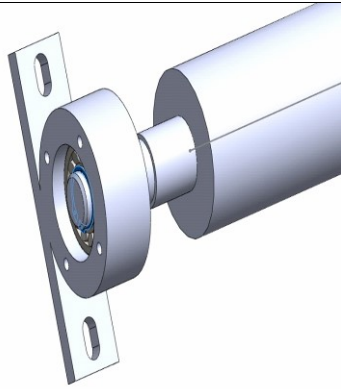


- 将轴承及轴承座加热至 120 度，然后迅速将其安装到轴肩处（注意温度较高，小心烫手，建议配带隔热手套 Heat the bearing and the base to 120 degrees centigrade and rapidly install them on the shaft shoulder. **(To avoid burning of hands at high temperature, oven gloves are recommended.)**

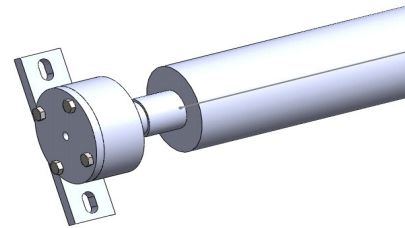


- 待轴承及轴承座冷却后，用卡簧钳将轴用弹性挡圈装入轴上，并将其推至卡槽内，并向轴承内注入适量润滑脂。**After the bearing and base cool off, mount the snap ring on the shaft with snap ring pliers. Push it into the groove and apply lubricant grease in proper amount.**

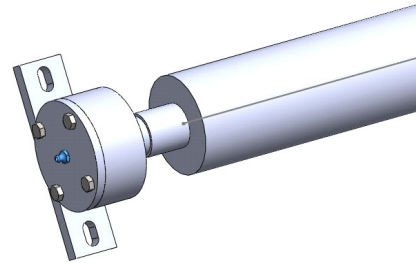




- 将轴承座端盖固定于轴承座上，并用螺栓进行固定。Set the top cover of the bearing base and fasten with bolts.



- 将注油杯安装于轴承端盖上。Install the filling cup on the top cover of the shaft.




- 将辊筒另一端按照上述安装步骤对轴承及轴承座等部件进行安装，安装完毕后，便完成了自制轴承座辊筒的安装。Install the bearing and base at the other end of the roller by above installation steps to complete the process for the assembly of a customized bearing base roller.



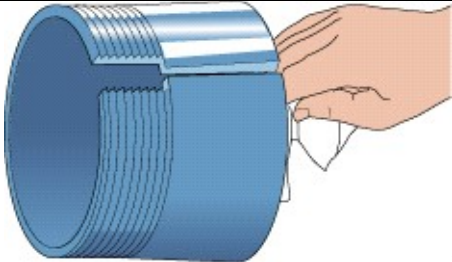
注：自制轴承座辊筒包括改向辊、螺纹辊、从动辊等。Note: The customized bearing base roller is made up of return roller, thread roller and slave roller.

- 带轴承锁紧套的改向辊安装 Installation of Return Roller with Bearing Lock Set



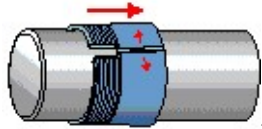
- 擦去轴承内孔和外圆表面的防锈剂。Wipe off the anti-rust agent on the inner holes and outer surface of the bearing.

若轴承使用脂润滑并在极高或极低的温度下使用，或润滑脂与防锈剂不兼容，需要小心清洗并凉干轴承。 In case grease lubrication is applied to the bearing to be used in extremely high or low temperatures, or if the grease doesn't work well with the anti-rust agent, wash it away carefully and air the bearing dry.

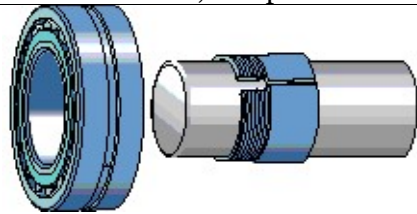


- 擦去轴套表面的防锈剂。Wipe off the anti-rust agent on the surface of the shaft sleeve.

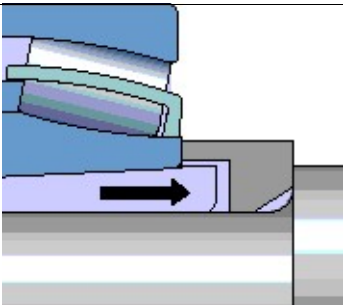
- 用矿物油轻微润滑轴承的内孔。 Slightly lubricate the outer holes of the bearing with mineral oil.




- 使用螺丝起子或其他合适工具插入狭缝以弄开紧定套，并将其推到轴上的正确位置。 Open the lock set by inserting a screw-driver or other suitable tool into the slit, and push it to the proper position at the shaft.



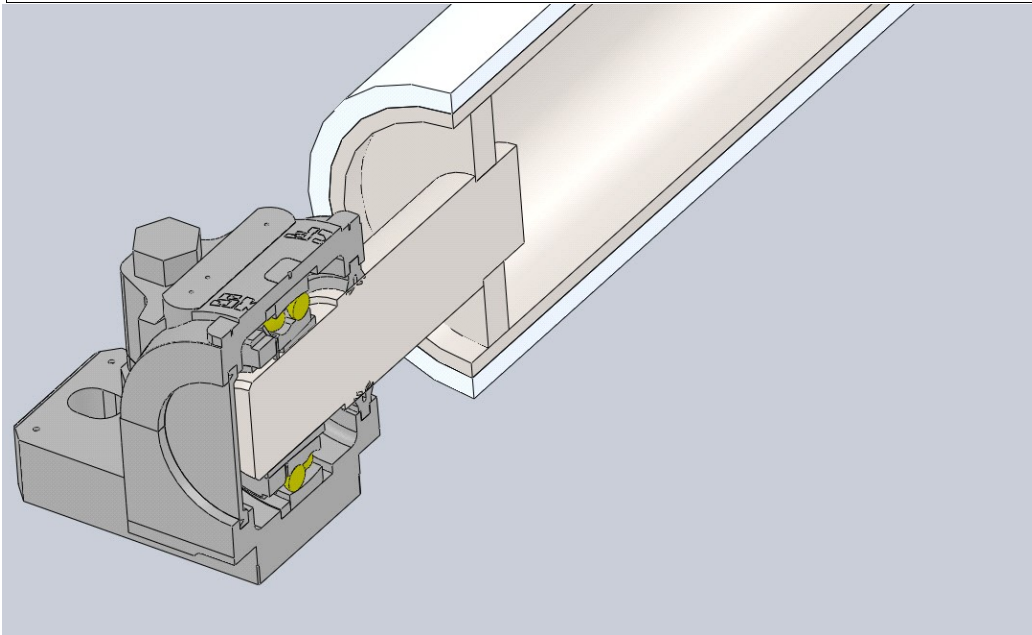
- 将轴承装进轴套。 Set the bearing in the shaft sleeve.

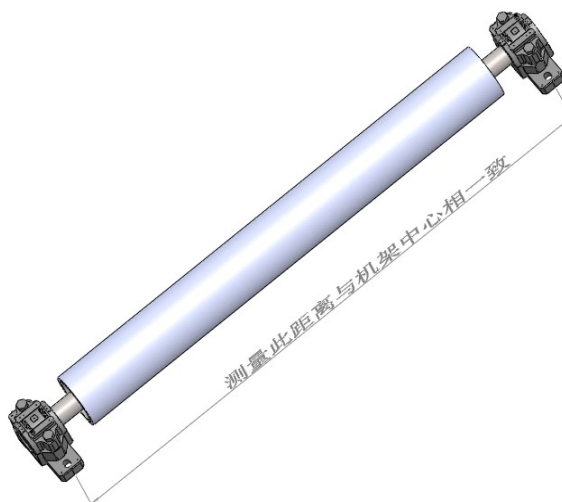


- 轴承配以紧定套安装在靠轴肩的位置时，需要一个轴肩套。轴肩套的设计必须留有足够的空间予紧定套在其下移动；轴承需要紧靠轴肩套。需要的拆卸距离比安装时的推进距离要大。 A shaft sleeve set is required when installing the bearing with lock set close to the position of the shaft sleeve. The shaft sleeve set is so designed that enough space is reserved to allow the movement of lock set under it. The bearing should be close to the shaft sleeve set. The demounting distance is greater than the forward distance at installation.

<ul style="list-style-type: none"> •  使用钩形扳手以拧紧螺母 Fasten the screw nut with claw wrench 安装螺母时，有倒角的一面应朝向轴承。但不要安装锁定垫圈。 When installing the screw nut, face the chamfered side to the bearing. Do not install the lock washer.
<div data-bbox="835 355 1189 507" data-label="Image"> </div> <p>拧紧螺母直到轴承推进到正确的位置。正确位置见下。 Fasten the screw nut until it reaches the proper position as shown below.</p>
<p>利用锁紧角度安装 Install by adopting lock angle 仅用手力拧紧螺母，使轴承和轴有适当接触。 Fasten the screw nut only by hand to allow appropriate contact between the bearing and the shaft.</p>
<div data-bbox="197 659 439 879" data-label="Image"> </div> <p>若使用公制螺纹的的紧定套，利用扳手或其他合适工具，以 110° 锁紧角度来锁定螺母。仅适用于公制螺母。 In case lock set with metric thread is used, lock the screw nut by turning 110° with a wrench or other suitable tool. This applies to metric thread only. 若使用英制螺纹的紧定套，利用扳手或其他合适工具，以 155° 锁紧角度来锁定螺母。仅适用于英制螺母。 In case lock set with Inch thread is used, lock the screw nut by turning 155° with a wrench or other suitable tool. This applies to Inch thread only. 将扳手放在与其原来位置成 180° 的位置。使用锤子轻敲扳手，稍再拧紧螺母。如轴承在轴上有扭曲，将得到校正。 Place the wrench in the position at 180° with its original position. Knock softly with a hammer and fasten the screw nut. In case bearing displacement on the shaft is found, it shall be corrected.</p> <ul style="list-style-type: none"> • 向轴承内注入适量润滑脂 Fill lubricant grease of proper amount into the bearing. • 将轴承座密封件及端盖安装于轴承座底座上，然后与改向辊上的轴承配合安装，然后将密封件的下部及轴承座上部一起与轴承座底座安装成一体。（注意在此要用机架中心的长度测量轴承座中心，使两者长度相同，否则要调整轴承座位置） Install the

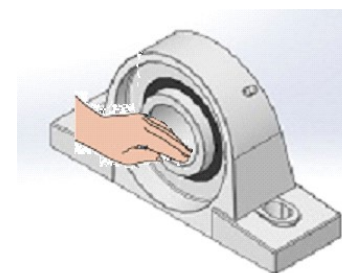
shaft sealer and top cover on the bearing base. Make sure of its coordination with the return roller. Combine the bottom of the sealer and top of the bearing base. (Remember to check if the center of the bearing base is as long as the center of the rail. If not, the position of the bearing base shall be adjusted.)



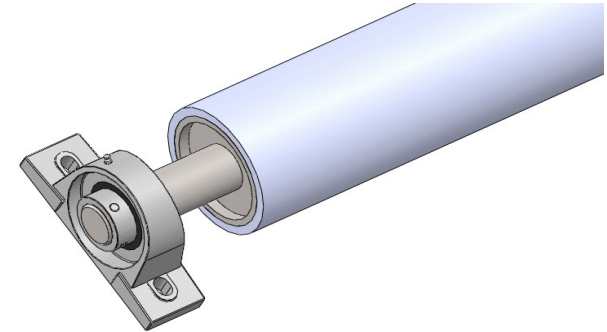


测量此距离与机架中心相一致 Check if this distance is the same as rail center.

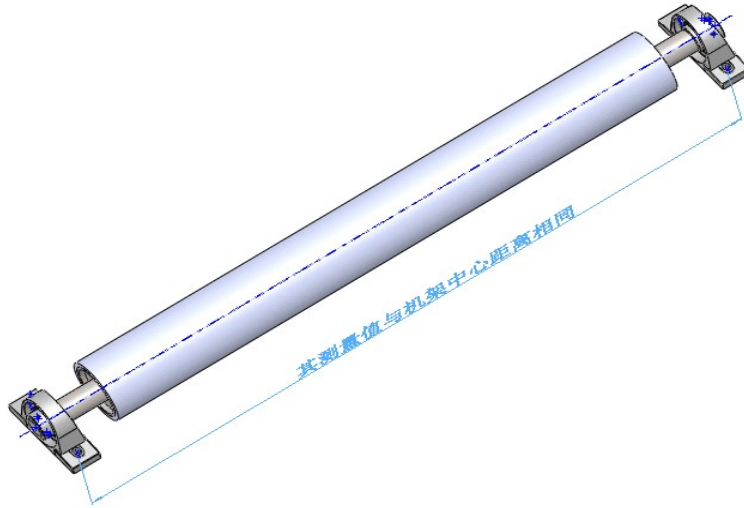
- **UCP 轴承座改向辊安装 Installation of Return Roller for UCP Bearing Base**
- 擦去轴承内孔和外圆表面的防锈剂。Wipe off the anti-rust agent on the inner holes and outer surface of the bearing.



- 用矿物油轻微润滑轴承的内孔。Slightly lubricate the outer holes of the bearing with mineral oil.
- 将轴承套入轴颈 Set the bearing into the shaft neck.

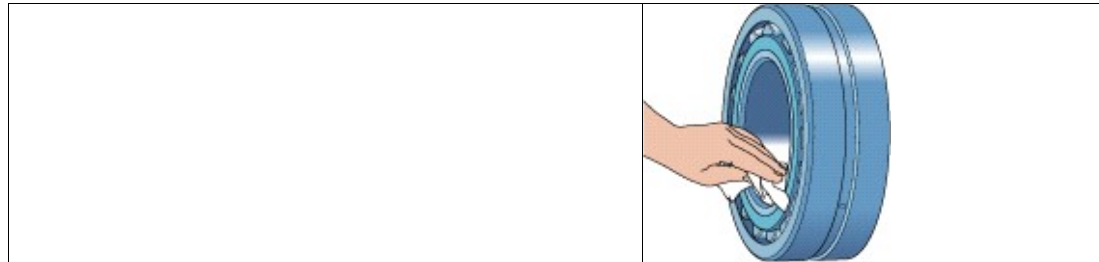


- 将另一轴承套入改向辊另一端，并测量其中心距，其值与机架中心尺寸相同。然后将平头紧定螺钉拧入内圈，将轴承座固定。Set another bearing into the other end of the return roller. Check the central distance and make sure it is the same as central dimensions of the rail. Then insert the flat set screw into the inner ring to fasten the bearing base.

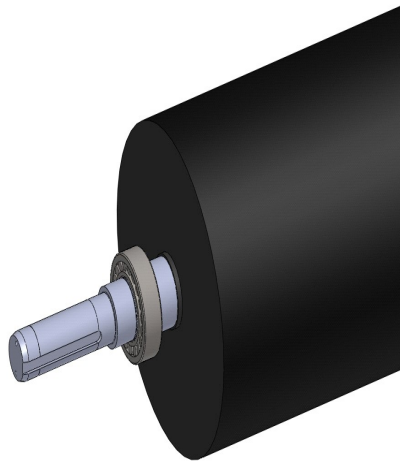


其测量值与机架中心距离相同 The distance is the same as central dimensions of the rail.

- 驱动辊组装 Assembly of Driving Roller
- 驱动辊短轴头擦干净，并对其进行测量公差。Clean the short shaft head of the driving roller and measure the tolerance.



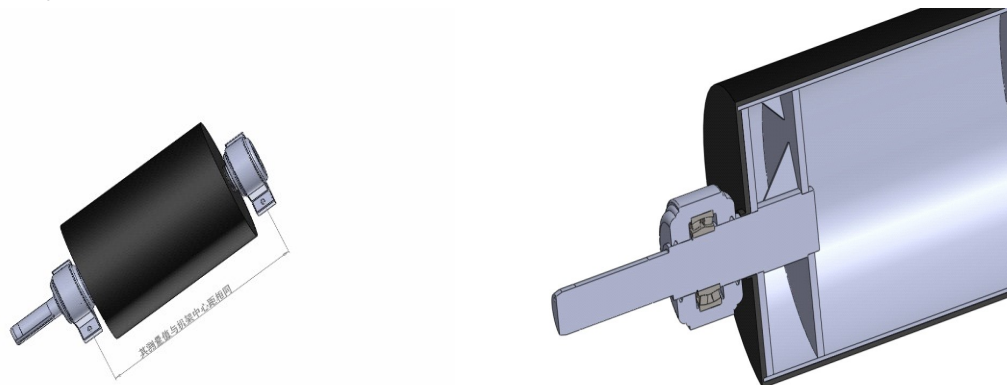
- 擦去轴承内孔和外圆表面的防锈剂。Wipe off the anti-rust agent on the inner holes and outer surface of the bearing.
- 将轴承加热到 120 度，然后将其推入至轴肩位置。Heat the bearing to 120 degrees centigrade and push it onto the shaft



shoulder.

- 待轴承冷却后，将轴用弹性挡圈安装到卡圈内。并对轴承涂润滑脂。After the bearing cools off, mount the snap ring on the shaft. Apply lubricant grease.
- 将轴承座密封件及端盖安装于轴承座底座上，然后与主动辊上的轴承配合安装，然后将密封件的下部及轴承座上部一起与轴承座底座安装成一体。
(注意在此要用机架中心的长度测量轴承座中心，使两者长度相同，否则要调整轴承座位置) Install the shaft sealer and top cover on the bearing base. Make sure of its coordination with the bearing on the driving roller. Mount the bottom of the sealer and top of the bearing to the bearing base. (Remember to check if the central distance of the bearing base is the same as the central distance of the rail. If not, the position of the bearing base

should be adjusted.)

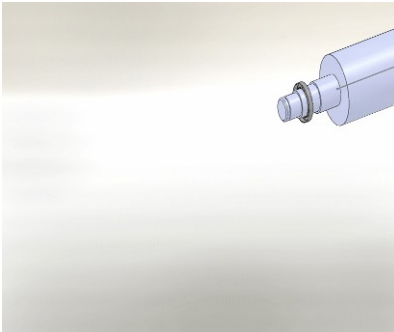


其测量值与机架中心距离相同 The distance is the same as central dimensions of the rail.

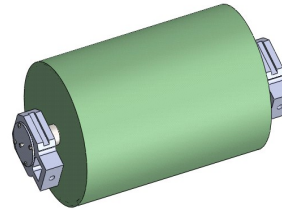
• 从动辊安装 Installation of Slave Roller

从动辊安装参照自制轴承座改向辊安装 For the installation of the slave roller, refer to the installation procedures for return roller of customized bearing base.

安装程序 Installation Procedures	
<ul style="list-style-type: none"> 擦去轴承内孔和外圆表面的防锈剂。 Wipe off the anti-rust agent on the inner holes and outer surface of the bearing. 	

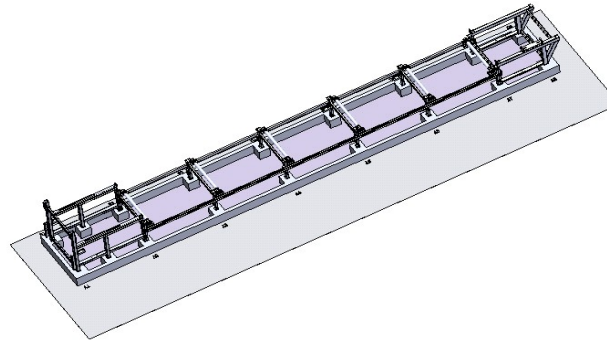
<p>若轴承使用脂润滑并在极高或极低的温度下使用，或润滑脂与防锈剂不兼容，需要小心清洗并凉干轴承。In case lubricant grease is applied to the bearing to be used in extremely high or low temperatures, or if the lubricant grease doesn't work well with the anti-rust agent, wash it off carefully and air the bearing dry.</p>	
<ul style="list-style-type: none">• 用矿物油轻微润滑轴承的外孔。Slightly lubricate the outer holes of the bearing with mineral oil.• 将轴承装入轴承座 Set the bearing into the bearing base. <p>注：轴承装入轴承座时需用压力直接压入，必要时需对轴承座加温，不允许敲击装入。 Note: Apply pressure to push the bearing in the base at assembly. Heat the bearing base if necessary. Do not knock the bearing in.</p> <ul style="list-style-type: none">• 将骨架密封圈装入轴位。（尽量靠近辊筒）Place the sealer on the shaft (as close to the roller as possible).	
	
<ul style="list-style-type: none">• 将轴承及轴承座加热至 120 度，然后迅速将其安装到轴肩处（注意温度较高，小心烫手，建议配带隔热手套 Heat the bearing and the base to 120 degrees centigrade and rapidly install them on the shaft shoulder. (To avoid burning of hands at high temperature, oven gloves are recommended.)• 待轴承及轴承座冷却后，用卡簧钳将轴用弹性挡圈装入轴上，并将其推至卡槽内，并向轴承内注入适量润滑脂。After the bearing and base cool off, mount the snap ring on the shaft with snap ring pliers. Push it into the groove and apply lubricant grease in proper amount.	

- 将轴承座端盖固定于轴承座上，并用螺栓进行固定。Set the top cover of the bearing base and fasten with bolts.
- 将注油杯安装于轴承端盖上。Install the filling cup on the top cover of the shaft.
- 将辊筒另一端按照上述安装步骤对轴承及轴承座等部件进行安装，安装完毕后，便完成了自制轴承座辊筒的安装。Install the bearing and base on the other end of the roller by the above installation steps to complete the process for the assembly of a customized bearing base roller.



• 胶带安装 Installation of Rubber Belt

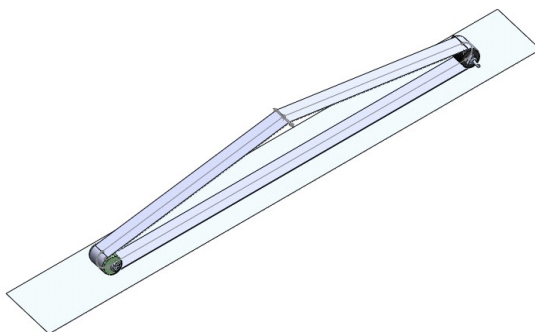
- 依次将已经组装好的胶带下托辊安装于机架上，并用螺栓进行固定。Set the assembled lower support roller for the rubber belt on the rail in the correct order and fasten with bolts.



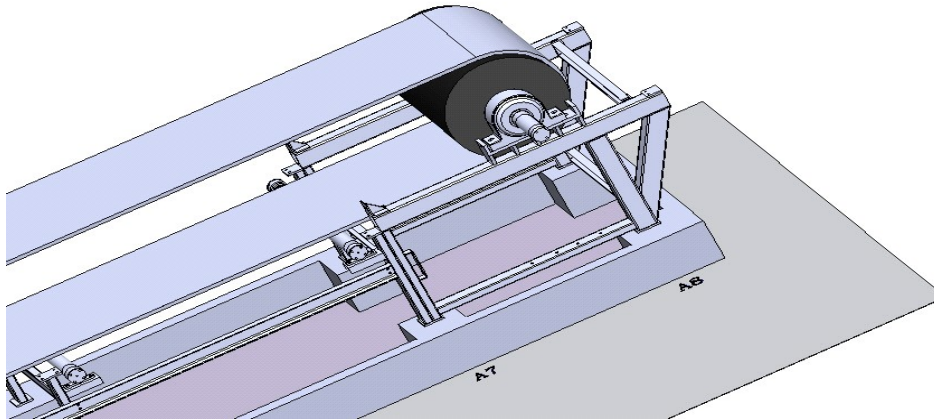
- 利用机架打平台（若条件允许，可以不打平台） Use the rail for planishing. (If conditions allow, planishing is not required.)
- 将胶带平铺于平台或地面上 Spread the rubber belt on a platform or on the ground.



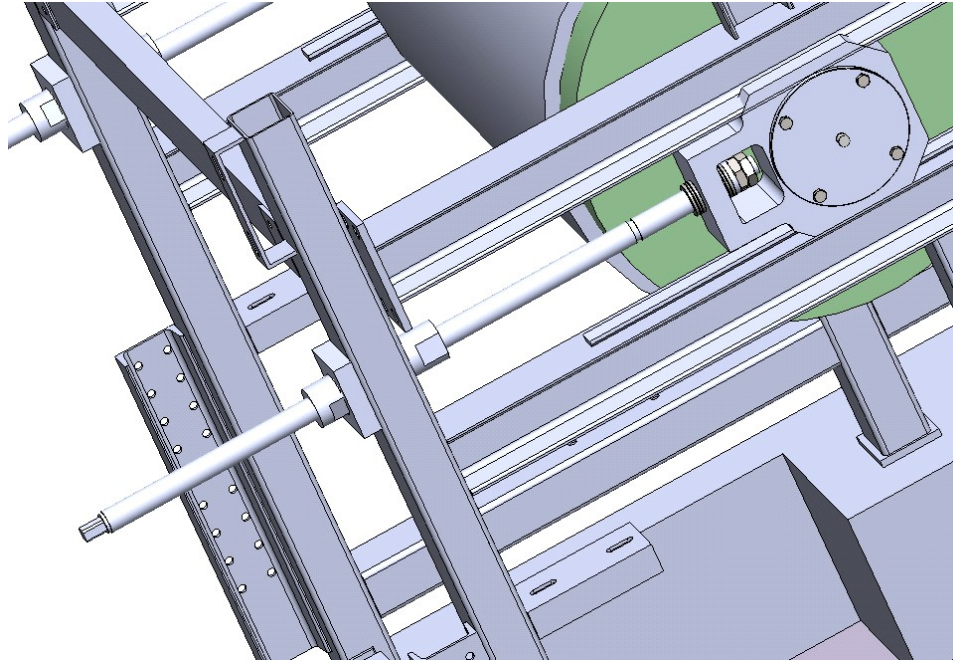
- 将一钢管从胶带中间穿过，将胶带吊起。Run a steel tube across the middle part of the rubber belt and lift it up.
- 将从动辊及驱动辊穿在胶带中间。Set the slave roller and the driving roller inside the rubber belt.



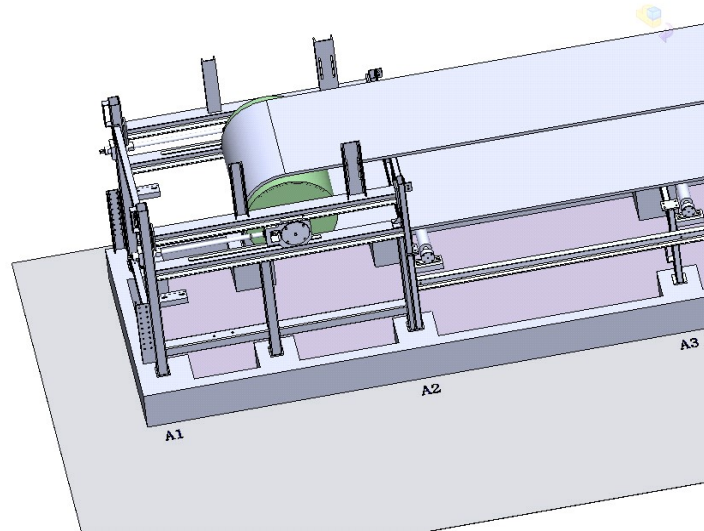
- 将驱动动辊吊至头部机架驱动辊轴承座支座上，并用螺栓固定。Lift the driving roller onto the bearing base for driving roller at the head rail and fasten with bolts.



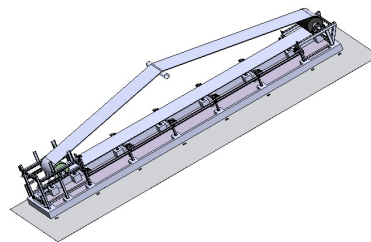
- 将从动辊吊至尾部机架上，并使轴承座滑槽对准尾部机架滑轨。Lift the slave roller to the tail rail and align the groove of bearing base with tail slide rail.
- 将从动辊调整杆与从动辊轴承座联接，并通过尾架孔与尾架进行联接。Connect the adjusting rod of the slave roller with the bearing base of the slave roller. Connect with tail rail through the holes in the tail rail.



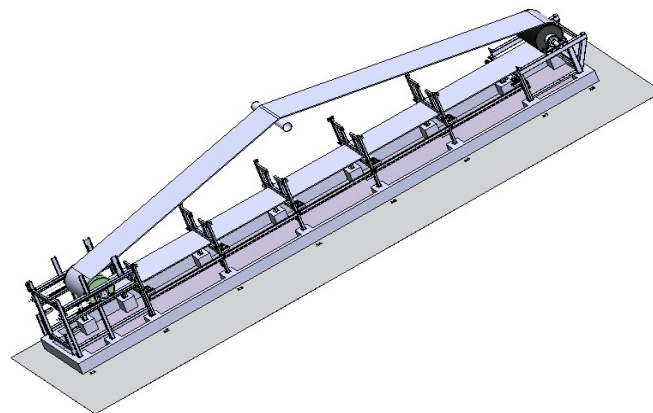
- 将尾端上机架与尾架用螺栓进行联接，并将从动滑轨固定梁与尾部机架及尾端上机架进行联接。Connect the top carriage rail with tail rail by using bolts, and then connect the channel beam of the slave slide rail with tail rail and top carriage rail.



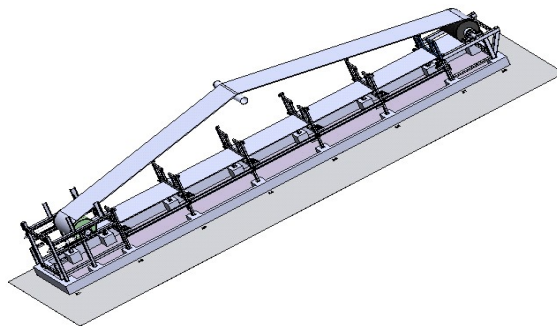
- 将胶带中间吊起 Lift the rubber belt from the middle part.



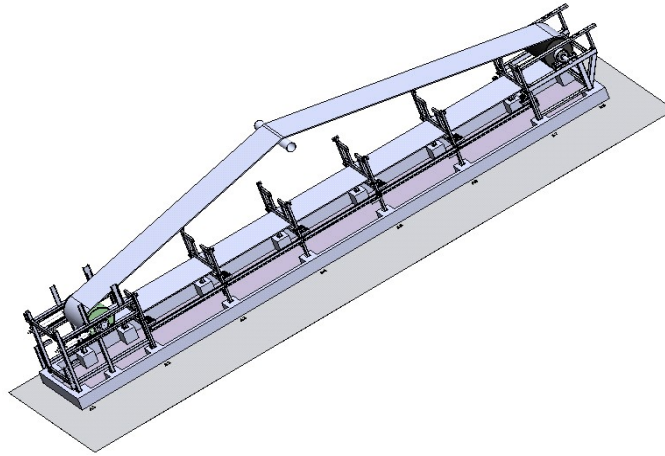
- 将中间上架依次与中间下机架对齐安装并用找正，然后螺栓联接固定。 Align and install the central top carriage rail and central bottom carriage rail in proper order and fasten with bolts.



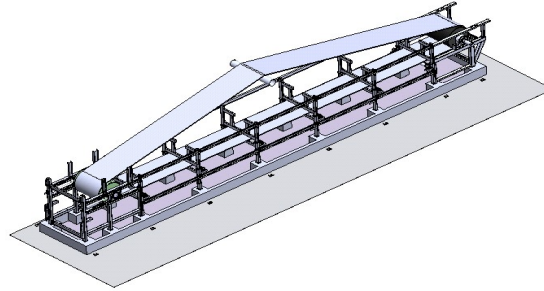
- 将头端上机架与头部机架对齐安装并找正，然后用螺栓进行联接。Align the top carriage rail at the head with head rail and fasten with bolts.



- 并将头部机架的上部分与头部机架及头端上机架相联。Connect the top part of the head rail with head rail and top carriage rail at the head.

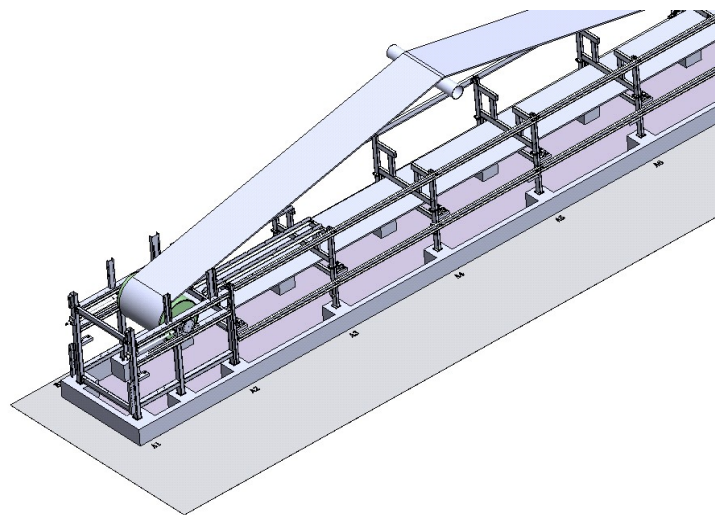


- 将上侧拉槽钢及中侧拉槽钢（若有）分别与上机架相联，并找正上机架，然后用螺栓固定。Connect the Top Side Channel Beam and Central Side Channel Beam (if available) respectively with Top Carriage Rail. Mount the Top Carriage Rail after alignment and fasten with bolts.

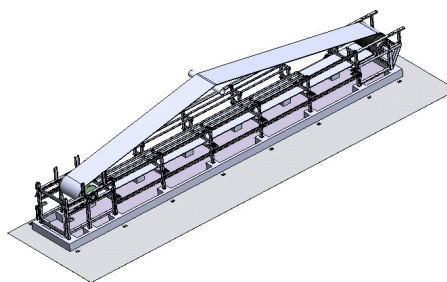


- **上胶带托辊安装 Installation of Top Support Roller**

- 利用行吊将胶带靠近尾轮部分吊起，方便将支承辊架及上胶带支承辊放入且易于调整。Lift the part of the rubber belt close to the Tail Pulley, so that the support roller rail and top support roller can be inserted and adjusted easily.
- 将尾端胶带支承辊架放在尾端上机架及相邻中间上机架上，找正后用螺栓固定。Set the tail Support Roller Rail on the Top Carriage Rail-Tail and the neighboring Central Top Carriage Rail. Fasten with bolts after alignment.

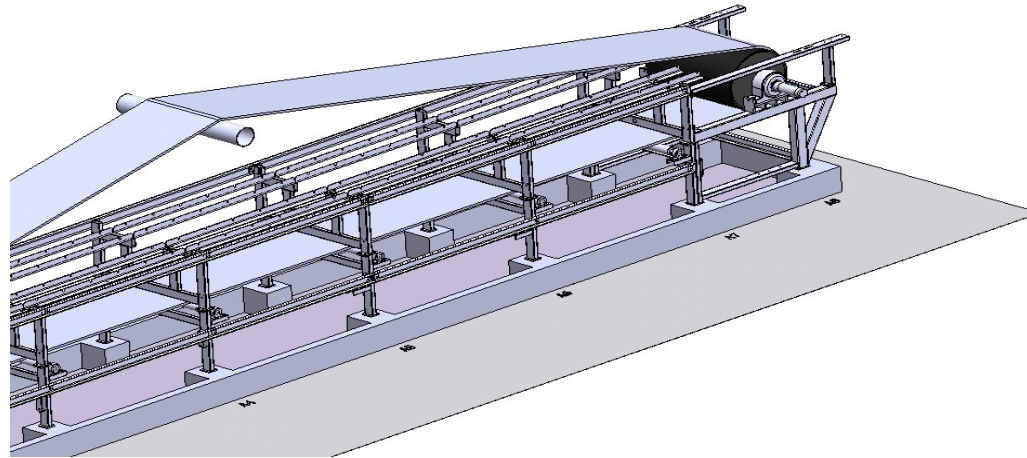


- 依次将胶带中间托辊架安装于中间上机架上，并用螺栓固定。Install the Central Support Roller Rail on Central Top Carriage Rail in proper order and fasten with bolts.

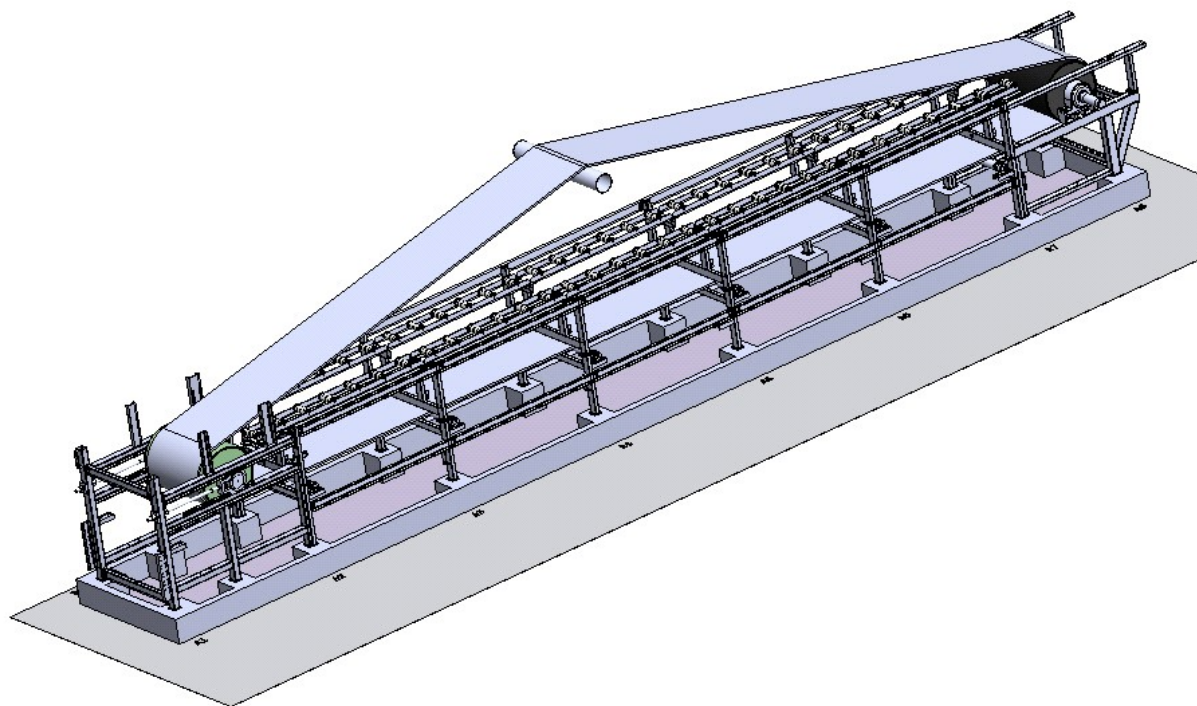


- 将头端胶带支承辊架放在头端上机架及相邻中间上机架上，找正后用螺栓固定。Set the front Support Roller Rail on the Top Carriage Rail-Head

and the neighboring Central Top Carriage Rail. Fasten with bolts after alignment.

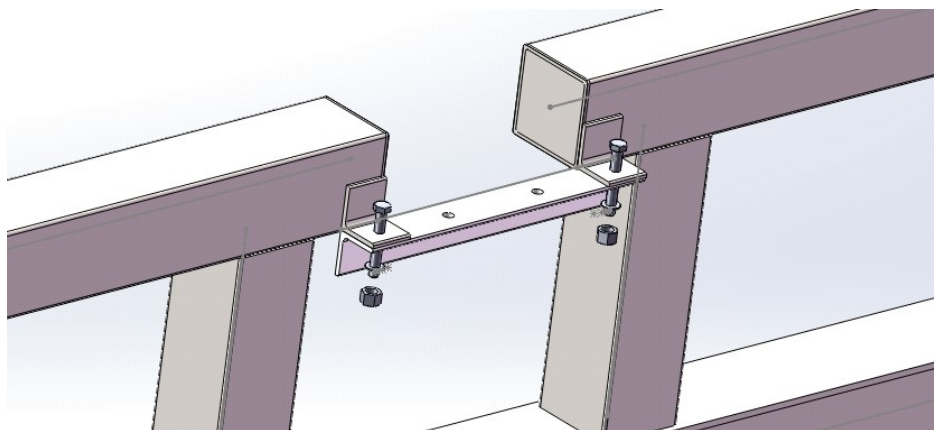


- 将胶带上托辊依次放置在胶带支承辊架的槽内，完成上胶带托辊的安装 Set the Top Support Roller in the grooves for Support Roller Rail to complete the installation of the top support rollers.

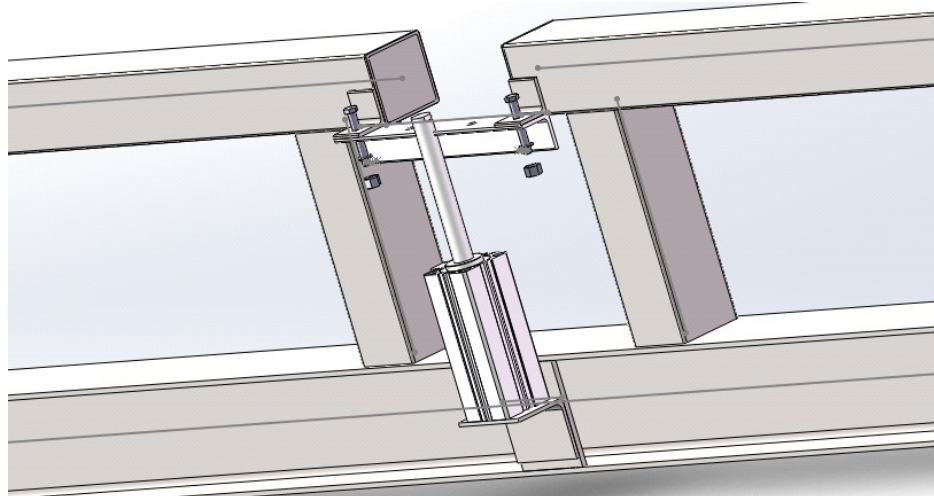


- 真空盒的安装 Installation of Vacuum Box

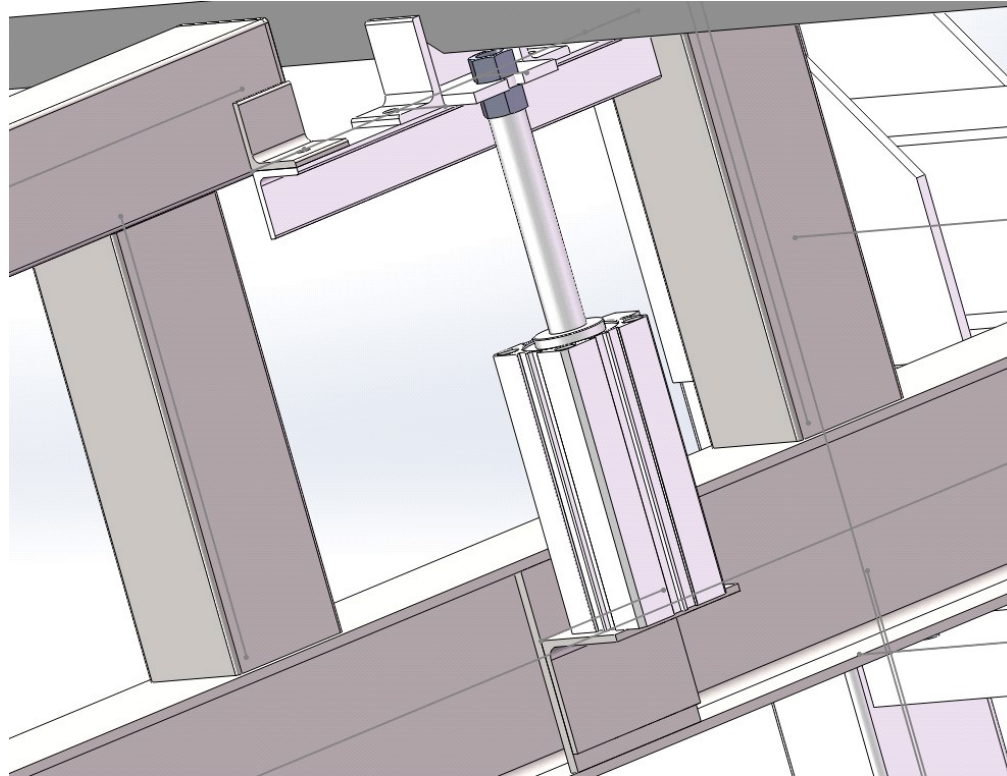
- 将真空盒固定角铁与真空盒固定横梁联接起来。 Connect the fastening angle of the vacuum box with fastening cross beam.



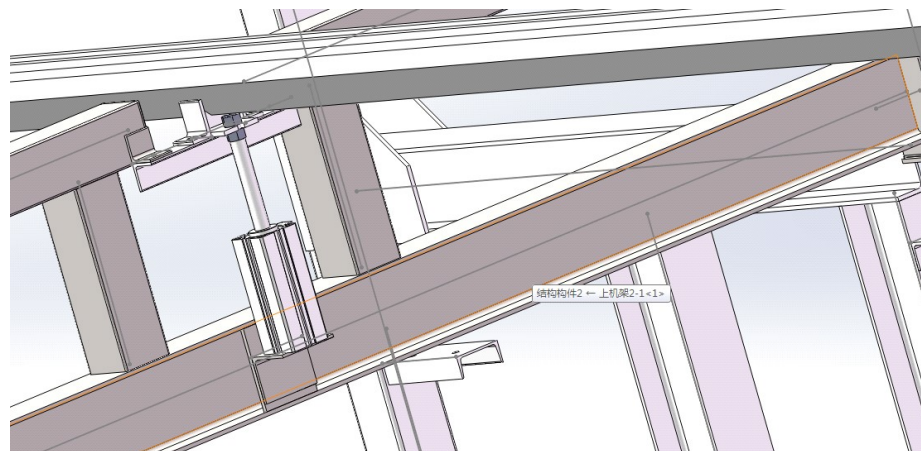
- 将升降气缸与升降气缸固定板联接起来（升降气缸有七件）。Connect the lifting cylinders with their fastening plates. (There are seven cylinders.)



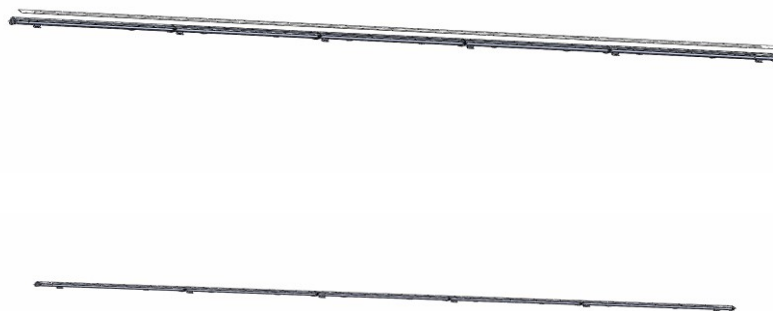
- 将真空盒 1 固定于尾端真空盒固定横梁上，与气缸活动杆联接。Fix Vacuum Box 1 on the cross beam at the end and connect it with the moving rod of the cylinder.



- 依次将真空盒安装于真空盒固定横梁上，并与前一节真空盒进行联接，然后将真空盒校正，其公差范围满足表 2 规定。Set the vacuum boxes on the fastening cross beam one by one, with each connected with the vacuum box in the previous section, and then make alignment. Allow for the tolerance as specified in Table 2.

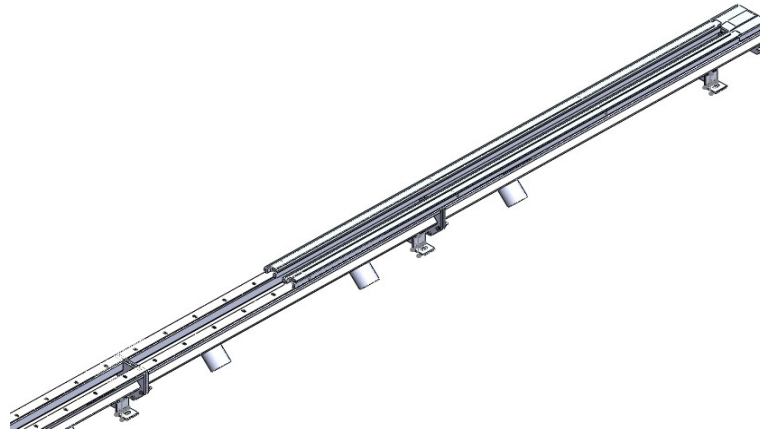


- 先在真空盒上涂上密封胶，然后再将橡胶板与真空盒粘接 Apply seal gum on the vacuum boxes and stick the vacuum boxes onto the rubber plate.



- 然后将真空盒端滑台 1 与真空盒 1 端面对齐，进行安装。然后用滑台固定板进与真空盒联接并与相邻的滑台相固定，并找正，然后用滑台固定板与

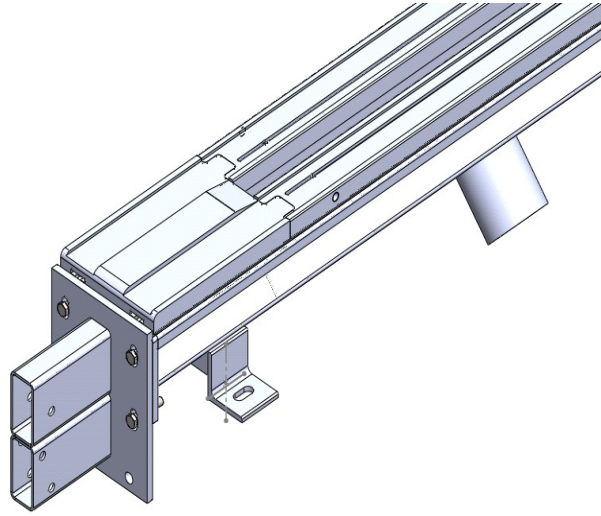
真空盒进行固定。Align Carriage 1 at the vacuum box end with the end surface of vacuum box 1 before installation. Connect the carriage fastening plate with the vacuum box and neighboring carriage and make alignment. Fasten the vacuum boxes with carriage fastening plate.



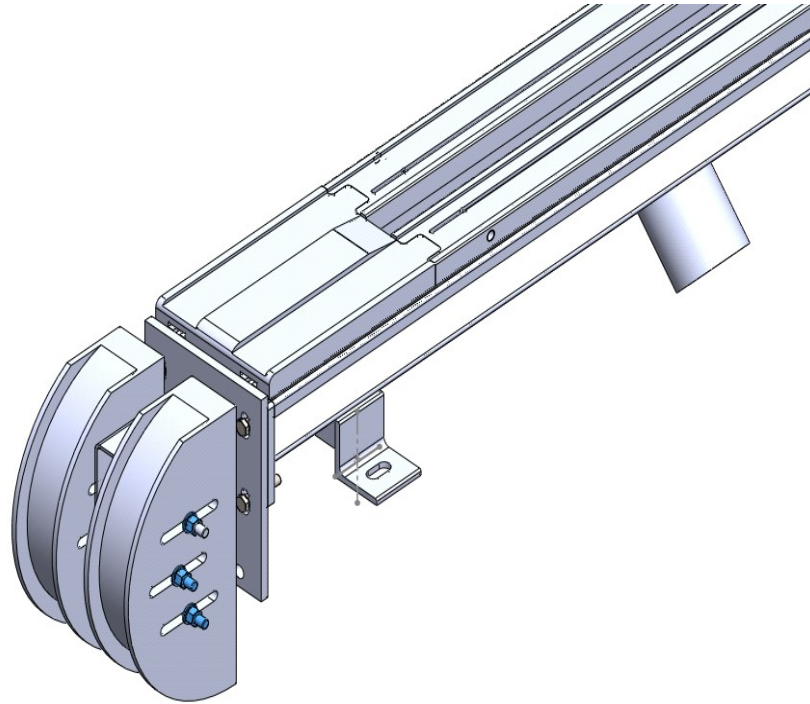
- 依次将中间滑台与前一节滑台相联，并找正（公差见表 1），然后固定。Connect the central carriage with the carriage on the previous section one by one, and make alignment and fastening (allowing for tolerance specified in Table 1).



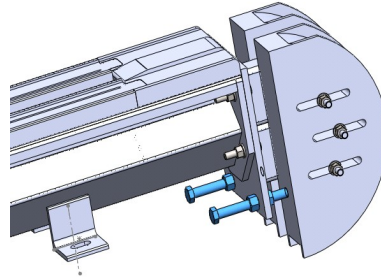
- 将滑块支座用螺栓固定于真空盒两端头。Fasten the slide base with bolts at the two ends of the vacuum box.



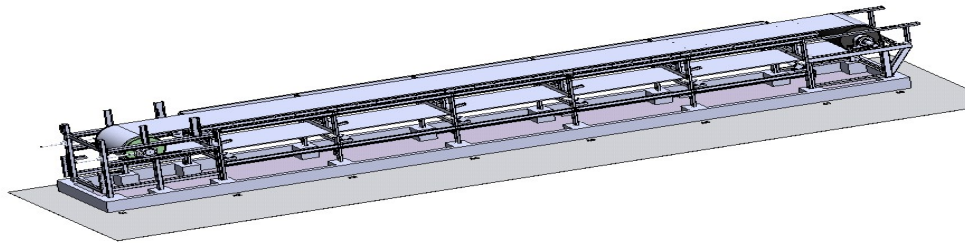
- 将半圆滑块固定在支座两侧。Fasten the semi-circular slide blocks on the two sides of the base.



- 用调螺栓将半圆滑块与滑块支座进行联接，以固定半圆滑块。Connect the semi-circular slide block with the base by adjusting screw nuts to fasten the semi-circular slide block.



- 将胶带吊梁放平，抽出，然后将尾部调整丝杠将胶带拉紧。Place the hanging beam of the rubber belt horizontally, pull it out, and tighten the rubber belt with the adjusting screw rod at the tail end.



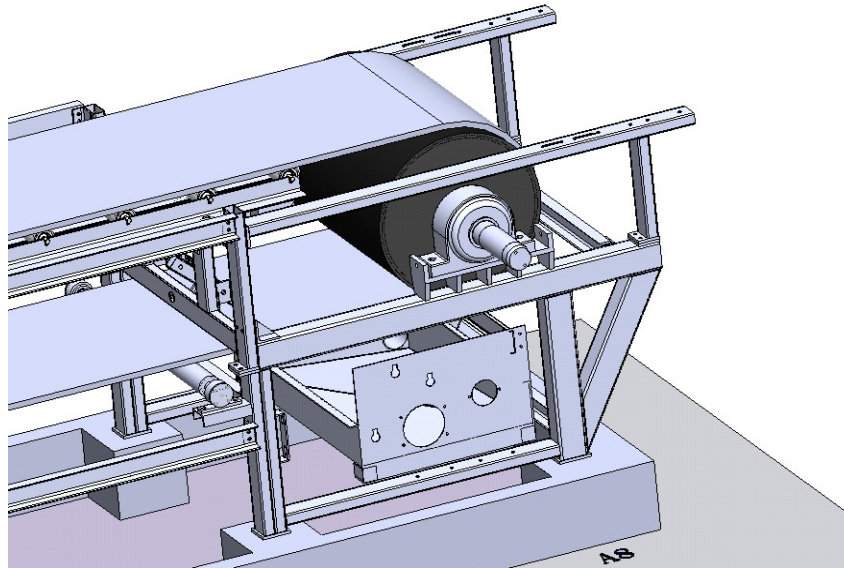
• 磨擦带的安装 Installation of Friction Belt

- 将固定真空盒横梁的螺栓拆除 Remove the bolts for the fastening of vacuum box cross beam.

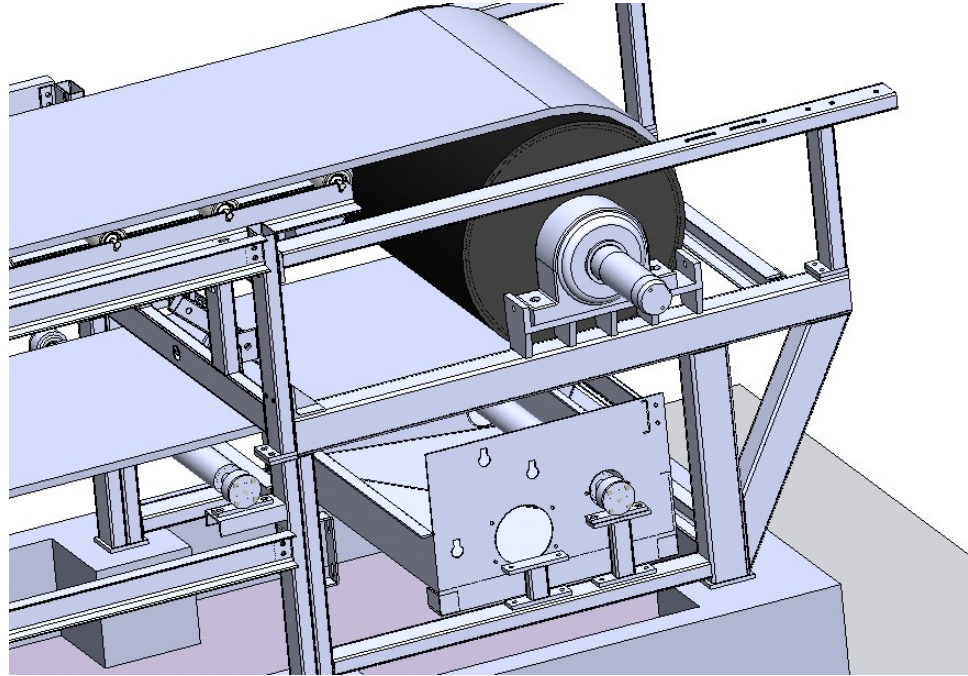
- 转动手摇减速机将真空盒缓慢放下 Turn the manual reduction gear to lower the vacuum box slowly.
- 将磨擦带从总管对侧套入，并放入滑台槽内 Set the friction belt into the opposite side of the main pipeline and place it into the groove in the carriage.
- 装入磨擦带后，转动手摇减速机将真空盒拉起（若不能拉起，可用千斤顶顶从动端的真空盒）After mounting the friction belt, pull up the vacuum box by turning the manual reduction gear. (If it can not be done, lift the vacuum box at the end of the slave roller with a lifting jack.
- 将真空盒横梁固定螺栓紧固 Fasten the cross beam of the vacuum box with bolts.
- 调整真空盒前后两调整端块，以张紧磨擦带。Adjust the blocks at the two sides of the vacuum box to tighten the friction belt.

• 清洗斗安装 Installation of Washing Bucket

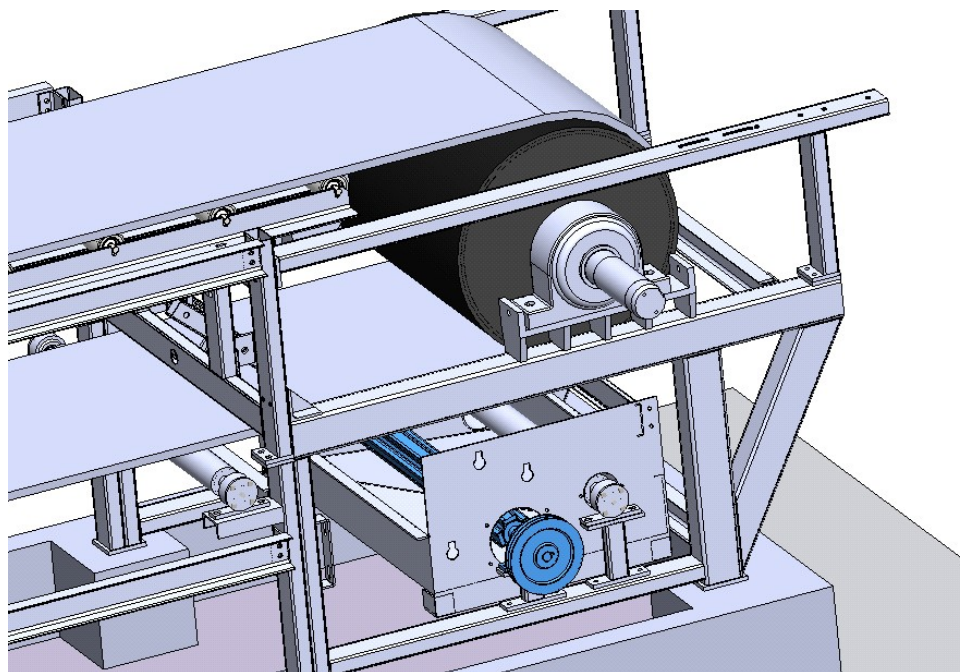
- 将清洗斗吊装至机架头部下部内侧，并与机架进行固定。Lift the washing bucket to the inside of bottom head rail and fasten it to the rail.



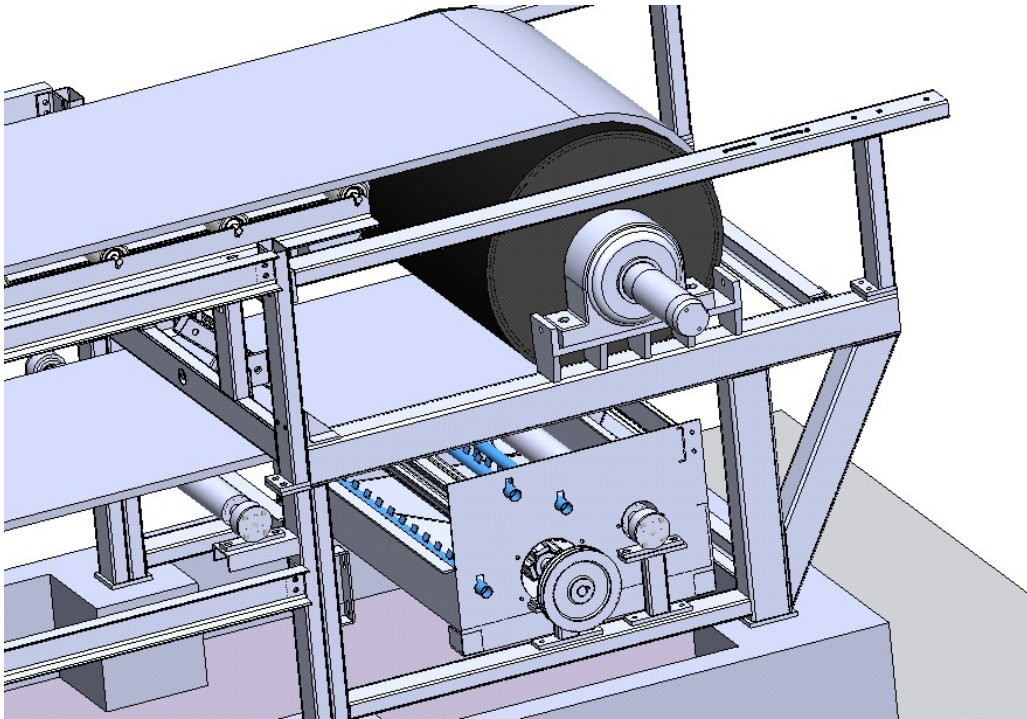
- 将安装好的清洗斗内改向辊穿过清洗斗，然后将轴承座支座安装于机架上，并通过螺栓与改向辊轴承座相联。Run the return roller through the installed washing bucket, install bearing base on the rail and connect it with the return roller base by using bolts.



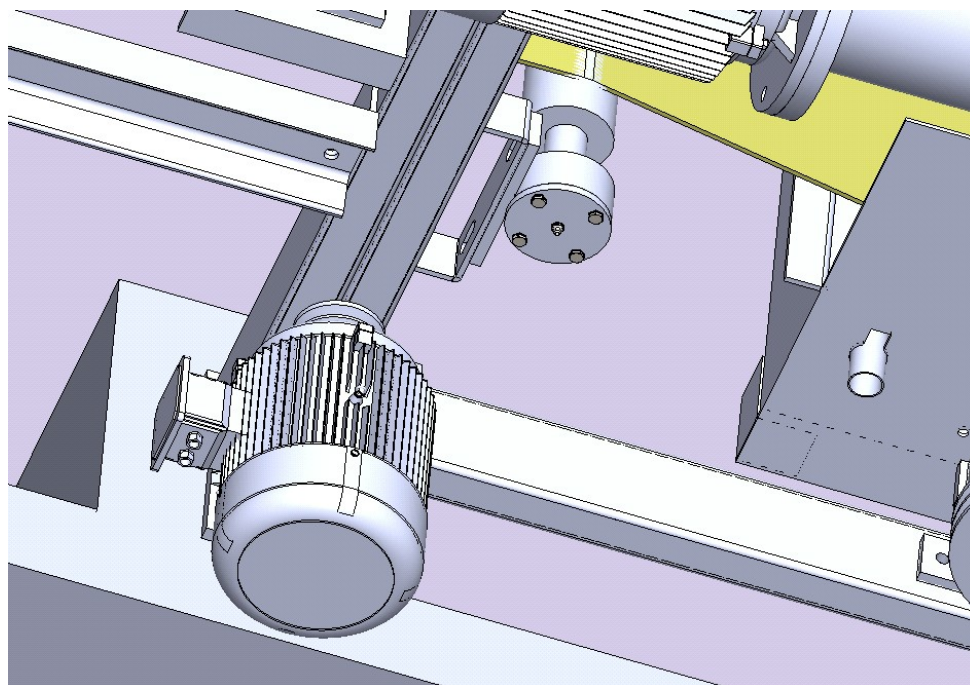
- 将安装好的刷辊穿过清洗斗，然后将轴承座支座安装于机架上，并通过螺栓与刷辊轴承座相联。Run the brush roller through the installed washing bucket. Install bearing base on the rail and connect it with the bearing base of the brush roller by bolts.



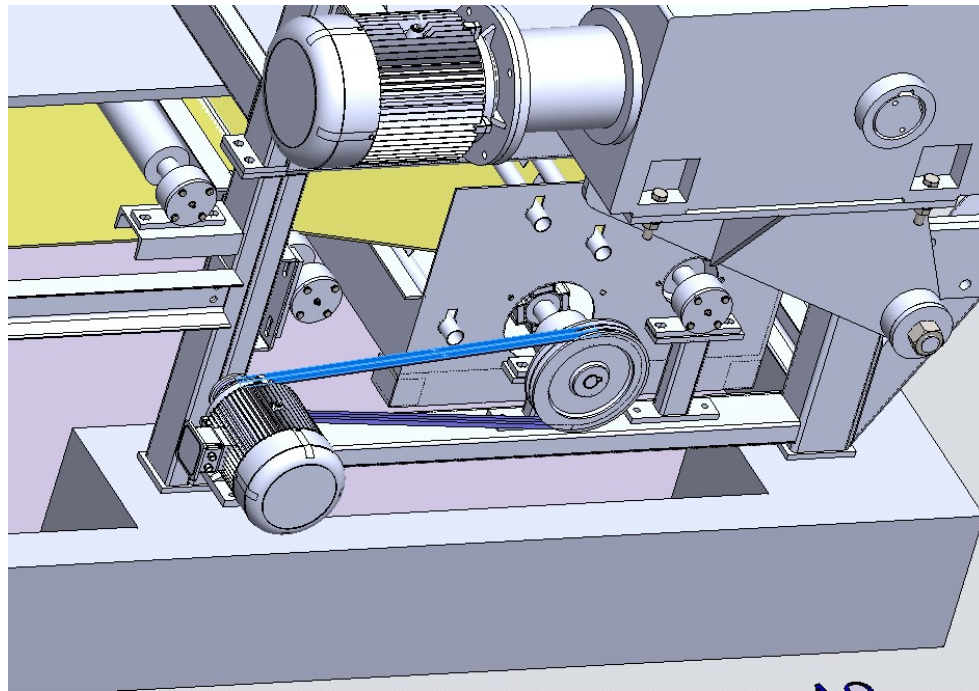
- 将清洗管穿过清洗斗，并固定。Run the washing pipes through the washing bucket and fasten it.



- 将刷辊电机固定在机架上 Fasten the brush roller motor on the rail.



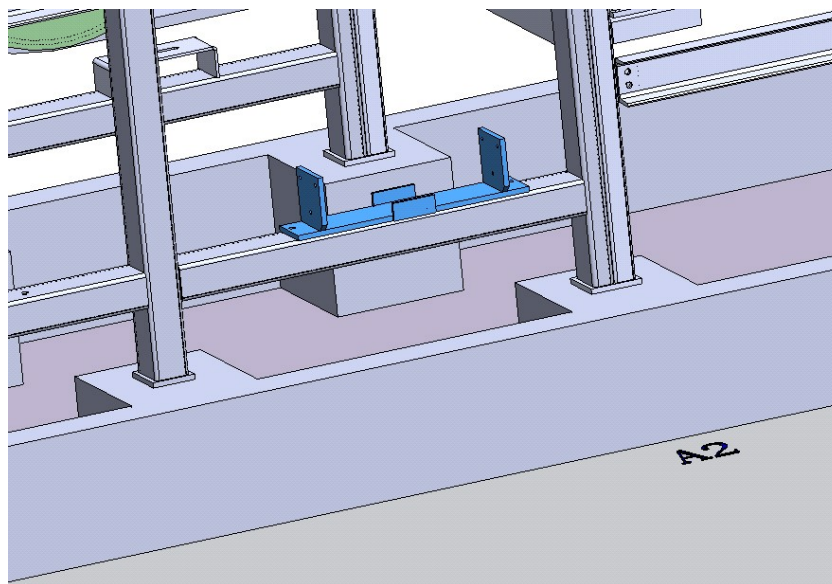
- 将刷辊及刷辊电机之间的皮带装上并且张紧 Mount the rubber belt of the brush roller and its motor and tension it.



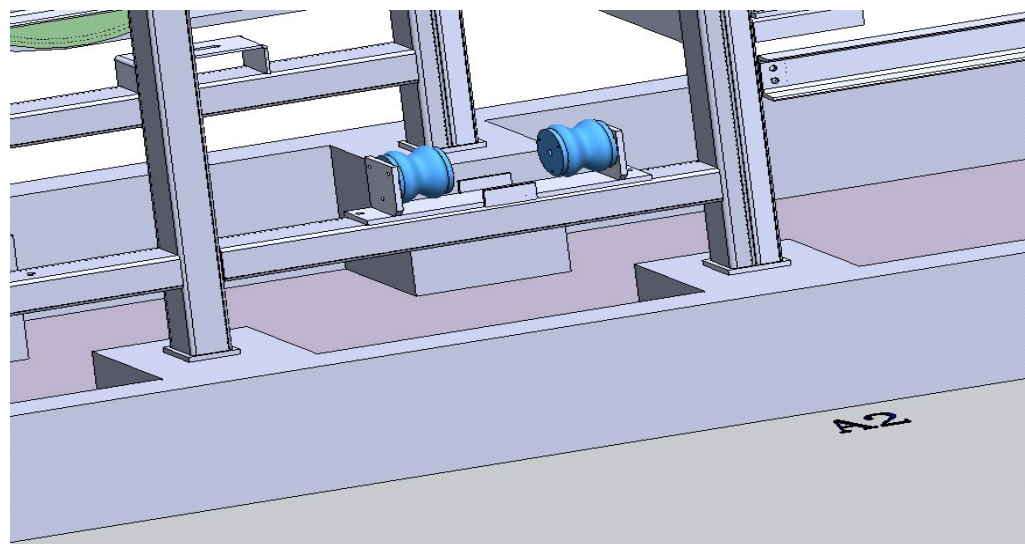
- 将电机防护罩安装上。Mount the protective hood of the motor.

• 纠偏装置的安装 Installation of Correcting Device

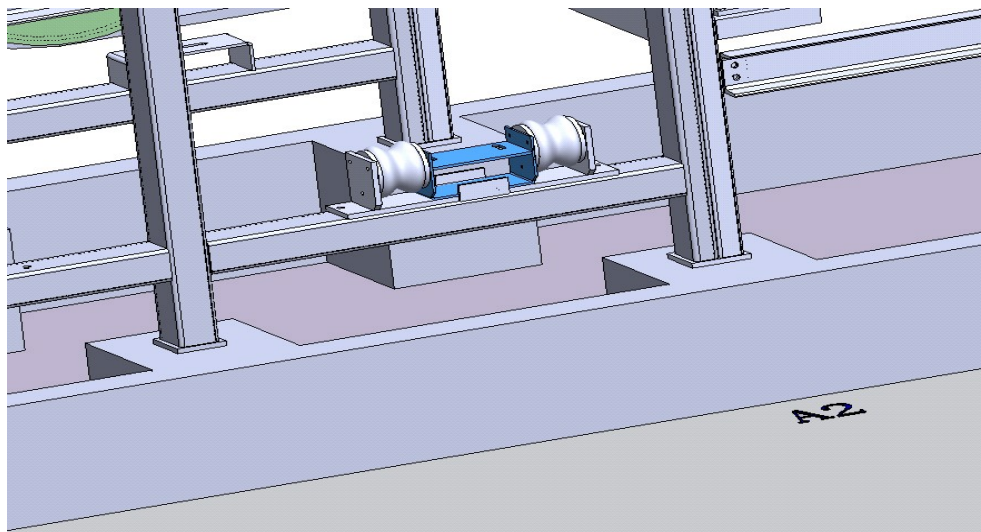
- 将纠偏固定座 1 固定于机架上。Fasten Correcting Device Base 1 to the rail.



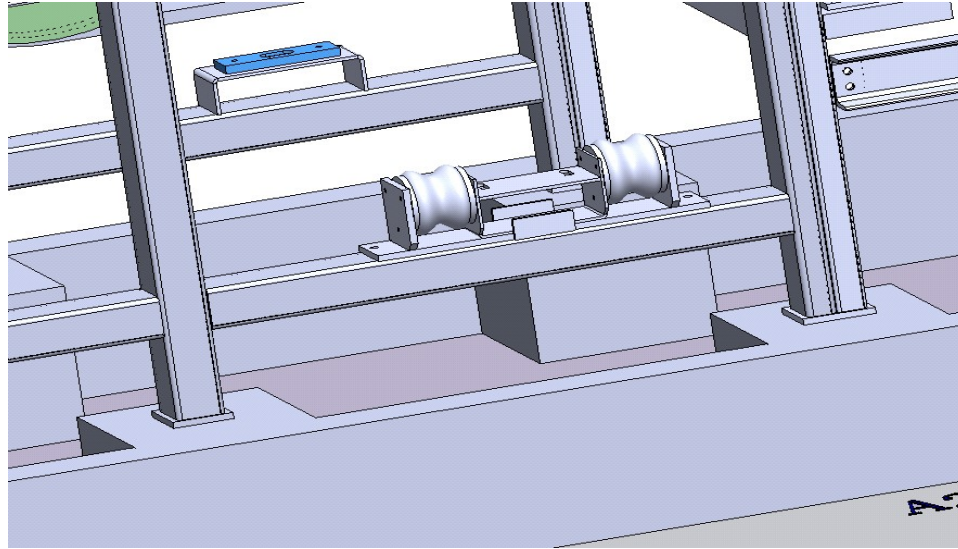
- 将气囊固定于纠偏固定座 1 上 Fasten the Air Bag to Correcting Device Base 1.



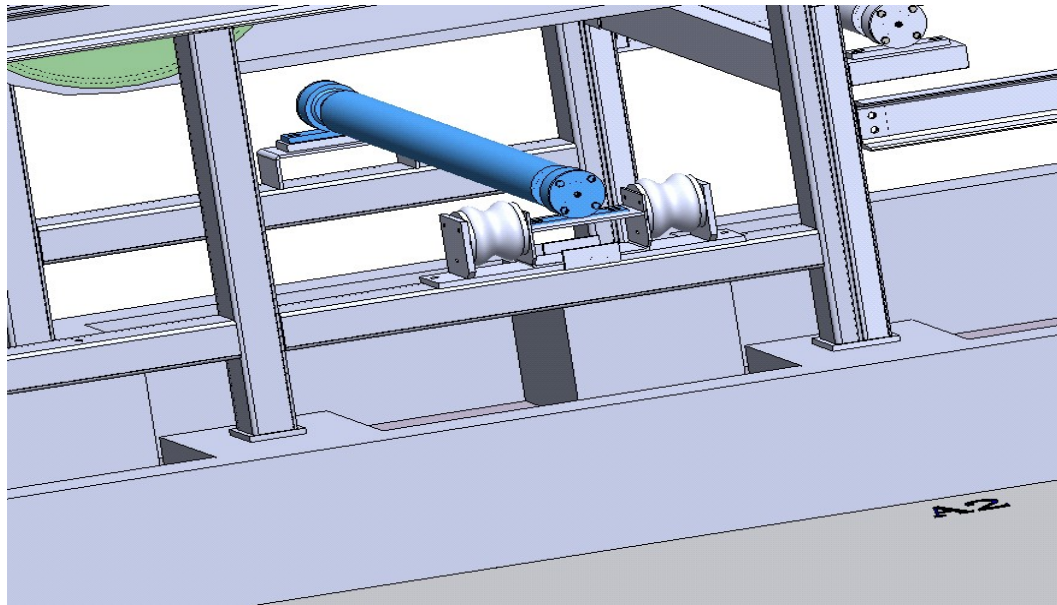
- 将移动座与气囊用螺栓固定 Fasten the moving base and Air Bag with bolts.



- 将纠偏转板固定于纠偏固定座 2 上 Fasten Correcting Board to the Correcting Base 2.

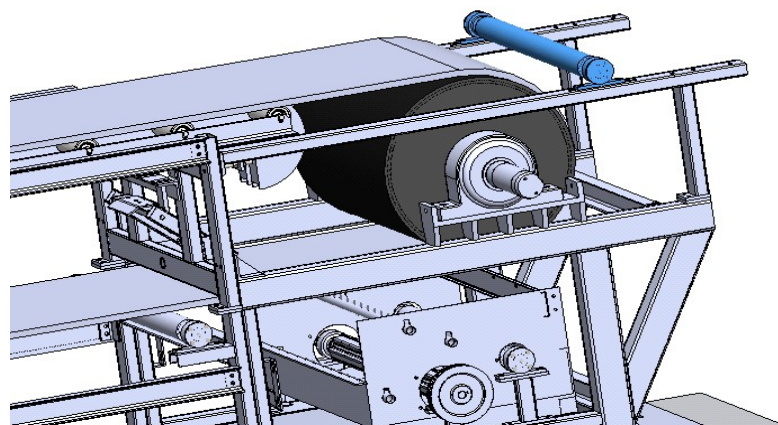


- 将已安装轴承的纠偏辊安装在纠偏转板和移动座上。Install the correcting roller with installed bearing on the correcting turning board and the moving base.

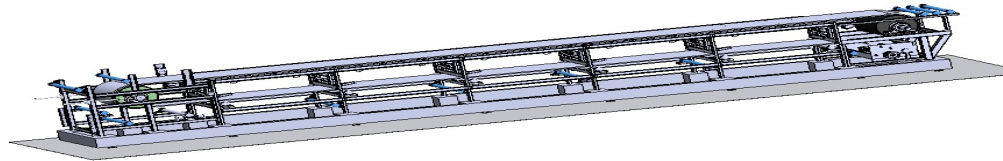


- 改向辊的安装 **Installation of Return Roller**

- 将已安装好轴承及轴承座的改向辊吊至机架上，测量其与机架一端的距离，以保证其平行度。Lift the return roller with installed bearing and bearing base onto the rail. Measure the distance to one end of the rail so as to ensure the parallelism.

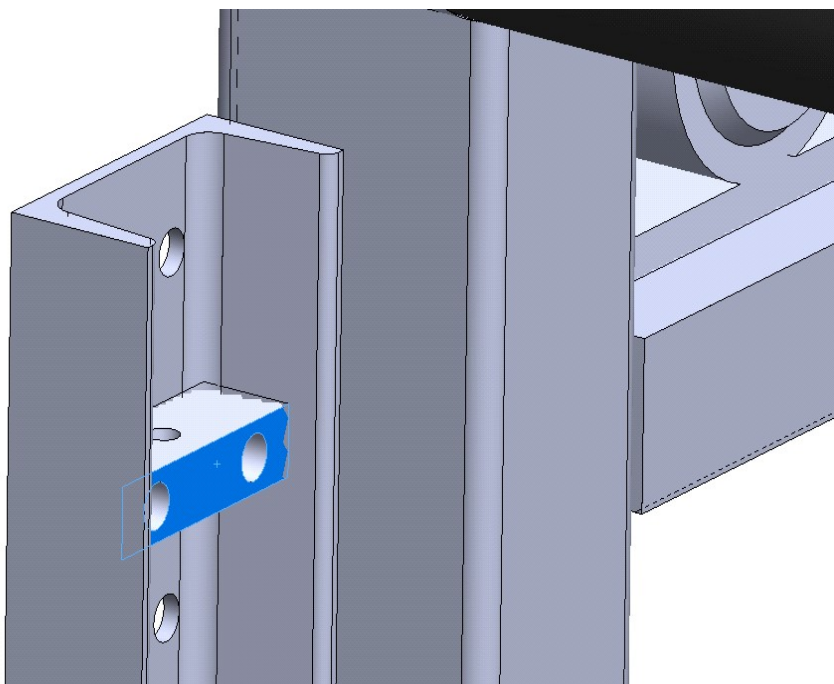


- 用螺栓将改向辊与机架进行联接固定。Connect and fasten the return roller and rail with bolts.
- 依次将设备上的改向辊固定于机架上，在固定时一定要保证各辊之间与机架的平行度。Fasten the return roller on the rail one by one in the correct order. Keep the parallelism of the rollers with the rail.

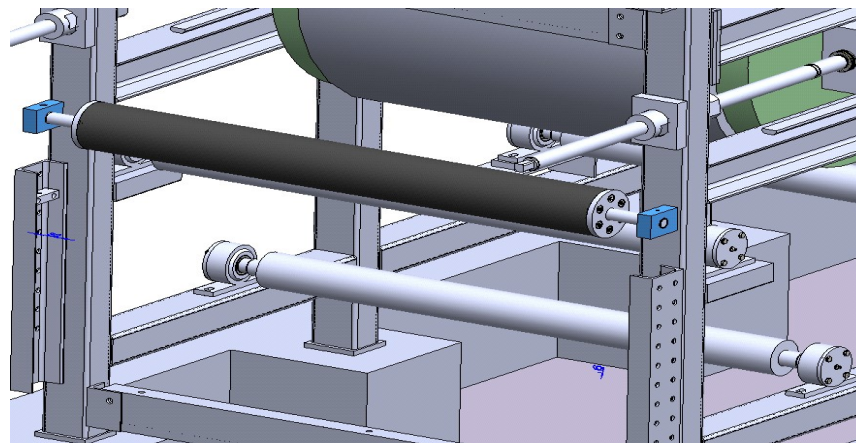


- 重力辊的安装 Installation of Gravity Roller

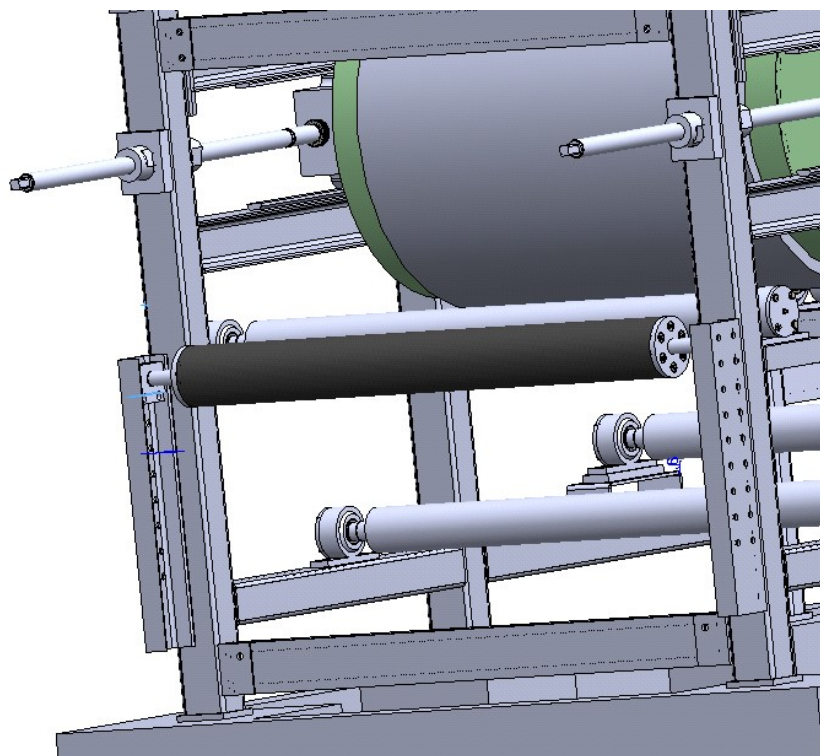
- 将调整移动块固定于调整槽钢的上部。Fasten the adjusting slide block to the top of the channel beam.



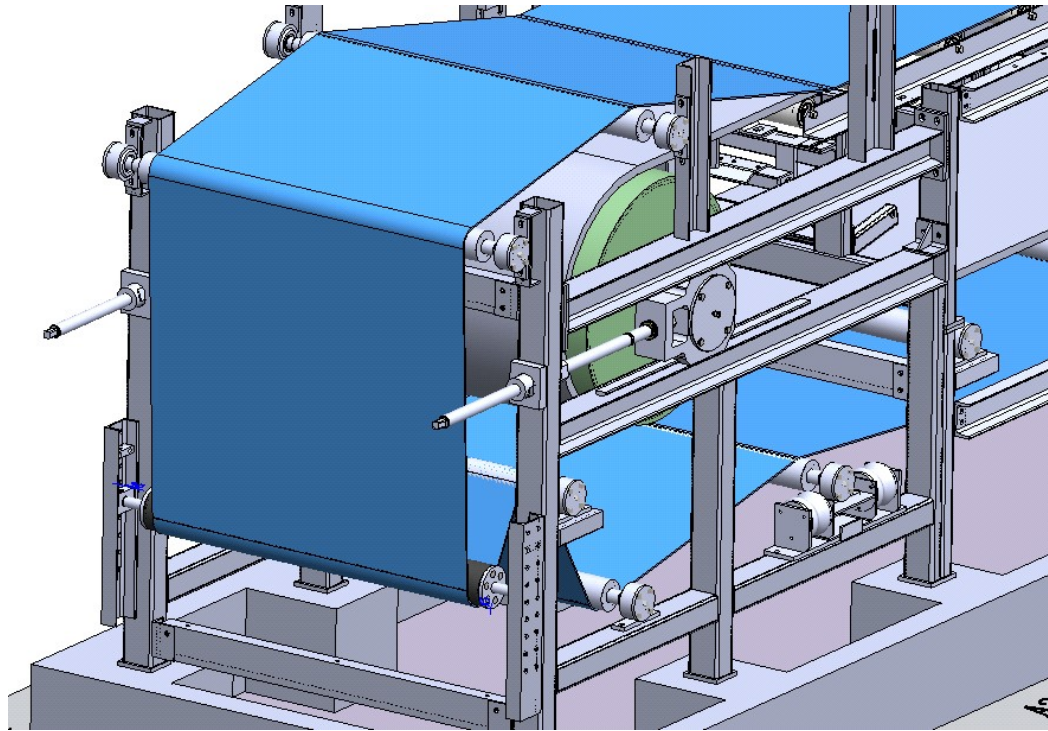
- 将调整滑块装于调整辊的两端轴头上。Install the adjusting slide blocks on the two ends of the adjusting roller.



- 将调整辊暂时放置于调整移动块上。Place the adjusting roller temporarily on the adjusting slide blocks.

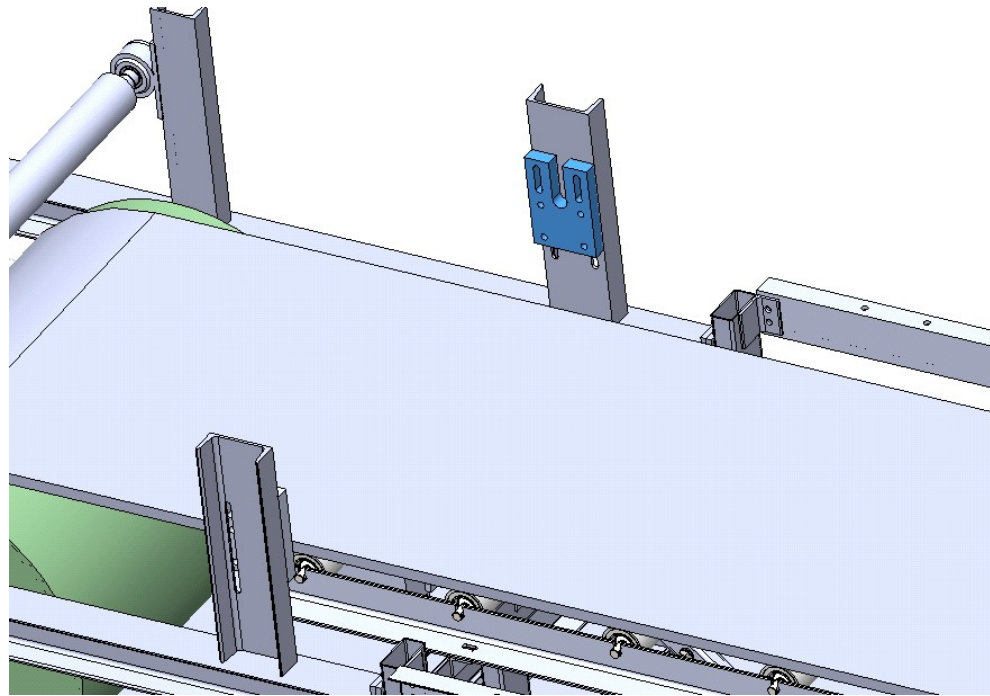


- 待滤布安装完毕后，将调整移动块拆除，使重力辊压紧滤布，并将调整移动块移至调整滑块的上部。After installing the filter cloth, remove the adjusting slide blocks so that the gravity roller press tightly on the filter cloth. Place the moving block on top of the adjusting slide block.

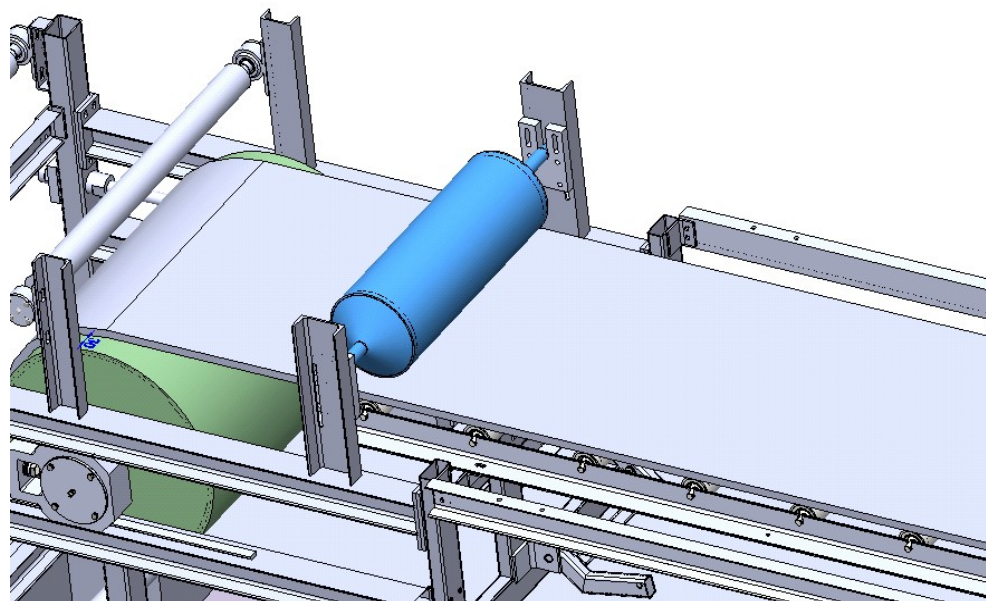


- 滤布压辊的安装 Installation of Filter Cloth Press Roller

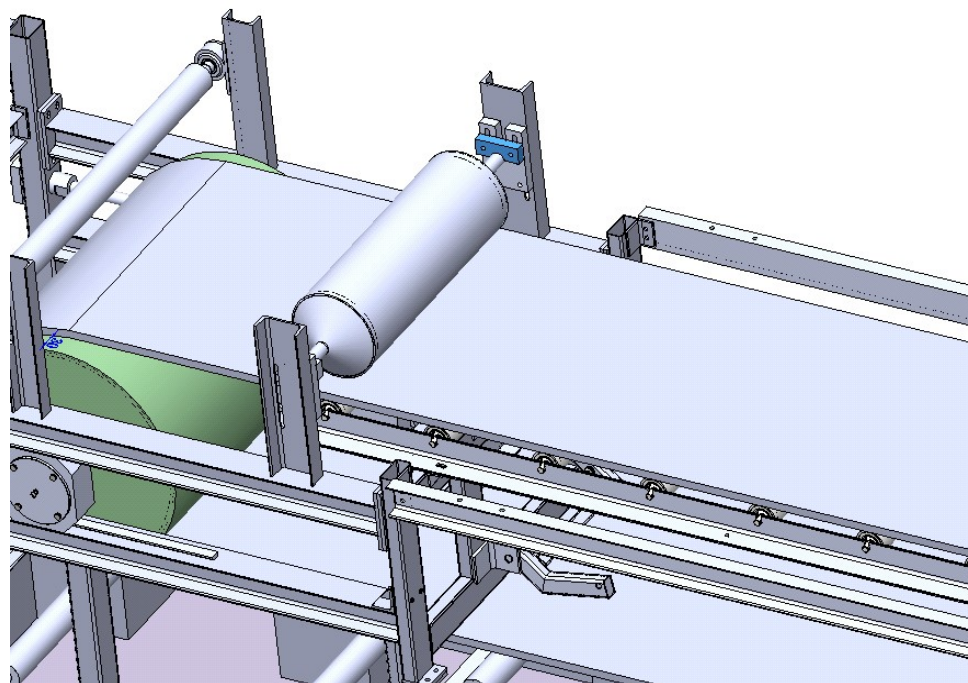
- 将滤布压辊滑块固定于机架上 Fasten the filter cloth press roller to the rail.



- 将滤布压辊放于滤布压辊滑块的中间槽内。Place the filter cloth press roller inside the central groove of the slide block.

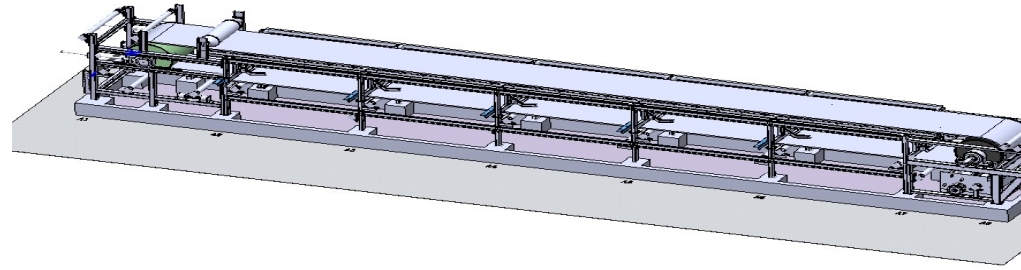


- 将滤布压辊压块用螺栓固定于滤布压辊滑块上。Fasten the press block of the press roller to the slide block with bolts.

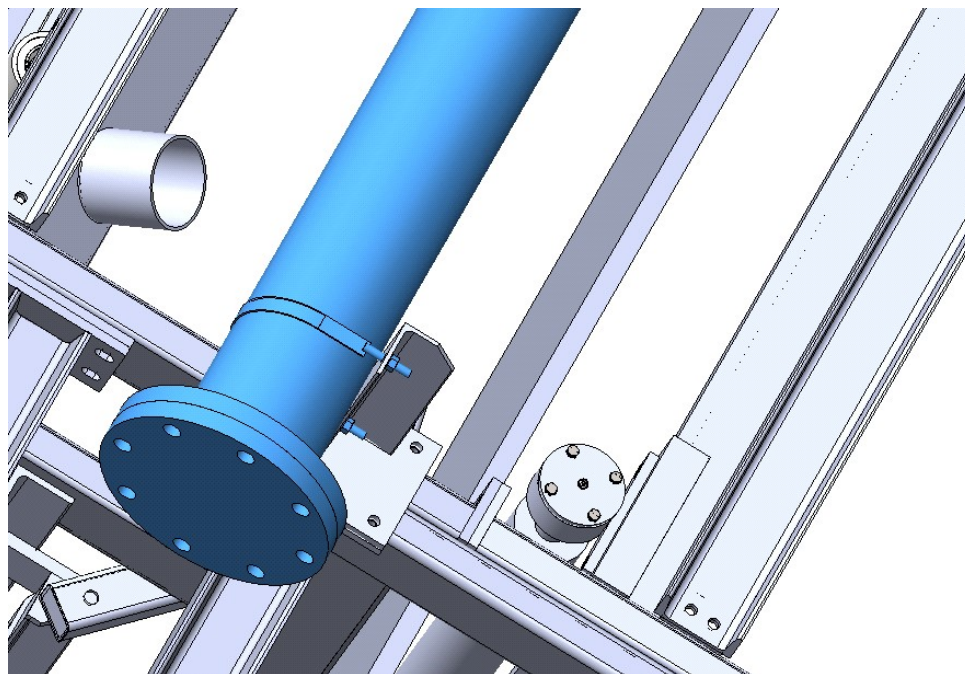


- 集液总管及排液罐的安装 Installation of Fluid Collection Pipe and Drain Tank

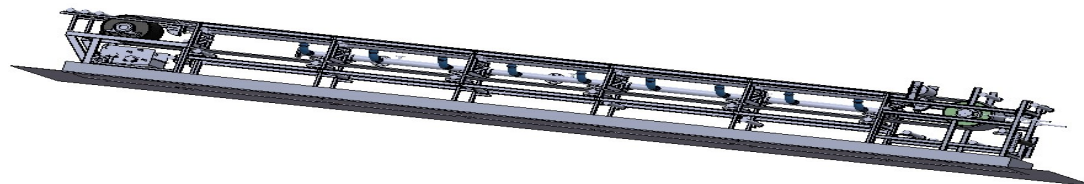
- 将集液管支座固定于机架上。Fasten the fluid collection pipe to the rail.



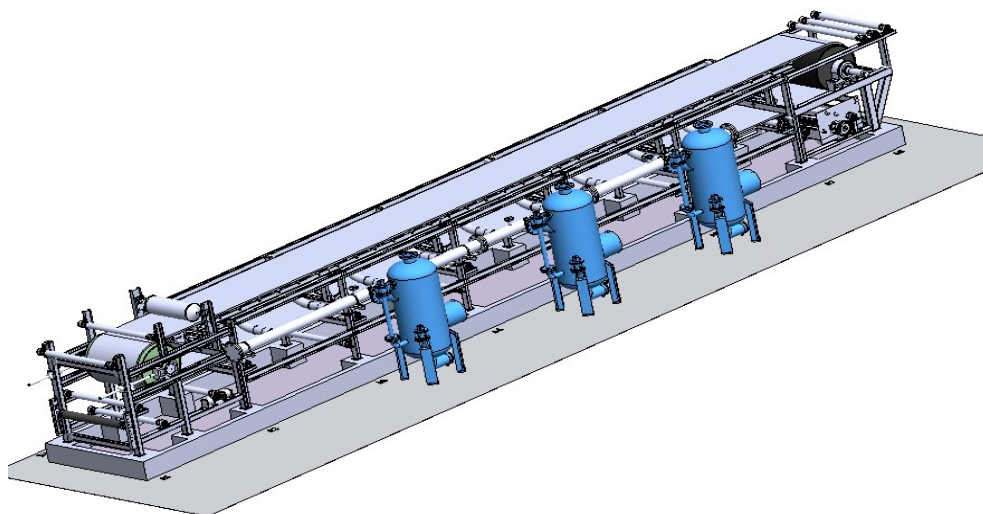
- 将集液管 1 固定于集液管支座上，并用集液管卡进行固定。Set Fluid Collection Pipe 1 on the base and fasten with fluid collection pipe clamp.



- 将集液管 2 吊装到集液管支座上，并用集液管卡固定，并与集液管 1 进行联接，集液管 1 与集液管 2 之间联接需加装胶垫。Set Fluid Collection Pipe 2 on the base and fasten with fluid collection pipe clamp. Connect it with Fluid Collection Pipe 1. Rubber mats are required for the connection of Fluid Collection Pipe 1 and Fluid Collection Pipe 2.
- 将剩余的集液管依次吊装到集液管支座上，并与前一节集液管相联，每节集液管间都需要加胶垫。Lift the remaining fluid collection pipes onto the base one by one and connect each with fluid collection pipe in the previous section. Make sure to use rubber mats for each connection.
- 将集液软管与总管进行联接,并用卡箍紧固。Make connection of the fluid collection pipes with the main pipe and fasten with clamp.

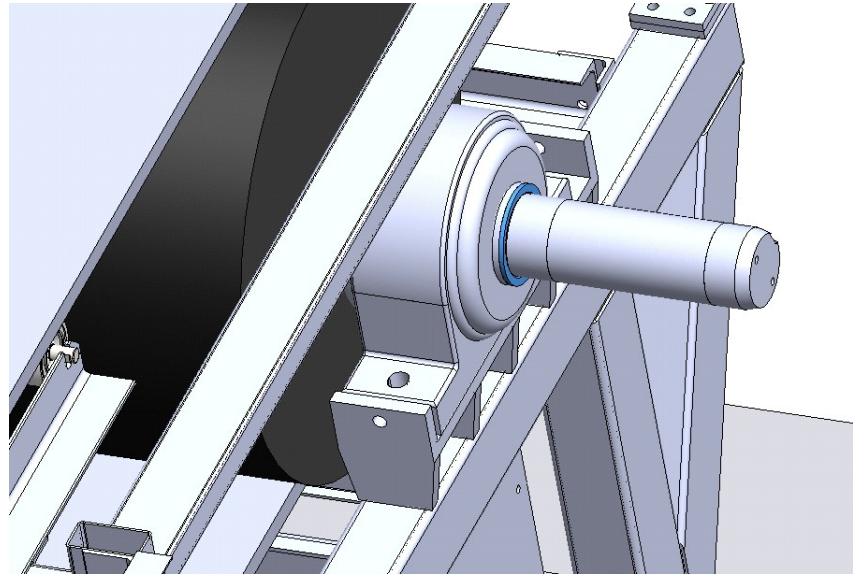


- 将排液罐与总管法兰联接。 Connect the drain tank with the flange of the main pipe.

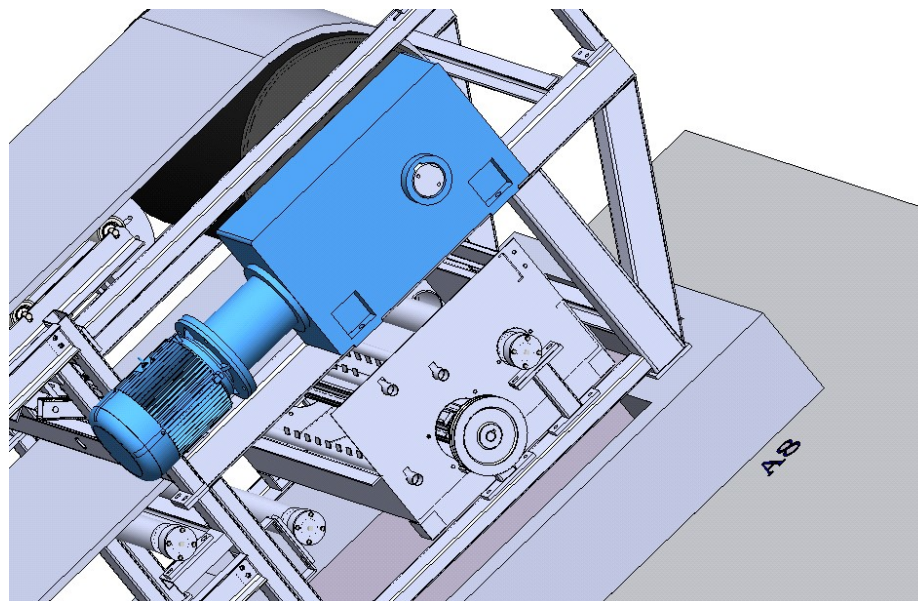


· 减速箱的安装 Installation of Reduction Gearbox

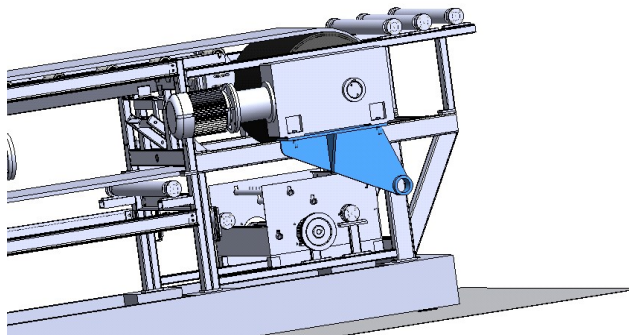
- 将减速箱侧的轴头擦干净，并进行测量以符合图纸尺寸为准。Clean the shaft head of the reduction gearbox. Check the dimensions to make sure that it is up to the requirements in the drawing.
- 将密封板套入驱动辊长轴侧，并涂密封胶。Place sealer plate on the long shaft side of the driving roller and apply sealing gum.



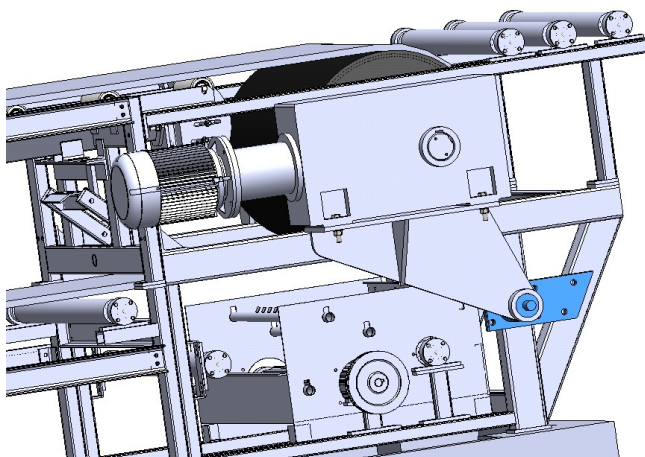
- 将驱动减速箱装入驱动辊长轴侧。安装时一定要将减速箱键槽对准轴上的键槽，减速箱装入后，将键插入。Install the driving reduction gearbox on the long shaft side. Make sure that the key groove of the reduction gearbox is aligned with the key groove of the shaft. After the installation, insert the key.



- 将驱动支承板上端与减速箱联接，下部与驱动支承轴联接。Connect the top part of the driving bearing plate with the reduction gearbox and the bottom part with driving support shaft.

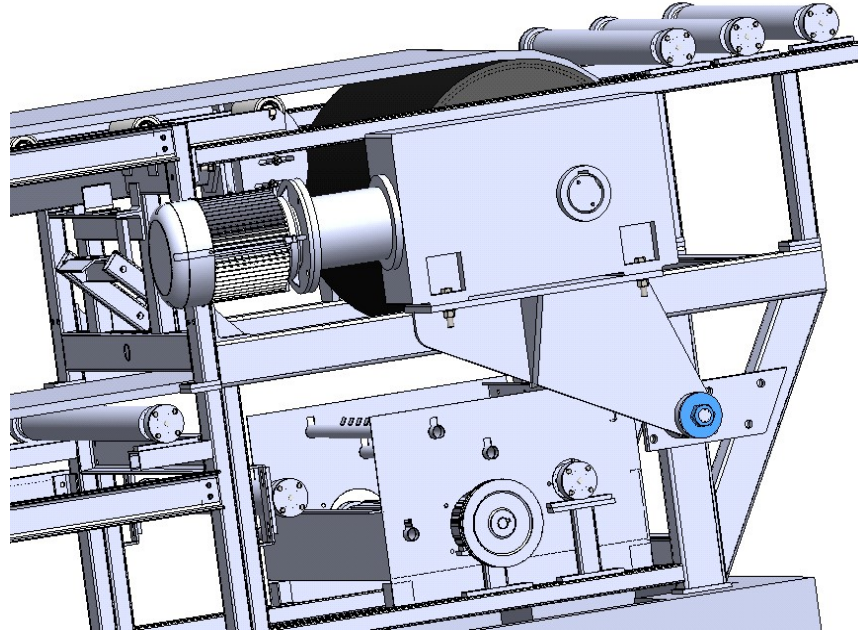


- 将驱动支承轴与机架固定。Fasten the driving support shaft to the rail.



- 将减速机端板与驱动辊轴用螺栓联接，将减速箱与轴固定牢靠。Connect the end plate of the reduction gearbox with driving roller shaft with bolts to fasten the reduction gearbox and the shaft tightly.

- 将支承轴挡板通过螺母固定于驱动支承轴上。Fasten the support shaft baffle to the driving support shaft with bolts.



• 控制柜的安装 Installation of Control Cabinet

- 将主控柜安装于主控制室或将其挂在机架上 Main Control Cabinet can either be installed in the main control room or put up on the rail.
- 将气控柜及现场操作柜安装于设备上 Install the air control box and operation box on the equipment.
- 将主控制柜与现场控制柜及气控柜之间的联接电缆。Connect the electric cables for the main control cabinet, operation box and air control box.
- 将现场操作柜与电机、控制阀之间的电缆联接。Connect the electric cables between the operation box and motors and control valves.

• 管路的安装 Installation of Pipes

- 将密封水管安装于设备上 Install the sealed water pipe on the equipment.
- 将切换阀气管安装于设备上。Install the air pipes for check valve on the equipment.

- 将切换阀气管通过软管与气控柜上的 2 位 5 通电磁阀接管相联。Connect the air pipes for check valve with the 2-phase, 5-way solenoid on air control box through hose.

• 外部管路的安装 Installation of External Pipes

- 将气源相接入气控柜。Connect the air control box with the air source.
- 将外部电接入主控柜。Connect the main control cabinet with a power source from an outside adaptor.

• 胶带挡板或裙边的安装 Installation of Rubber Belt Baffle or Curbing

1、挡板安装方法 Installation of Baffle

- 将挡板固定架固定于机架上 Fasten the baffle to the rail.
- 将挡板与挡板固定角钢用螺栓联接好 Fasten baffle and its fastening angle with bolts.
- 将挡板固定角钢与挡板固定架用螺栓联接，并调整与胶带边的距离。Connect the baffle fastening angle and baffle base with bolts. Adjust the distance to the edge of the rubber belt.

2、裙边安装方法 Installation of Curbing

- 将裙边打磨（若出厂已经打磨的，现场仍需要再次打磨）Polish the curbing. (If polishing has already been performed when leaving factory, another polishing is still required at the site.)
- 用毛刷将打磨的面清扫干净（不允许用清洗剂）Clean the polished surface with brush. (No detergent is allowed.)
- 将胶带需与裙边粘接的面进行划线（离胶带边比裙边宽 10MM）并打磨 Draw a line on the rubber belt that is going to glued together with the curbing (10MM wider from the rubber belt than the curbing) and polish.
- 将胶带打磨的面用毛刷进行清扫（不允许用清洗剂）Clean the polished surface with brush. (No detergent is allowed.)
- 将胶带及裙边同时涂粘接胶（应先涂一段），等一段时间（温度高时时间较短，温度低时，时间较长），粘接胶的表面稍稍有点干，粘性较好时进行粘接（一般采用手指试，当有还有粘度并且胶粘不到手上为最佳粘接时间）。Apply adhesive both on the rubber belt and on the curbing (one section at a time). After a while (a shorter time period is required at high temperature and a longer period at low temperature), the surface of the adhesive will be drying. Stick the two together when the adhesive is sticky. (Try with a finger. The adhesive is at the best when it is still sticky but not sticking to the finger.)
- 用手托住裙边，从前向后以点式将胶带与裙边用手指压紧（裙边外侧与胶带外侧距离为 3-5MM），并用木槌轻轻敲打裙边（均匀敲打 3-5 次），使裙

边与胶带紧密结合。待胶带两侧上部裙边粘好后，等 2 个小时，使胶完全干后，才能转动驱动轮将胶带转动到下一面进行粘接。Support the curbing with hand and press the rubber belt and curbing tightly together point by point with fingers. (Keep a distance of 3-5MM from the outside of the curbing to the outside of the rubber belt.) Knock the curbing with wooden hammer (evenly for 3-5 times) so that the rubber belt and curbing is held closely together. Two hours after the two are stuck, the adhesive will dry up. Turn the drive wheel so that the rubber belt moves to the other side for adhesion operation.

- 距离最后接头还有 2 米时，将需粘接的裙边与接头裙边进行比对，搭接胶带与固定胶带至少保证有 200MM 重合，并且沟槽能够重合；若不重合，需调整裙边的紧度，并且将上面重合裙边的底部切除，粘接后将胶带上部与接头粘接。When 2M is left at the end of the joint, compare the curbing to be stuck together and the joint curbing. Make sure the matching rubber belt will overlap with fixed rubber belt for at least 200MM and that it can match up the groove. If not, adjust the tension of the curbing. Cut off the bottom of the overlapping curbing and stick the upper side of the rubber belt with the joint.
- 必须等粘接完全干燥后才能进行后续的工作。Follow-up work can only be started after the adhesive dries up completely.

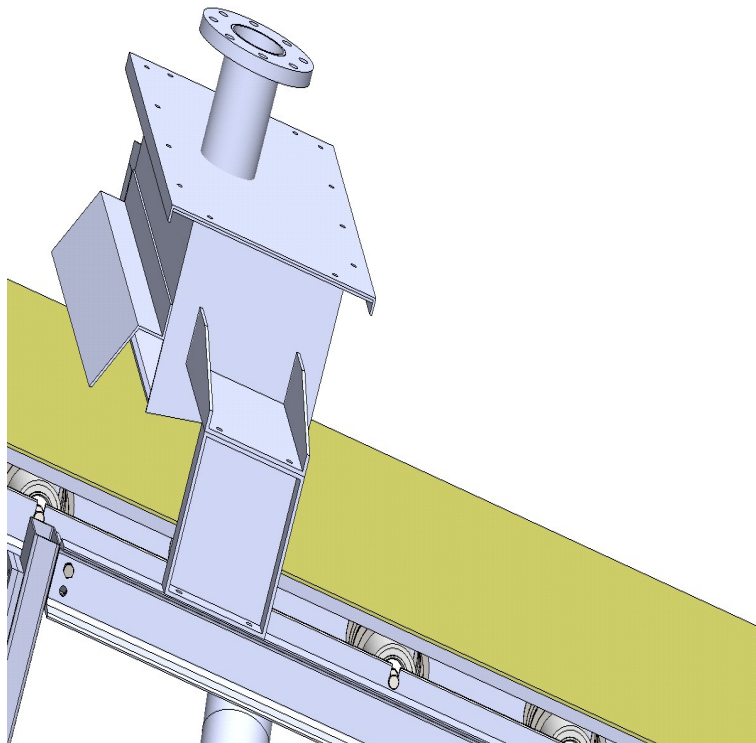
• 胶带打孔 Punching Rubber Belt

注：在胶带打孔前，必须将胶带跑正（跑带时间不低于 48 小时，并且胶带跑胶带时，人不得站在胶带上部），胶带打孔采用专用打孔钻头。Note: Before punching the rubber belt, keep the belt turning. (The turning time should be at least 48 hours. Stay away from the top of the belt when it is running.)

- 将跑正的胶带对准真空的中心先划一中心线（若打椭圆孔，应将两侧的中心线也划出）Align the rubber belt with the center of the vacuum box and draw a central line. (When making an oval hole, draw the central line for the two sides as well.)
- 在胶带槽中间进行打孔（注意打孔时不能打到真空盒滑台上）。Punch in the center of the groove of the rubber belt. (Not hit the carriage of the vacuum box when punching the holes.)

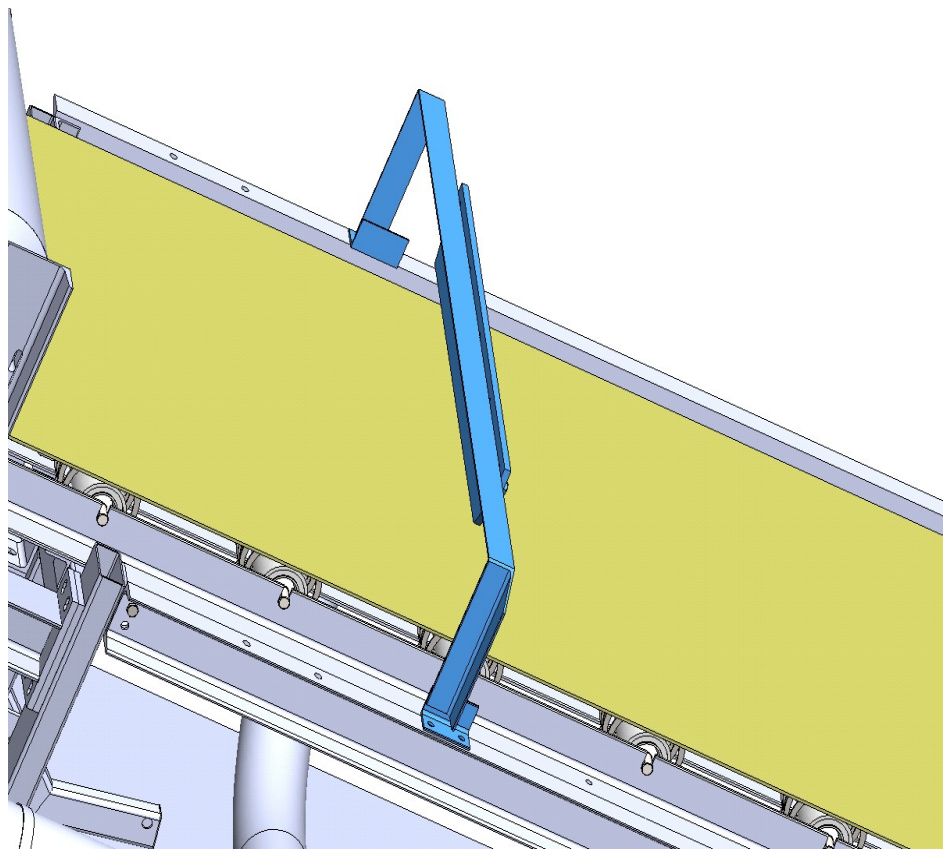
• 下料斗的安装 Installation of Feeding Bucket

- 下料斗吊装于机架的侧拉上，并通过机架侧拉上的固定也进行固定。Lift the feeding bucket to the side of the rail and fasten it to the side of the rail.



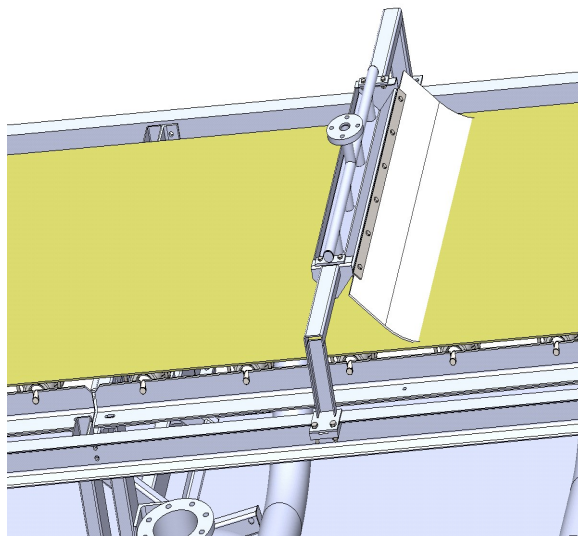
- 隔离器的安装 **Installation of Separator**

- 将隔离器吊装于机架的侧拉上，并通过固定板与机架侧拉机架固定。 **Lift the separator to the side of the rail and fasten it to the side of the rail.**



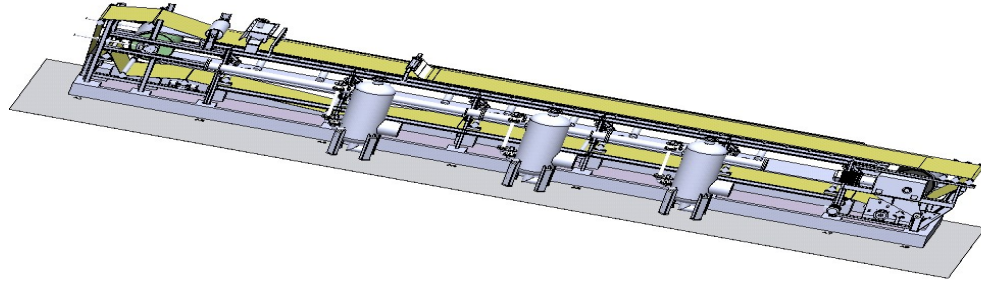
- 淋洗斗的安装 Installation of Rinsing Bucket

- 将隔离器吊装于机架的侧拉上，并通过固定板与机架侧拉机架固定 Lift the rinsing bucket to the side of the rail and fasten it to the side of the rail.



• 滤布安装 Installation of Filter Cloth

- 将成卷的滤布放于机架尾端 Place rolls of filter cloth at the end of the rail.
- 拖动滤布头部向驱动端，注意滤布的过滤面向上。Pull the end of the filter cloth to the driving end. Make sure the filter side faces upward.
- 滤布绕过驱动端，按装配图依次通过各个滤布改向辊。Wind the filter cloth at the driving side and run through each return roller as shown in the fitting drawing.



- 将滤布两端的搭扣压平对接，然后用专用钢丝联接。Press and connect the buckles at the end of the filter cloth with special steel wire.
- 调整重力辊张紧滤布（注意张紧的力度应合适，不应过紧）。Adjust the gravity roller to stretch the filter cloth. (Make sure that the proper tension is applied so as not to keep the filter cloth too tight.)