工业自动化、数字化 服务 工作内容

2023年12月份

顾问：田春颖

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| 工作内容 | 工作时长 | 差旅时间 /费用 | 备注 |
| Ayanda包装设备安全方案讨论  参加人：少钦、楚天Sherry、楚天工程师，SICK上海 | 2023-12-01  9:30-11:30  2.0小时 | 0/0 | 楚天邀请SICK上海安全工程师共同讨论   * 机器人相关的最小安全距离：500mm，楚天设备的安全距离超过这个距离，所以光栅应用没有问题 * Muting功能：楚天工程师对该功能理解错误，导致取消了Muting功能的应用，经过与SICK工程师一同讨论，外部使用光栅，内部使用光栅加对射开关，从而实现Muting功能 * 托盘进入留空的距离，根据安全规范，最多可以留180mm，防止人爬行进入 * 托盘放入的位置，增加一个按钮，确保在托盘自动移入的过程中没有人站在里面 * 安全复位流程：需要有人开关一次门，按一下里面的安全按钮，关门后按外面的按钮，之后在工位对设备进行复位，只有这样设备才可以恢复正常运行 * 隔板上料的工位，围栏高度1.1有人爬入的风险，所以不能设置A/B区分割，这样如果有隔板放入该区域，随即需要立刻停机 |
| 仙乐智能设备应用  参加人：张峰、少钦、书超 | 2023-12-04  13:00-14:00  1.0小时 | 0/0 | 根据领导要求，需要整理各种自动化数字化的前沿技术应用信息，给大家进行分享，峰总邀请会议讨论如何把这个工作做好   * 把一些好的自动化的应用，可以及时了解到，分享给其他部门，让大家有意识的应用新的技术。信息收集、整理和分享 * 哪些渠道是我们要去分享整理的，哪些是要落地的 * 定期的进行分享和学习 * 公众号特别多，不可能都去关注和应用 * 主流的包装自动化，有哪些信息了解渠道，进行更新了解 * 各种信息非常的繁杂，应用很多 * 很多公众号主要是为了获取流量，把很多信息放在上面 * 整理出来一个报告，从各种渠道拿到的信息要进行整理，然后进行分级处理，进行应用推荐 * 第一份报告：12月中旬下旬 * 有些人做个初筛，然后书超少钦田总进行整理，发出来   浓度测量设备：   * 再做一轮测试，然后根据结果评估如何进行使用 |
| Ayanda Packaging Line Meeting  参加人：Martin, 张峰 | 2023-12-05  15:30-16:30  1.0小时 | 0/0 | - Building: covered with roof. The walls are OK.  - Close all the façade.  - The Uhlmann equipment FAT ran well.  - Martin will travel to China on 27th and arrive on 28th of Jan at Changsha.  - HVAC system: 90% completed.  - Heating up to week 4.  - 27th of Dec: the equipment will arrive at Ayanda. When Uhlmann finishes their installation Ayanda will start to run the HVAC system.  - One person is hired from Jan 1st to work on the packaging line. This person comes from packaging supplier.  - The support from China: beginning of March.  - Jumbo 1 always has issues with Veggie. Conveyor belt system is still an issue. Change the system to transfer the soft-gels to the tumble dryers. The oil spillage with the blower for cooling is causing significant oil spread to the complete area.  - Jumbo 2 is starting to run. SAT was done last week. The dosing pump possibly needs to be improved. The pump from Pharmagel is very expansive. We need to think about how to get the 2nd one.  - The die roll for Jumbo 1 has some issues. The depth is not good. Martin will provide more information later.  - The drying process improvement is running in parallel. At the moment there is no issue but this will happen next year with the coming up of the customer demand. Hardness issue of the softgel needs to be taken care. |
| SCADA implementation with Haensel  参加人：Floto, 翁锡营 | 2023-12-06  15:00-15:30  0.5小时 | 0/0 | - 和Floto讨论目前SCADA执行情况，目前缺失未完成的信息  - 确定12月7日德国时间继续调试三线，争取完成时间戳的采集（9-10 am on 7th of Dec）  - 尽量本周完成三线的工作，包括所有数据和调试 |
| Truking Packaging Line  参加人：Martin, Tomasz, 张峰 | 2023-12-06  17:00-18:00  1.0小时 | 0/0 | - Sherry: continue to discuss with Tian and Shaoqin about the safety process change  - The risk assessment will take place next week and the engineering team from Truking will be needed  - DQ documentation: unscrambler document delivered and the rest are to be delivered next week  - CAPs from EU: shipped to Truking; Truking needs to confirm this  - The trip of Martin has been organized: end of Jan |
| Ayanda 包装线安全讨论  参加人：少钦，楚天Sherry，楚天工程师，SICK上海 | 2023-12-12  11:00-13:00  2.0小时 | 0/0 | - 急停流程更新：重新制定大复位的流程  - 安全钥匙内部插锁启动流程遗漏：要重新更新  - 空托盘进入：下部安全距离和隔板高度缺失，需要机械工程师补充  - Muting 的功能需要将光电开关进行正确安装，目前图纸上的示意显示了错误的安装方式  - 隔板放入位置：为了防止有人穿过围挡（为了让机器人运行，高度不足以防止人的跨入）  楚天取消了扇扫，但是没有考虑到设备死角看不到的问题，建议保留扇扫，不能覆盖的区域加钥匙盒来确保安全，外部无法启动设备，盲区区域加钥匙盒确保人可以把安全钥匙拧入，保证安全 |
| Ayanda 包装线PFMEA讨论  参加人：Marco, Sven, Martin, Tomasz, Holger, 楚天Sherry，楚天工程师，张峰 | 2023-12-12  15:30-19:00  3.5小时 | 0/0 | 和Martin、Marco一起完成设备PFMEA的Process Flow部分（所有的检测项目，过程步骤和重要的参数）。其中有些项目需要楚天进行更改：   * 工艺过程中需要有首件检测，目前还没有后面需要补充 * 楚天需要补充所有剔除工位的NOK counter * 数粒机的相机：是否可以区别所有颜色和它的限制在那里，需要提供细节 * 目前SCADA不能采集铝箔封口机的电压值，需要再讨论如何处理 |
| Ayanda technical communication  参加人：Martin, Holger, Sven, 立辉 | 2023-12-13  17:00-17:30  0.5小时 | 0/0 | - Spare part Sinagel  The parts will be shipped out on this Saturday  Airfreight  - Packaging Line (bottle line) in Assembly Process:  CAP screwing equipment  Unscrambler equipment  - Veggie / Sinagel:  Transport belt: repair the motor (heavy motor easily fall down) - to be improved  The oil spillage with the blower for cooling is causing significant oil spread to the complete area (a temporary solution is installed): the spread of the oil into the room is enormous)  The depth of the cavity for the die roll tool is not the same as the EU one. We have leakage issue.  Tool to measure the dimension of the die roll: caliber or which tool? - How to improve the cavity dimension measurement?  - Pharma-gel:  The drawings for format parts have been sent to Mr. Shi, what is the feedback? - to be checked  Newest info: the new equipment is working  - Drying process improvement (Markus is working on the drying process improvement and the testing of the samples. Results will be provided later)  - New washing machine: Need the size of different baskets (also vessel)  Current progress: the supplier is working on the concept and quotation. We need to confirm a few more technical information with Holger's team. (1st week of Jan 2024)   * The operation process * Quality requirements * Washing process time * The automation degree: what will be done by operator and what will be done by automation equipment   - Trip of Martin: 28th of Jan in Changsha |
| SCADA System Implementation  参加人：Haensel Floto, 锡盈，起骏 | 2023-12-14  15:00-15:30  0.5小时 | 0/0 | * The machine error at line 1 has been discussed: SIRIO team needs to check whether the WDS data is received or is this really a communication failure; Possible reason: cycle time too long due to communication tasks; * The MES required data needs to be corrected before Christmas; * The OEE related data will be provided soon; * The Line 1 improvement request needs to be reviewed and quoted. Floto will work on it; * The Line 2 issues have been received by Haensel and they know the list. There will be further feedback later. |
| Ayanda 包装线PFMEA讨论  参加人：Elisa, Sven, Martin, Tomasz, Holger, 楚天Sherry，楚天工程师，张峰 | 2023-12-14  15:30-19:00  3.5小时 | 0/0 | * The pressure sensor needs to be installed at the outlet area of the nozzle: risk is high and there is detection; * Format parts can be wrongly installed but the further process will not be possible: no change; * The cleaning air sucking system needs to have a status feedback to the controller; |
| SCADA数据应用：SIEPA软件在软糖中的应用讨论  参加人：庄敬，锡盈，西门子郑云总，西门子孟伟总，西门子刘晓总 | 2023-12-18  9:30-12:00  2.5小时 | 2/0  地铁到西门子，西门子地铁到公司 | 可以用SIEPA工具解决的问题：   1. 设备中软糖物料的实时计算，给软糖生产补料提供建议 2. 根据糖液的浓度检测值来调整温度和真空度的参数，控制阀门开度   西门子数据应用团队的看房：第一个问题是统计问题，可以通过机理分析提供实际物料情况的模型，第二个问题是大数据问题，可以用SIEPA中的机器学习算法来进行建模。  后续西门子会组织数据应用团队，仙乐组织工艺为主的团队组织现场调研，而后进行进一步的解决方案的探讨。 |
| Packaging Line Meeting  参加人：Martin, Tomasz, 张峰 | 2023-12-19  15:30-16:00  0.5小时 | 0/0 | 1. Blister Line: 本周设备到达Ayanda工厂。1月份Uhlmann到Ayanda进行设备连接等等工作 2. 防火墙问题：由于目前的墙没有按照质量进行施工，所以目前不具有防火功能，现在已经有了补救方案实施中 3. 审核：后面包装线投入使用，有很多的客户要来审核，每个客户的审核准备等等工作要很多时间，明年会有很多类似的工作 4. 当前新的office已经安排满，没有空余，整体比较紧张，目前不同同时共享办公室 5. 峰总和Martin重新确认行程，后面会帮助协调安排 |
| Ayanda 包装线PFMEA讨论  参加人：Martin, Tomasz, Stefan, 楚天Sherry，楚天工程师 | 2023-12-20  15:30-19:30  4.0小时 | 0/0 | 1. The compressed air blowing into the room needs to go through a filter of 0.2um. This is the law else there will be no certificate. 2. The dirty air out of the bottle needs to be sucked and filtered also with 0.2um filter. The filtered air cannot be released into the mechanical structure area of the machine. 3. Insufficient material: traffic light should show alarm message 4. Glass material needs to be checked and provided 5. The weighing system needs to be connected to SCADA, which should ensure correct parameter setting 6. The sensor for NOK container counting needs to be installed 7. The limitation of the metal checker needs to be checked out |
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总计：24.5小时

工作时间：22.5小时

差旅时间：2.0小时