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**TOOL CONTROL SYSTEM / 工具安全管控系统**

Tool control systems are very important due to 2 main reasons: avoiding economic waste or loss due to careless tool stock management; and for FOD safety.

Foreign Object Debris (FOD) is a substance, debris or article alien to a vehicle or system which could potentially cause damage. Foreign Object Damage (also abbreviated FOD) is any damage attributed to a foreign object (i.e. any object that is not part of the vehicle) that can be expressed in physical and economic terms and may degrade the product's required safety or performance. FOD is an abbreviation often used in aviation to describe both the damage done to aircraft by foreign objects, and the foreign objects themselves.

"Internal FOD" is used to refer to damage or hazards caused by foreign objects inside the aircraft. "Tool FOD" is a serious hazard caused by tools left inside the aircraft after manufacturing or servicing. Tools or other items can get tangled in control cables, jam moving parts, short out electrical connections, or otherwise interfere with safe flight. Aircraft maintenance teams usually have strict tool control procedures including toolbox inventories to make sure all tools have been removed from an aircraft before it is released for flight. Tools used during manufacturing are tagged with a serial number so if they are found they can be traced.

In order to provide an effective and safe tool control system, ACO offers a wide range of products and services.

工具安全管控系统，是工具管理重要手段。

一方面，可以避免经济浪费或者由于库存管理的失误导致的损失。

另一方面，就是外来物（FOD）安全。外来物（FOD）是可能损伤系统或产品的某种外来的物质、碎屑或物体。外来物损伤（也称FOD）即任何由于外来物引起的损伤，可以是物理上的损伤，也可以是经济上的损伤，有可能会降低系统、产品或运输工具的安全和/或性能。

例如：

在航空领域，“内部FOD”是指在航空器内部由于外来物引起的损伤或损失。“工具FOD”是指在作业或服务后，遗留在航空器内的手工具，引起的严重危险。手工具或其它物品可能会与控制电缆缠在一起，阻碍运动部件，造成电线短路，或者影响飞行安全。机务保障与维修团队通常执行严格的工具管控程序，使用安全工具箱，确保飞机起飞前所有工具已安全撤离。作业过程中使用的工具必须标记上序列号，以便被发现时可以追溯。

为了提供一个有效的工具安全管控系统，奥戈工具设计与提供多种多样的专业产品与服务。



## 1 BI-COLOURED EVA FOAM TRAYS (EVA泡沫)双色托盘

All tools perfectly fit their position in the tray, while missing tools can be easily and quickly identified at first sight.

所有工具完美安放于托盘的设定位置上，鲜明的双色对比，一旦有工具遗失，一眼就可发现，容易识别。



## 2 CUSTOMIZED EVA TRAY DESIGN 量身订做的托盘设计

If the standard ACO sets do not match your tool set requirements, just inform us about your personal selection, and we will customize bi-colored foam trays manufacture for you.

如果奥戈工具的标准托盘套件无法满足您的工具套件要求，请说出您的要求，我们将按需订制您的双色托盘。



## 3 LASER ETCHING / MARKING SERVICE 激光标刻服务

ACO can laser mark your tools with different logos or division numbers, perfectly identifying which specific tool belongs to which company, division or team, avoiding common mix-ups.

奥戈工具可以为您选购的工具，用激光标刻不同的图案或号码，完美辨认出哪件工具属于哪家公司、哪个部门或团队，避免一般的出错。

## 4 TOOL TRACKING SOFTWARE 工具追踪软件

奥戈工具提供独一无二的工具管控软件，它将控制哪件工具被取出或放回工具车“仓库”，或者谁在什么时候取用了哪件工具。这个功能由我们特别设计开发的ACOWare 工具管理软件来实现。这个管理工具在用户的意识里创造出工具管理的习惯，可以减少超过90%的工具损失。

如果你有兴趣了解更多有关奥戈工具的工具安全管控系统的内容，欢迎随时联系我们。

ACO also offers a unique stock control system, that will control which tool is taken from or returned to the stock, and who is in possession of each tool at every moment. This is done through the specifically developed "ACOWare" tool control software. This management tool creates a tool control consciousness among users, reducing tool loss by over 90%.

If you need quotation or further information on any of above tool control systems, do not hesitate.



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## TOOL CONTROL SYSTEM / 工具安全管控系统

In face of the risks and costs that loss of tools generate, ACO has developed a range of smart roller cabinets to control the tools. These will allow to have the tool located at all times, reducing the costs associated with the loss thereof up to 90%. In addition it will provide a robust system for FOD(risk of forgetting tools in sensitive sites), such as in aeronautical maintenance.



Simply select the TCS roller cabinet you want, the tools that would be included in it, and ACO will configure both trays and software, in a customized way. The prices of the roller cabinets do not include the tools, which will be invoiced separately depending on the composition requested.

### TCS工具管控系统订制

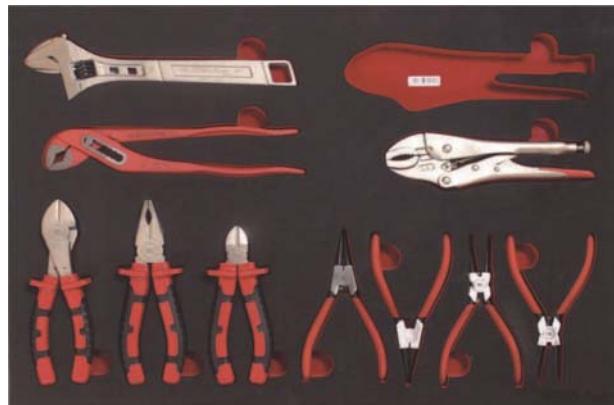
方案一：标准组套管控。用户从第10章选择自己所需的工具组套（可增减数量），然后由奥戈工具客服人员协助完成TCS工具系统。

方案二：用户自主选择所需的奥戈工具清单，由奥戈工具客服人员配合完成TCS系统配置。

方案三：用户选择现有的TCS标准硬件套餐，然后提出所需奥戈工具明细，再由奥戈工具客服人员完成配置。

方案四：用户也可按需单独订购奥戈工具和其它硬件(不订购工具车)自行使用。

整套TCS系统，客户收货即可使用。欢迎向奥戈工具客服人员索取相关的视频资料参考。



The roller cabinets presented include.

- \*Roller cabinets with tools
- \*Bi-coloured trays customized
- \*Tool control software
- \*Tool control hardware
- \*Data upload

TCS工具系统包含：

- \*工具车和工具
- \*订制双色托盘
- \*工具管控软件
- \*工具管控硬件
- \*上载的数据

用户可单独订购以下硬件：

3501848	scanner USB 电缆扫描仪	3501852	Tablet PC & ACOWare 平板电脑、 工具追踪软件
3501849	scanner wireless 无线扫描仪		



### TCS工具管控系统标准硬件套餐

83506995	730x475x1030工具车 scanner USB扫描仪
83506996	730x475x1030工具车 scanner wireless扫描仪(无线)
83506997	1413x560x1075工具车 scanner USB扫描仪
83506998	1413x560x1075工具车 scanner wireless扫描仪(无线)

