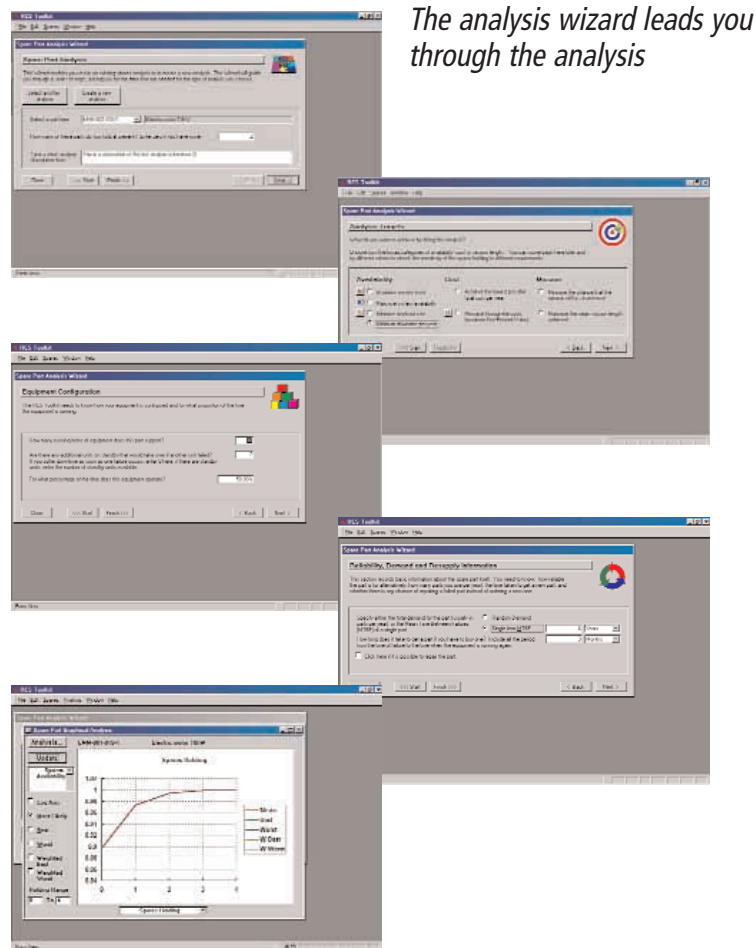


# RCS

## Introduction

Reliability-centred Spares (RCS) helps engineers and stock analysts decide on the right stocking policy for spare parts. It is targeted specifically at decisions involving high cost, slow moving spares where the decision is often whether to stock no parts or one or more parts.

Too often initial stock decisions are based on the recommendations of the manufacturer and on guesswork. Inevitably the inventory compiled is not optimal and parts are held that are never used.



The analysis wizard leads you through the analysis

***“The traditional approaches fail because they do not adequately answer the most fundamental question: is it worth buying a spare part?”***

# Reliability-centred Spares

*...accurately matching spare parts holdings to maintenance and operational needs*

## The benefits of successful RCS implementation

- **Consistent Process**
- **Optimum stock levels**
- **Reduced capital tied up in spares**
- **Reduced risk**
- **Better store performance**
- **Improved maintenance performance**
- **Greater Maintenance Cost Effectiveness and Efficiency**
- **Powerful procurement contract negotiation tool**
- **Third party stocking option analysis**
- **Better relationships with suppliers**
- **Comprehensive Database**
- **Transparency of Process with Audit Trail**

Modern engineering stores hold a wide range of parts from cheap consumables used in the thousands per year to critical insurance spares costing tens or hundreds of thousands of dollars which may never be used over the entire life of the plant.

Up to 50% of inventory value may consist of spare parts which are used at a rate of less than one per year; parts to the value of 10% to 30% of the inventory can sit on the store's shelves for a whole 25 year plant lifetime.

Taking a financial view, perhaps these parts should never have been purchased. On the other hand, if they were not available when needed, the business could suffer severe downtime consequences.

## The RCS Process

The Reliability-centred Spares method consists of a series of questions starting with the ways in which equipment can fail (failure modes), moving through the effects of failure and the effects of a parts stockout (part unavailability) to setting the correct stocking policy for each spare part.

The objective of RCS is to buy stock that is essential for plant operation and to reduce or completely eliminate stock that is unnecessary or can be more effectively held by a vendor or other third party.

## RCS Five Basic Questions

- **What are the maintenance requirements of the equipment?**
- **What happens if no spare part is available?**
- **Can the spares requirement be anticipated?**
- **What stock holding of the spare is needed?**
- **What if the maintenance requirements can not be met?**

RCS is applicable to any engineering inventory whether fast moving consumables or slow moving insurance spares.

RCS not only recommends the right stock holding for your organisation, but also allows you to see the effect of uncertainties in downtime costs, part costs and lead times. You can be confident that the decisions you make with the RCS methodology are robust and auditable.

## How We Can Help

The Asset Partnership's highly experienced RCS team offer world class RCS Training, technical support, consulting and project planning and management.

Our world class suite of training programs give delegates an unrivalled understanding of the fundamental logic and processes of asset management principles.

## What happens if no spare is available?

RCS bases the stockholding decision not on manufacturer's recommendations, or on engineering judgement but on what happens if no part is available. This step in the process makes it possible to decide whether the stockout matters, and hence what resources are needed to reduce the risk of the stockout occurring.

Like RCM, RCS recognises four categories of consequences:

- **Hidden Failures (Increased Risk):** The failure (for RCM) or stockout (for RCS) itself has no direct consequences, but we are exposed to an increased risk of the consequences of another failure
- **Safety or Environmental:** The failure or stockout has direct consequences which could hurt or kill someone, or lead to the breach of an environmental standard
- **Operational:** The failure or stockout will have some adverse effect on operational capability
- **Non Operational:** Where the only cost is the cost of repair and obtaining parts.

The RCS decision diagram leads the analyst through the decision making process of stockout consequences to an appropriate stocking policy.



## World Class Training in RCS

Our RCS training program, delivered under licence to iSC, provides a **Two Day Introductory RCS Program**, including an indepth background to spares calculations and practical case studies on calculating optimum spares holdings using manual and software based methods. This ensures our delegates clearly understand the algorithms supporting the RCS Toolkit software.

## Reliability-centred Spares:

*"a process used to determine the right engineering spares to maintain to support the maintenance requirements of any physical asset in its operating context"*

The RCS process asks five questions:

- *what are the maintenance requirements of the equipment?*
- *what happens is no spare part is available?*
- *can the spares requirement be anticipated?*
- *what stockholding if the spare is needed?*
- *what if the maintenance requirements can not be met?*

RCS is based on Reliability-centred Maintenance (RCM), the method of choice for setting the equipment maintenance policy. Because RCS takes into account both **commercial** factors *and* **maintenance** requirements, you can be certain that your spares holdings are right for your organisation.

RCS will automatically take your RCM Toolkit outputs for seamless calculation of your stock analysis options.

# Reliability-centred Spares

**The Asset Partnership** is proud to be a member of the **ALADON** world wide network of licensees, the recognised leaders in Reliability-centred Maintenance training and application. RCS is a derivative of RCM.

We offer advice and training in an integrated suite of practical solutions designed to minimise operational, safety and environmental risk, maximise profit, and minimise asset management and maintenance costs.

**The Asset Partnership** is the Australian distributor for **sparesFinder**, the unique service able to quickly and easily link engineering inventories between sites and companies anywhere in the world.

Other services offered by The Asset Partnership include:

- A comprehensive suite of world class Reliability-centred Maintenance II and advanced asset management training courses
- A comprehensive suite of world class Reliability-centred Maintenance II and advanced asset management training courses
- RCM Toolkit - the specialist RCM II software to facilitate rapid and accurate RCM II analysis
- Operational Reliability - the ability of an organisation to operate in reliable, safe and consistent manner
- General asset management consulting, including strategy, culture, structures, systems and performance
- Risk management training and QRA Toolkit software.

For further information about us and our services, visit our web site at [www.assetpartnership.com](http://www.assetpartnership.com)

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# RCS



*Accurately matching spare parts holdings to maintenance and operational needs*

