



# Why Standardisation Matters in the Oil and Gas Industry

White Paper



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# Project Specification

Why standardization matters and how your next project can benefit



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Oil and gas procurement can be an extremely sophisticated process due the multitude of strict regulations, rigorous working conditions faced by all assets.

Tenders for major projects can be extremely challenging, in order to ensure that the end client achieves the most efficient and cost effective solution.

However, there is one major area that is often overlooked and that relates to standardisation.

In today's market, project sizes are continually increasing. What we would consider a 'mega' project five years ago is now a medium size one.

As a result, most oil and gas companies decide to split these jobs into different packages resulting in the involvement of several EPCs (Engineering Procurement and Construction) on a single project.

Add to that the number of new suppliers that have emerge in the last ten years and you find yourself in a difficult environment to implement standardization.

For example, if a project does not specify 'single source supplier' for specialist areas, such as instrumentation compression fittings, then there is a danger these will be chosen from a combination of different manufacturers. If this is the case, then the end customer may find that their project is being put at risk.

## **Why it's good practice to state single source instrumentation supply in the specification?**

Although instrumentation tube fittings represent a very small volume on a project, they have always been considered critical components of a safe system.

The dangers resulting from a failing connection can be devastating in terms of human injuries, infrastructure damage or loss of production.

These dangers are even greater today as the industry requires higher working pressures in more



lethal environments such as sour services with increasing H<sub>2</sub>S content.

## **Guaranteed assets performance**

There are many advantages to standardizing when it comes to essential components, such as instrumentation compression fittings.

Firstly, it avoids the risk of mixing different manufacturers' products and here, the different specifications, materials and flow rates, may affect performance of the asset even though they may be manufactured to the same industry standard.

Many don't realise that multi-sourcing on critical assets can potentially compromise the safety of the whole project.

Sourcing from a single supplier will mean that all the components within the system will have been tested to the required standard and because of this they will be able to supply documented evidence of this.

If just one of these components are then sourced from another supplier, for example by a sub-contractor on site, it means that the test results are no longer valid. In this industry, where safety and performance are critical, there are definite benefits to partnering with a supplier that can supply a complete range of components, backed up by test data.

Where, for example a system is required to be NORSOK certified it may be a mandatory requirement to source from a single, specialist company and compromising this could have serious consequences.

### **Lower stock inventory**

Another major benefit for the end user is that if fittings are selected on a project from a single

manufacturer then there are lower stock inventory requirements. This helps the customer to reduce the risk of mixing different manufacturers components on site as well as keep stock levels down, making it more cost effective in the long term.

### **Consistent quality**

Thirdly, standardization means it delivers a more consistent quality throughout the project. The end customer is guaranteed the performance of these projects by the manufacturer, providing extra reassurance and peace of mind.

### **Economies of scale**

Another very good reason to stick with single source supply for fittings is due to the benefits the customer can gain in terms of economies of scale. By supplying a larger volume of components, manufacturers like Parker, can deliver a more cost effective solution.

### **Tailor made solutions**

When a single supplier is specified it ensures that the instrumentation manufacturer can provide a completely tailor made solution.

The supplier therefore takes greater ownership of a project, providing a completely dedicated service with much greater benefits to the end customer.

A supplier with a global approach and network can then help the end user to implement its standardization specification throughout the entire project via any package vendor.

Consider, too, that there are many difficulties with sourcing

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— Tareq Abdelrazek,  
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from multiple suppliers because it can be very challenging for end customers to keep track of the components that are being installed on site, especially where there are several sites over large geographical areas.

Without customers carrying out rigorous, continuous checks throughout the process, there is no way of knowing that quality fittings are fully tested and guaranteed to work together, when they are sourced from multiple suppliers.

It is very much in the hands of individual engineers, some of which may not have been audited, assessed and approved by the end customer, therefore putting the whole project at risk.

Protecting the integrity of projects There are a number of approaches that could be taken by the end customer to protect the integrity of their project.



### **Specifying single source supply**

First and most importantly, as mentioned, the customer should specify single source supply in their specification. This does not mean, necessarily, mentioning a manufacturer by name, but just to be clear that whichever manufacturer is selected, they will be the sole supplier of the complete fitting solution.

Often there are 10 or more approved vendors on a supplier list for oil and gas projects. This can potentially mean that there could be 10 or more manufacturers on site, leading to issues with quality and control. Good practice suggests that having 3-4 manufacturers on an approved supplier list provides enough choice to ensure that competitive approach, but with less risk of intermixing of fittings.

The EPCs will usually issue a tender at the early stages of a project as part of a framework agreement.

The onus is on the customer to ensure that this is implemented right down the chain, specifying single source supply and ensuring this is recognised and understood by all sub contractors.

There should also be controls and methods of checking in place down the line to assess this. A transparent and collaborative system always works best as it means the manufacturer can work with the package vendor to deliver exactly what is specified.

This usually leads to good collaborative working where all parties are clearly focused on delivering a robust and compliant solution.

### **Maximising safety and reducing risks**

Single source supply does not only make commercial sense too. Safety is paramount in the oil and gas industry and there could be potentially huge risks from intermixing of components from

different manufacturers, which could compromise the integrity of the project.

Only by specifying single source supply of fittings at the start of the project, combined with robust checking procedures, will customers be able to ensure that the practice of intermixing is ruled out in the industry. The ultimate beneficiary will be the oil and gas operators who will be assured they have effective high performance products that maximise safety and reduce risks.

