

Why Choose ISO Cylinders ?

The concept of standardised cylinders has been around for many years but what are the advantages/disadvantages ? In the early days of pneumatics manufacturers designed their own unique cylinders which were only available from them.



Most of the time this was OK but if they didn't have a replacement readily available or a machine went overseas it may have been impossible to source a suitable replacement, so along came the concept of standardised cylinders. The aim was for manufacturers to all design to common dimensions so that cylinders could be interchanged without having to make modifications to machinery when retro fitting.

Standardised cylinders - advantages & disadvantages.

From a manufacturers point of view cylinders can easily be changed to a competitors which is seen as a disadvantage, but competitors cylinders can easily be changed to that manufacturers cylinders which is an advantage.

From an end users point of view being able to source a replacement cylinder from multiple suppliers means better availability and lower prices because the cylinders are now all the same, aren't they? Unfortunately just because they are the same dimensions doesn't mean that they are the same, more on this later....

Standardised cylinders are a great idea for most applications but if you only used standard cylinders then you would not have access to rodless cylinders, compact cylinders, slide units etc. etc. You also need to be aware of which 'standard' cylinders are readily available in Australia because some suppliers will try to lock you into a 'standard' that is only available from them.

Probably the best summary would be to use 'standard' cylinders wherever practical (ie. they don't restrict machine design) but make sure the standard you have chosen is readily available.

ISO Standards

The most readily available standard cylinder design is ISO but

even this has changed over the years.

Years ago the ISO standard controlled the dimensions of a cylinder but on the larger sizes (32mm bore upwards) the dimensions were with mounting brackets fitted. This meant that the PCD of the bolts holding the cylinder together were not tied down and not all manufacturers were exactly the same. So, the cylinder was 'interchangeable' but only if you included new mounting brackets or opened out the holes in the old brackets ?! Typically brackets don't wear out so there was unrest in the marketplace because to change supplier of an 'ISO Standard' cylinder you also needed to buy new brackets so a new standard appeared, VDMA (German Machine Builders Federation). The ISO VDMA standard controlled the dimensions of the bolt holes and made the cylinders truly interchangeable. The latest ISO 15552 incorporates the VDMA dimensions and is now the standard to look for although anything made to ISO 6431 VDMA will be interchangeable.

Are all ISO 1552 cylinders the same ?

In terms of mounting dimensions, yes they are the same. In terms of operating life, load carrying capability, materials used, aesthetics, availability and price they can be very, very different.

Independent tests have shown, for example, that Metal Work cylinders will outlast our major competitors by a factor of at least 2, yet they are a similar if not lower price.

Our new design uses an extruded body that will accept the latest miniature sensors and also the older design that clamps onto the corners of the body. This allows retrofitting to an existing application without forcing the end user to change sensors at the same time.

Two different body profiles are available but a common end-cap design is used to minimise stockholding and keeps costs down.



To find out more information about our ISO 15552 cylinders and how they can help you reduce costs then please contact your local Metal Work office or visit our website www.metalwork.com.au