INTRODUCTION

It is quite common for an organization to want to adopt some technology offered or used by some other organization or to make its own copy of a piece of equipment which is offered commercially at a price which greatly exceeds the cost of manufacture. Usually there will be some uncertainty as to whether some legal protection of the item exists which could result in legal action.

The present paper discusses the types of legal protection which might exist, or have existed and the circumstances which will permit copying. The issue is considered mainly from the position of making items for in house use (e.g. spare parts for existing equipment, or copying commercially available items for own-use rather than for sale) but most of the considerations and restrictions will be similar when making items for sale to others.

It must be stressed that this paper only gives a guide to the issues which must be considered before copying can be safely undertaken. In some cases the information contained here will be sufficient, but usually it will still be desirable to seek professional advice before commencing to copy.

INTELLECTUAL PROPERTY PROTECTION

The purpose of intellectual property protection is to encourage invention, design improvements and artistic endeavour by rewarding the creator with exclusive rights to the commercial use of the property for a finite period of time. In return for this period of exclusive use, the property is to be free for exploitation by any one at the end of this finite time.

Therefore, once the period of protection has expired there is no legal or ethical constraint on others using the concept which was protected. Indeed, in the case of patents (which is usually the most important type of protection for industrial equipment and processes) there is a specific requirement that the means of performing the invention be described in sufficient detail to allow others to reproduce the results.

The second general point about intellectual property protection is that it generally requires a formal regulation process to have been undertaken (the exception is copyright). Therefore, if the originator of some industrial equipment or process has not registered the concept, there is no constraint on others copying it. However, as will be discussed below, determining whether such registration exists can often be a very difficult procedure.

Thirdly, most types of intellectual property are of a national nature. That is, for most types of protection (again copyright is a partial exception to this) the registration process must be undertaken separately in each country to be effective there. So if the concept which one wishes to use is known to only be protected in certain foreign countries, one is free to use it in Australia or New Zealand, but there might be constraints on the export of products made using the concept to countries where it is protected.

So, in summary, if the concept is sufficiently old, or has never been registered in the country of interest, then there is no constraint on copying the concept. As will be seen in the remainder of this paper, the practicalities in determining whether one of these conditions applies are usually more complicated.

Patents

Patents are concerned with the protection of the idea (or inventive principle) of how something works or is made. Typically a patent is for a device and/or for a method of making such a device. In recent years, a number of countries, including Australia and to a lesser extent New Zealand, have recognized computer software and business methods as being suitable subject matter for patents.

Under current legislation in Australia and New Zealand, a patent is valid for a maximum period of twenty years from the date of filing.
of the complete specification, and the complete specification must be filed within twelve months of a provisional specification from which it claims priority. For a patent to remain valid, it is necessary for periodic renewal fees to be paid. If these fees are not paid, then the patent will lapse and become unenforceable. Under certain circumstances a lapsed patent can be restored, but if this happens any acts which were performed while the patent was lapsed will not retroactively become infringements. There may still be some patents in force from under the previous patent act which have a different period of currency, but in general if something has been public knowledge for more than twenty-one years then it will no longer be protected by a patent (in USA the situation is much more complicated as under previous legislation there were means of keeping patents 'in limbo' indefinitely before they were examined).

Registered designs

Registered designs protect the appearance rather than the functionality of objects. Provided that the exact appearance of an item is not important, registered designs are not likely to prevent one from copying the function of an item. Difficulties might arise where the registered design covers the way that items fit together (e.g. a bayonet or snap-lock fitting) registered designs of this type are permitted in some jurisdictions but not in others.

Registered designs are valid for a period of up to eighteen years from the filing of an application (which may claim priority from a provisional patent specification filed not more than twelve months earlier).

Some jurisdictions, notably the European Patent Union, have introduced a limited measure of protection for unregistered designs (similar to copyright). The protection is only for a limited period and there is no equivalent protection in Australia or New Zealand.

Trade marks

Trade marks relate only to the branding of the goods, not to the inherent features or functionality of the goods. Therefore they are not likely to be a consideration when making goods for own use or even for sale. The only exceptions are when there is an intent to pass the goods off as made by the original supplier (which is always illegal) or when making spare parts or accessories to suit an item made by some one else. In the latter case there are limited rights to apply the form of the trade mark, but such issues are beyond the scope or purpose of the present paper.

Copyright

Copyright is a much more complicated issue than the forms of protection previously mentioned. Copyright does not require formal registration and in many ways it can be considered as having international effect. Copyright protection lasts for at least fifty years (now seventy five years in USA) and under some circumstances this can be from the date of the death of the ‘author’ rather than from the date of execution of the design. In practical terms, this means that any industrial item which is still worth copying will be within its period of protection by copyright.

However, the extent of protection which is afforded by copyright over industrial items is rather small. Copyright protects the specific expression of an idea and is limited to literary and artistic works (although the standard of literary or artistic merit is not a consideration). Therefore the actual words used in a novel and the characters developed there will usually be protected by copyright, but (in general) there is very little protection of the plot. In industrial terms, this means that any processes are not effectively covered by copyright, but there may be some indirect protection of physical items.

An exact copy, made directly from the original item will not usually infringe copyright provided that at least 50 originals have been made worldwide.

A functional equivalent rather than a direct copy will not usually infringe copyright per se, but if an intermediate drawing of the original item is made (e.g. to assist in the preparation of drawings of the functional equivalent) then

* An exception, which is very unlikely to be of relevance to the pulp and paper industry, is for drugs. Under certain circumstances the patent for a drug can be extended further, but even this would not apply to a non-therapeutic use of a substance patented as a drug.
the intermediate drawing may infringe the copyright of the drawing from which the original was made. Therefore the drawings of any functional equivalent should always be prepared ‘from scratch’.

DETERMINING WHAT PROTECTION EXISTS

Once the existence or non-existence of registered protection has been established, the freedom to act is usually fairly straightforward to determine. The difficult step is in determining what protection exists.

The requirement is to find whether the item is protected by a current, or lapsed but potentially restorable, patent or registered design in Australia or New Zealand or in any country to which products made using the copied item may be exported. Although the manufacturer may print ‘Protected by Patents’ or ‘Patent Pending’ on items, he is not obliged to do this, and the statement may only refer to the position in the country of manufacture but not in the country where the item is sold.

Although a search of current Australian patents may seem the obvious place to start, there may be advantages in also looking at current and lapsed patents in other countries as well. In particular searching the USA patent system can be very rewarding for several reasons. Firstly, more patents are issued in USA than in any other country and so most items patented in Australia will also be patented there. Secondly, the US Patent Office database is comparatively easy to search and full texts and drawings of every US Patent ever issued can be downloaded over the internet. Also once a US Patent is located it can be used to determine the ‘priority document’, which is usually a provisional patent filed in some country, and this can then form the basis of a more focused search in Australia.

The most desirable result would be to find a patent which describes exactly the item which one wishes to copy and to find that either it was filed thirty years ago and is now expired, or that it was filed in USA and France, but there is no corresponding Australian filing (this will require checking of filings by the same inventors, as a different priority document may be claimed in Australia). With this type of outcome one has a high degree of confidence that the appropriate patented invention has been found and that there is no current patent for the item in Australia.

A much more difficult situation arises when the relevant patent cannot be identified readily. In this case a number of approaches can be used until the relevant document is found, or lines of attack are exhausted. Failure to find a patent is in many ways the least satisfactory outcome as one can rarely ‘prove a negative’ and it is possible that a patent does exist even though it could not be identified. However, if a thorough attempt has been made to find a relevant patent and there is subsequently an infringement claim made on the basis of a patent that was missed, the case should be considered as one of innocent infringement and all that will be required is that one desists from further infringement, or pays royalties.

Although searching can be undertaken on official databases of relevant patent offices and on other specialised databases, it must be recognised that there are errors on all such sources and a negative result can never be fully conclusive.

The obvious place to start a search is on the name of the manufacturer as the owner or assignee of the patent. This will often be successful but there are a number of reasons why it might fail:

- The company known to sell the product may be merely an agent, or manufacturing under licence.

* In most countries, patent protection not only gives exclusive rights to make or use the invention, but it also protects against importation of products made using the invention. However this protection against imports is not absolute. In some countries (e.g. Indonesia) a patent gives little or no protection against imports. In many countries (including Australia) protection may not be afforded against products in which the invention is used in an ‘incidental manner’, for example importation of a pump with a patented impeller would probably be protected against, but there would probably not be protection against importation of a pump painted with a paint manufactured by a patented process – unless that paint made some real contribution to the performance or life of the pump.
• With groups of companies, the one selling the product may not be the one which originally filed the patent.
• Some large groups of companies file most or all of their patents through a separate ‘technology company’ which does not otherwise trade and does not have a familiar name.
• The patent may be assigned to different organizations in different countries.

Sometimes there can be benefits in searching in the name of a known (or strongly suspected) inventor. By law, in almost every country, the name(s) of the actual inventor(s) must be recorded. Obviously this will be less useful if the inventor is Bill Smith (which might appear in different countries as: W Smith, William Smith, W. G. Smith, Bill Smith etc).

Another possibility is to search under the type of equipment or process. This can be done in two ways, but both have difficulties.

Firstly, one can search on the title of the patent. Sometimes this is helpful, but most patent attorneys try to use rather vague titles because the title is published long before other ‘technical’ details and it is not desirable to give away too much information to the patentee’s competitors earlier than is necessary. Some of the commercial data bases have overcome this by providing a descriptive title as well. This is a considerable help, but there is still the problem of guessing what the abstractor might have called the device. For example, a column packing for scrubbing flue gases may be described as: packing, column packing, shaped material, absorber, adsorber, scrubber, gas cleaner, contacting device etc).

Secondly, one can search under classification numbers. These classifications are assigned by the patent examiner to describe the field of invention. There is an international classification system used by most countries including Australia, New Zealand and Europe, but a number of countries (notably USA) have their own schemes which do not accord well with the International Classification. This system can be very helpful, the classification guide (which runs to several volumes and is available to access on the internet) comes down to quite specific categorisations and even advises which number should take precedence in borderline cases. However, again there can be difficulties:
• For common items (e.g. centrifugal pumps) there can be a very large number of records to search through.
• The classification number is a fairly long alpha-numeric, and errors can be made in assigning or copying the number.
• The classification system is updated every few years. Strange as it may seem, this is not just a case of abandoning some numbers and adding some new ones, sometimes numbers are reassigned to new purposes. The data bases of patents are not updated to the new numbers, so care is required in ensuring that a search is on the right numbers for the time of the issue of the patent. (This sounds alarming, but in practice the number of groups so affected is rather small).

Occasionally other search strategies can be useful, particularly on the US Patent Office database which includes such information as the city and state of the address of the inventors and the assignee.

FURTHER CONSIDERATIONS

Having established that the device that it is desired to copy was covered by a patent which expired several years ago, there are still some further checks to be made to ensure that all of the relevant protection has been found.

The first thing to check is that what is to be copied is only covered by the original patent and that there are not some later improvements which have been patented separately. Obviously, if you do not want to include these improvements there is no problem, but finding the improvement patents can be difficult. It is possible that the improvements will have been patented by a successor, an agent or even a competitor of the original patentee (sometimes competitors will patent a really useful improvement to try and force a cross-licensing arrangement). In other cases companies will seek narrower geographic protection for an improvement than for the original invention, and Australia may not be covered.
Another point is to check is that although the total machine is not protected, there may be protection for some particular part(s). For example, there may be no patent protection for the whole pump, but it is still possible that the impeller is patented, and the patentee may not be the pump manufacturer.

Finally, special consideration must be given to the issue of spare parts. The law on this varies between different countries, but in Australia and New Zealand it is generally the case that if you have purchased a patented machine, you are entitled to make spare parts for it. However, there is one very important exception, if the spare part is itself subject to protection by trade mark or registered design, then it cannot be copied. Manufacturers will often separately protect high-cost wear parts for this very reason, and it is an area where registered designs are applicable as no ‘inventive step’ is required and the registered design can cover the way that parts fit together (also useful for appearance of things like car hub-caps, because few people want to buy a replacement which looks different from the other hub-caps).

**CONCLUSION**

In most cases, if the patent on an item has expired, or the item has never been patented then it is permissible to copy the item. However the greatest difficulty is in finding whether a patent exists. The most favourable outcome of a search is to discover that the item is only patented overseas, or was patented in Australia but that the patent has now expired. If a patent is not located the difficulty is in knowing whether no patent ever existed, or whether the search has not been sufficiently thorough. However, provided a reasonably diligent search was performed without success, the courts are unlikely to impose a penalty beyond an order to desist infringement if a case is subsequently bought.