

# PB NEWSLETTER

## Pacific Bladeware



F-S 180BMoD



KM 5000

**When the time and place demands quality**

Please visit our website for further information and to view our range of Military knives and Pocket Rescue Tools at [www.pacificbladeware.com](http://www.pacificbladeware.com) or +61 (7)4055 7939

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PO Box 25 Yorkeys Knob QLD 4878 Australia Tel: 07 4055 7939

Email: [sales@pacifcbladeware.com](mailto:sales@pacifcbladeware.com) Web: [www.pacificbladeware.com](http://www.pacificbladeware.com)



My apologies for the late newsletter, in fact the first of 2011. For many businesses 2011 has been a very slow year so far. Nonetheless, even though the Australian economy is not yet fully recovered, we have steadily increased our business sales thanks to a growing clientele both here in Australia and overseas.

*Jim McKay, Pacific Bladeware*

### STOCK CLEARANCE SALE



In order to expand our military stock and introduce new models, we have decided to reduce some of the other non-military brands that we carry. To this end, **PacBlade** is holding a stock clearance sale. This sale is an excellent opportunity for knife enthusiasts to enhance their collections for the lowest possible price. It is your gain and our loss because, in order to either remove or reduce the following brands, we have dropped them down to [rock bottom prices](#).

Therefore, the following brands are **reduced right down** in order to make way for new models. All **Boker, Condor, Smith & Wesson, Jim Wagner, Ibberson knives, Eickhorn PRT's (Pocket Rescue Tools), Fairbairn Sykes PMPT engraved knives and selected Eickhorn items** are reduced, as are all **Terralux products**.

Remember that even though these items have been dropped to rock bottom prices they still come with a full manufacturers warranty against materials and workmanship. So, for the customer, it is a 'win-win' situation, you really can't lose; a top quality product for the lowest price ever with full guarantee. Now it just doesn't get better than that.

[The new prices for the clearance sale will gradually begin to appear on the website from the END OF JULY so don't miss out on this once in a lifetime sale.](#)

### An update on the promised William Rodgers 1<sup>st</sup> Pattern F-S Knife

I know that I have been rattling on about this for more than a year, but I now have word from WR that the expected Commemorative F-S 1<sup>st</sup> Pattern Fighting Knife is finally on the way. They just have the few last details to take care of and then it is full-on production.

I have no word on exactly how many units will actually be made but, from earlier discussions with the bosses of WR, it will be a limited edition. Once I have more positive details we will then send out a circular to our subscribers first prior to placing them on the webpage.

# INTERESTING STEEL FACTS

To manufacture steel, iron has to be heated to around 2800 degrees Fahrenheit. Then the molten iron is blasted with high pressure oxygen to burn out the bulk of carbon molecules. The end result is steel.

Too much carbon content in steel makes it very brittle and unreliable. Too little, means that the steel will be malleable. Hi-carbon steel contains roughly between 0.6% and 1.5% carbon.



- Carbon:** Present in all steels; although there are other elements that help in the hardening of steel, carbon is the most important and also helps increase the overall strength of the steel.
- Chromium:** Added for wear prevention, hardness, and corrosion resistance. Steel with more than 13% chromium is usually referred to as being 'stainless'.
- Manganese:** Aids the formation of grain structure and contributes to the hardness, strength and wear resistance.
- Molybdenum:** Prevents brittleness in blades so that they hold an better edge.
- Nickel:** Added to aid in corrosion resistance and increase strength.
- Silicon:** Another contributor to strength and makes the steel more sound while it is being Manufactured.
- Tungsten:** Increases wear resistance.
- Vanadium:** A Contributor to wear resistance and hardness and helps produce fine-grained steel.

## **Heat treated to produce exceptional properties:**

Heat treating is used to impart special qualities to the steel such as the hardness, strength and ductility. When heat and subsequent cooling are applied to the steel, the physical and structural properties are changed. As different steels have different chemical compositions, so changes in physical and structural properties take place at different, critical temperatures. Depending on the temperature used, these changes can be an alteration in grain size, increase in toughness, removal of internal stresses or formation of a hard surface on a ductile core.

In addition to changes induced by heat, the rate and method of cooling have an effect on the structural properties. For example, a rapid cooling will produce steel with a hard structure while a slow cooling will produce the opposite effect.

# Some of the More Popular Types of Steel Used in Knife Making

The quality of steel is determined by the various proportions of certain elements.

Following is a list of the more popular steels used by knife manufacturers and the elements they contain.

**154CM:** Carbon 1.05%; Chromium 14%; Manganese 0.5%. A very hard steel. First used in 1972 for the manufacture of combat knives.

**420:** Carbon 0.15-0.6%; Chromium 12-14%; Manganese 1%. A hard steel but inexpensive.

**420HC:** Carbon 0.5-0.7%; Chromium 13.5%; Manganese 0.35-0.9%. A very popular hard steel.

**440A:** Carbon 0.60-0.75%; Chromium 16.0-18.0%; Manganese 1.0%; High carbon hard steel.

**440B:** Carbon 0.75-0.95%; Chromium 16-18%; Manganese 1.0%.

**440C:** Carbon 0.95 -1.20%; Chromium 17.0%; Manganese 0.40%; Molybdenum 0.5%; Vanadium 0.50%. One of the worlds most popular knife steels. Hard, durable, and easy to work with.

**ATS34:** Carbon 1.05%; Chromium 14.0%; Manganese 0.4%. A Japanese version of **154CM**, a hard steel.

**AUS-8:** Carbon 0.7-0.8%; Chromium 13,0-14.5%; Manganese 1.0%; Molybdenum 0.1-0.3%; Nickel 0.5%; Vanadium 0.1-0.25%. A hard steel used by many custom knife makers.

**CPM-S30V (Also called S30V):**

Carbon 1.45%; Chromium 14%; Molybdenum 2%; Vanadium 4%. A high wear, durable, hard steel, excellent for knives.

**CPM440V:** Carbon 2.15%; Chromium 17.0%; Manganese 0.4%; Molybdenum 0.4%; Vanadium 5.5%; An very hard, high carbon steel.

**D-2:** Carbon 1.5%; Chromium 12.0%; Molybdenum 1%; Vanadium 1%. Stain-resistant tool steel and has excellent edge retention.

**Damascus Steel:**

A legendary steel used by Muslim people against Europeans during the Crusades. It was said to be much stronger, flexible, and sharper than European steel. Even though there are metallurgists and knife makers still experimenting and researching this process, the making of this steel is unfortunately still a lost process.

**M-2:** Carbon 0.85%; Chromium 4.0%; Molybdenum 5.0%; Tungsten 6.35%; Vanadium 2%. High-speed steel, with excellent resistance to high temperatures and maintains its edge even when extremely hot.

**M-4:** Carbon 1.3%; Chromium 4.0%; Molybdenum 5.0%; Tungsten 6.35%; Vanadium 4%. Much like **M-2** in its ability to resist heat, but with a higher carbon content that makes it more difficult to sharpen or work with. Makes an excellent knife blade.

**O-1:** Carbon 0.85-1%; Chromium 0.4-0.6%; Manganese 1-1.4%; Vanadium 0.3%. A very popular, easy to tool, high carbon steel. One of the more popular steels for novice knife smiths.

**Sandvic 12C27:**  
Carbon 0.6%; Chromium 14.0%; Manganese 0.35%.  
A Swedish steel, with few impurities.

**Z60CDV14:**  
Carbon 0.6-0.65%; Chromium 14.0%; Manganese 0.45%;  
Molybdenum 0.55-0.6%; Nickel 0.15%; Vanadium 0.15-0.2%.  
Swedish high carbon steel, easy to sharpen with good edge retention.

**Titanium:** A hard lightweight steel with poor edge retention which is often used for knife parts and handles. Typically unsuitable for quality blades but is highly resistant to harsh elements such as seawater therefore it is more frequently used in the manufacture of diving blades.

**Stainless steel:**  
Has a high Chromium content which aids in the prevention of oxidation. However, because knife steel needs a high carbon content to retain its sharpness, stainless steel is not totally rust proof, it is just partially resistant.

If the above information is of any assistance to anyone, please feel free to copy this page for your knife files.



## KNIFE LAWS

On July 4<sup>th</sup> I was informed by Custom officials that there were no new changes to current knife regulations. However, there appears to be some confusion over the folding knife issue in relation to knives that can be opened one-handed. Customs are evidently trying to ban any folding knife that can be opened with one hand. This covers all knives that can be opened either with a thumb-stud or centrifugal force (a flick of the wrist motion). The latter method covers a huge and diverse range of folders including the standard models that are used by many as an everyday tool. From what I can gather, Customs would like to see all folding knives banned regardless of how they are opened and, as much as they would like to see that come to fruition, they are barking up the wrong tree and, sooner or later, someone in the halls of power is going to come to their senses and end this ridiculous knife paranoia that is sweeping the country.