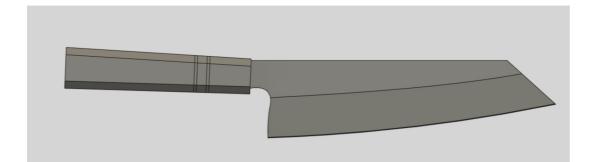


# International Bladesmithing Competition

THE BRITISH FARRIERS & BLACKSMITHS ASSOCIATION BFBA Focus, Stoneleigh, 29 October, 2023

## **Competition Specification** and Rules

2023



Contents				
	Contents		2	
1	Objective		3	
1.1		Kiritsuke	3	
2	Steel		4	
2.1		Chemical composition	4	
3	Blade		4	
3.1		Dimensions	4	
3.2		[REV01] Kiritsuke Blade Drawing	5	
3.3		Shinogi		
3.4		Kuro-uchi (black)	6	
3.5		Kasumi	7	
4	Wa Handle		8	
4.1		[REV01] Kiritsuke Wa Handle Drawing	8	
5	Schedule		9	
5.1		Forging the Blade:	9	
5.2		Shaping the blade post forge:	9	
5.3		Blade quench:	9	
5.4		Tempering:	9	
5.5		Grinding:	9	
5.6		Hafting:	9	
5.7		Timings:	10	
6	Health And Safety		10	

**1: Objective:** To forge a Kiritsuke blade, hardened, back tempered , Shinogi ground with kuro-uchi finish above the shinogi line , hafted and sharpened in three hours and will be judged afterwards for:

- Blade quality
- Cutting Edge
- Aesthetics
- Performance [slicing a soft tomato]

#### 1.1: Kiritsuke:

The kiritsuke knife is a Japanese style slicing knife that is used mainly for thinly slicing fish, vegetables, and fruit, using push/pull cutting. It is traditionally only used by executive chefs because of its difficulty of use and significance as a symbol of status in the kitchen.

A kiritsuke knife is a cross between a Japanese *yanagi* blade, used for slicing raw fish extremely thin as for sushi, or as an *usuba*, a blade used to cut vegetables in very thin slices or julienne style.



#### 2: Steel:

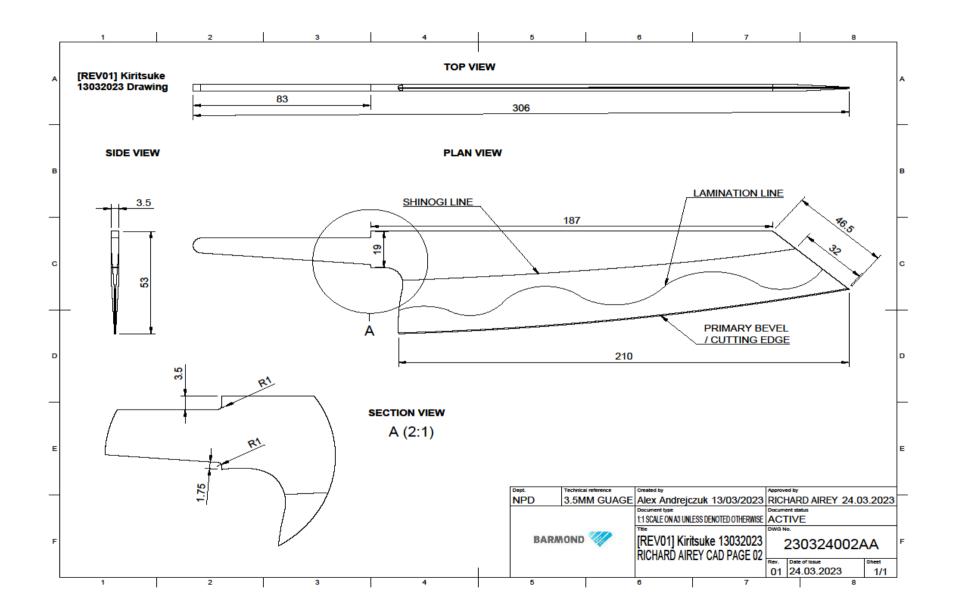
Takefu Super Blue core San Mai stainless clad 48 x 3.50mm x 200mm

2.2: Chemical composition (%) Aogami Super				
C	1.40-1.50			
Si	0.10-0.20			
Mn	0.20-0.30			
Cr	0.30-0.50			
W	2.00-2.50			
V	0.30-0.50			
P:	<=0.025,			
S:	<=0.004			

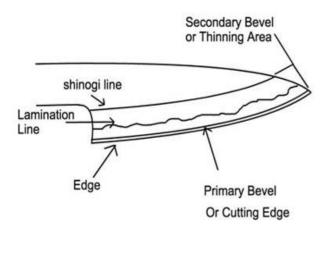
#### 3: Blade:

**3.1: Dimensions** – 210mm cutting edge, 50.00mm deep with a tapered or stepped tang for friction / knock-on fit into the handle. Total length including the WA style handle 340 – 360mm long. A stepped tang can be an option if the smith prefers this style provided it is completed within the time period allocated.





#### 3.3: SHINOGI



A transition line above the cutting edge where the angle of the blade changes is called a **shinogi line**. It is typical of single and double bevel Japanese knives. It is not a literal line; it is just where the angle of the surface changes and what separates the flat surface of the blade from the primary bevel. Because the blade consists of two different planes on either side, they can be turned into a canvas

for two different looks on one blade: for example, a *kuro-uchi* finish on the upper part of the blade and a *kasumi* finish on the lower part of the blade.

#### 3.4: KURO-UCHI (BLACK)



#### Black / blacksmith's finish

In Japanese, *kuro-uchi* means "first black" and this finish is also referred to as the "blacksmith's finish". The knife will retain the black scaly residue from the forging process which gives it a traditional look with a rustic charm. During the forging

process, the knives are exposed to tremendous heat and flames so that the iron on the surface oxidizes and turns black. This look is somewhat robust and

organic but it has a purpose – it will minimize the reactivity of a carbon steel knife and reduce the risk of corrosion. Another practical feature is also that it helps prevent food sticking to the blade. A kuro-uchi knife will continue developing a character or patina over several years of use, thereby increasing its unique quality and resilience.

**Neo-Kurouchi:** this dark "patina" is applied to knives made of stainless less and its sole function is style and aesthetics.

#### 3.5: KASUMI



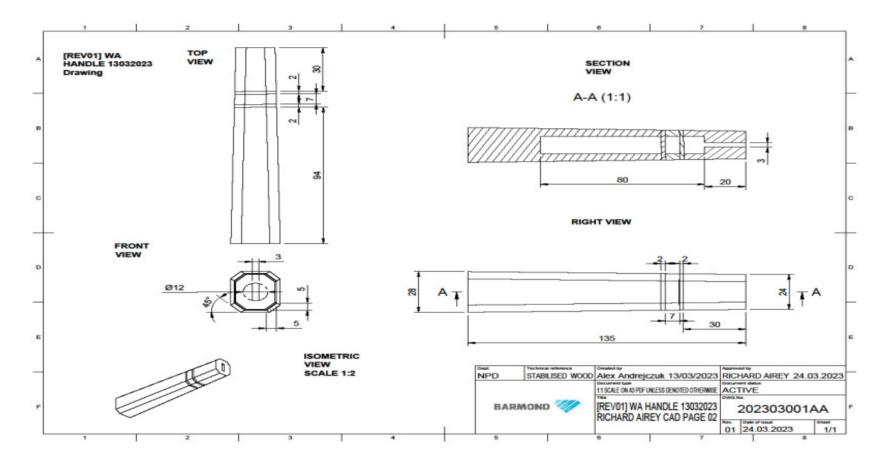
➡ Matte surface above the transition between the harder and softer steel

Kasumi roughly translates to "mist", "cloud" or "haze" and refers to the hazy appearance of the soft steel/iron cladding, in contrast to the fine

polished cutting edge.

Even though kasumi is often used also in double bevel knives, it is especially characteristic of single bevel knives, mostly Yanagibas.

Western knives are usually double-bevelled and the angle does not change along the sides of the blade (a flat, convex grind all the way from the spine to the cutting edge). They usually fall into the category of a V-grind with a crosssection at 30 degrees and a grind at 15 degrees. **4.0 Handle**: Wa style octagonal handle. Wood block provided will be a pre-drilled block 40 x 35 x 150mm in a range of hardwoods, walnut, oak , maple etc. 12.00mm dia hardwood dowels will be available.



4.1: [REV01] Kiritsuke Wa Handle Drawing

#### 5.0: Schedule

There will be a maximum of 24 competitors in relay commencing at 08:00 on Sunday 30<sup>th</sup> October 2023. The competition will finish at 16:00.

The competition will take place in a tent, open to the public for viewing.

Six will start at 08:00. There will be six anvils , gas forges and grinders for competitors to use. An evenheat kiln will be available for hardeing the blades.

Competitors can bring whatever tools they need for hammer forging and handle production with them.

The anticipated three hour cycle will be as follows:

5.1: Forging the Blade:		45 minutes	
5.2: Shaping the blade post forge:		15 minutes on the grinder	
<b>5.3: Blade quench</b> : 15 – 2		20 minutes	
	The kiln will be set at the quench temperature for the steel , which is 780- 830°C. Water cooling (Oil cooling)		
	There will be up to six blades in the kiln.		
5.4: Tempering:		tempering range for the core steel is C -230°C Air-cooling.	

The full quench and tempering cycle for this steel to be done properly is around 2.1/2 to 3 hours. Given the constraints of the competition this is not going to be feasible. The only option to achieve a serviceable blade would be to back temper the blade as a shortened version of the 2x 1 hour temper cycle.

5.5: Grinding:	45 minutes	
5.6: Hafting:	1hour inc. sharpening	

### 5.7: Timings:

Time	Group 1	Group 2	Group 3	Group 4		
08:00:00	Pre-comp set up.					
09:00:00	Forging and Shaping					
10:00:00	Quench and Temper	Forging and Shaping				
11:00:00	Grinding	Quench and Temper	Forging and Shaping			
12:00:00	Hafting	Grinding	Quench and Temper	Forging and Shaping		
13:00:00		Hafting	Grinding	Quench and Temper		
14:00:00			Hafting	Grinding		
15:00:00				Hafting		
16:00:00						

**6.0: Health And Safety:** BFBA guidelines will be followed throughout the competition.