



福州海林食品有限公司

FUZHOU HAI LIN FOOD CO.,LTD

地址：福建省福州市罗源县起步经济开发区

Address: Qibu Economic Development Zone, Luoyuan County, Fuzhou, Fujian, P.R. of China.

TEL: 86-591-26988588 FAX: 86-591-26988788

E-mail: sales@fzhl.com Website: www.fzhl.com

海带丝的制备

PRODUCTION OF DIRED KELP

每年的四月份是海带的收成季节，我们将从海里刚收割上来的新鲜海带运回工厂，由工人挑选高品质的海带，放进机器中进行清洗，清洗完毕后海带被放入机器里蒸煮，然后机器自动切丝，完成切丝后，工人将海带丝摆成圆饼形状和长方形形状，接着放入机器里进行烘干。

April of each year is the kelp harvest season, we will harvest fresh kelp from the sea back to the factory, the workers selected high-quality kelp, put it into the machine for cleaning, after cleaning the kelp is put into the machine for cooking, and then the machine automatically cut the silk, after the completion of the silk, the workers put the kelp silk into the shape of a round cake and a oblong shape, Then put it into a machine and dry it.

经过烘干后海带丝已经成型，工人再一次对干海带丝进行检查挑选整理，在这个过程中品质不好的海带丝将再一次被剔除，高品质的海带丝将被打包进入半成品仓库。

After drying, kelp silk has been formed, and workers once again check and select the dry kelp silk. In this process, the kelp silk with poor quality will be removed again, and the high-quality kelp silk will be packed and put into the semi-finished product warehouse.

新鲜海藻不管它是如何加工的，是最好的原料。但是，由于生化特性，它们很快就会变质。结果，菌体被破坏并变成带有酸味的粘稠物质。

Fresh seaweed, no matter how it is processed, is the best ingredient. However, they quickly deteriorate due to biochemical properties. As a result, the bacteria are destroyed and turn into a sticky substance with a sour taste.

收取海带时，使用新鲜捕获的含水量为 85% 的生海带。原材料的干燥通过人工（机器）和自然方法进行。干燥过程的主要目的是严格遵守最佳温度条件，确保植物快速干燥，而不会失去最初捕获的海带特性，同时保持其特性。

For kelp collection, freshly captured raw kelp with a water content of 85% was used. The drying of raw materials is carried out by manual (machine) and natural methods. The main purpose of the drying process was to strictly adhere to the optimal temperature conditions, ensuring that the plants dried quickly without losing the kelp properties initially captured, while maintaining their identity.

干燥是一个非常耗能的复杂过程。机器干燥是为了去除水分，防止变质，并保持藻类的特性。
Drying is a very energy-intensive and complex process. Machine drying is done to remove moisture, prevent deterioration, and maintain algal characteristics.

热干燥过程示意图：

Schematic diagram of hot drying process:

1. 收取和人工采集

1. Collection and manual collection



福州海林食品有限公司

FUZHOU HAI LIN FOOD CO.,LTD

地址：福建省福州市罗源县起步经济开发区

Address: Qibu Economic Development Zone, Luoyuan County, Fuzhou, Fujian, P.R. of China.

TEL: 86-591-26988588 FAX: 86-591-26988788

E-mail: sales@fzhl.com Website: www.fzhl.com

海带是从处于商业成熟阶段的海水池中选择性收取的。海带的采集不应导致特定捕捞区的海带资源枯竭。

Kelp was selectively collected from seawater pools at a commercial maturity stage. Kelp collection should not lead to depletion of kelp resources in a particular fishing area.

在白天收集期间、运输期间以及干燥过程开始之前，将把新鲜捕获的海带材料储存在净海水中的网袋或固定杆上。挂在固定杆上，使底部和顶部都在水中。原材料的保质期不应超过 2 天。

Freshly caught kelp material will be stored in net bags or on fixed poles in net seawater during daytime collection, during transportation, and before the drying process begins. Hang on a stationary pole so that both the bottom and top are in the water. The shelf life of raw materials should not exceed 2 days..

2. 机洗

2.Machine wash

新鲜收获的生海带事先在清水中彻底清除沙子、淤泥、粘液和其他污染物。如果海带面有贝壳，用刷子清洁它们，然后冲洗干净。

Freshly harvested raw kelp was thoroughly cleared of sand, silt, mucus, and other contaminants in clean water beforehand. If there are shells on the kelp surface, clean them with a brush and rinse them off.

为了去除病原体，将藻类爬行者在高达 70° C 的温度下烫一次，然后放入干燥室。许多细菌培养物（细菌、酵母菌、真菌、病毒）由于在 50 至 60 ° C 的相对狭窄温度范围内进行热处理而迅速死亡。

To remove pathogens, algae crawlers were scalded once at up to 70°C and placed in a drying chamber. Many bacterial cultures (bacteria, yeasts, fungi, viruses) die rapidly due to heat treatment within a relatively narrow temperature range of 50 to 60 °C.

3. 机切碎

3. Shredded by machine

该生产线包括海带切碎机、海带碎收集罐和海带碎混合装置。

The production line includes kelp shredder, kelp shredder collection tank and kelp shredder mixing device.

4. 机洗（机切碎）

4. Machine wash (Shredded by machine)

压碎的海带在水槽中用水清洗。海带首先在沙子和盐浴中清洗之后再淡水中清洗。洗涤后，将菌体放在网盘上沥干并晾干。

Crushed kelp was washed with water in a sink. Kelp was first washed in sand and salt baths before being washed in fresh water. After washing, the cells were drained on a mesh dish and allowed to dry.

5. 机器干燥（蒸汽）

5. Machine drying (steam)



福州海林食品有限公司

FUZHOU HAI LIN FOOD CO.,LTD

地址：福建省福州市罗源县起步经济开发区

Address: Qibu Economic Development Zone, Luoyuan County, Fuzhou, Fujian, P.R. of China.

TEL: 86-591-26988588 FAX: 86-591-26988788

E-mail: sales@fzhl.com Website: www.fzhl.com

干燥器是一个气动室，沿回路提供喷射蒸汽。然后将海带在稳定的温度下干燥，从而保留产品的所有品质。这种方法和温和的处理使海带比在阳光下干燥得更快，更能海带细胞完整并避免蛋白质变性。喷雾干燥机的优点是干燥速度快，这是因为蒸发过程密集，与热空气接触时间短，温度不超过 40-50℃。

The dryer is a pneumatic chamber that provides jet steam along the circuit. The kelp was then dried at a stable temperature, thereby retaining all the qualities of the product. This method and gentle treatment allowed kelp to dry faster than in the sun, leaving kelp cells intact and avoiding protein denaturation. The advantage of the spray dryer is the fast drying speed, which is due to the intensive evaporation process, short contact time with hot air, and the temperature does not exceed 40-50 ° C.

6. 自然干燥

6. Natural drying

水分质量分数超过 20% 的菌体被送去干燥。在寒冷的天气里，干燥可以在专门配备的仓库中进行，而在温暖的季节，可以通过其他方式进行干燥：在阴凉处（在天篷下）或在露天方式（在日光下）。海带的自然干燥也不会改变本产品的性质和结构，不能直接用于食品中。接下来，将原料挂起来自然晾干，切成片。

Thalli with a moisture mass fraction of more than 20% were sent for drying. In cold weather, drying can be carried out in specially equipped warehouses, while in warm seasons drying can be done by other means: in the shade (under a canopy) or in an open mode (in daylight). The natural drying of kelp also does not change the nature and structure of this product and cannot be used directly in food. Next, the ingredients were hung to air dry and cut into slices.

7. 包装（袋装）

7. Packing (in bags)

工厂收到客户的订单后，工人将仓库里的干海带丝放入金属探测仪进行检测，然后称重，打包，封口，进入成品仓库。发货前质检部门将对袋装的海带丝进行抽检，检验合格后，联系物流发货。除烘干外，出口货物不进行其他技术操作。

After the factory receives the customer's order, the workers put the dried kelp wire in the warehouse into the metal detector for testing, then weigh it, pack it, seal it, and enter the finished product warehouse. Before delivery, the quality inspection department will carry out sampling inspection on the bags of kelp silk, and contact the logistics for delivery after passing the inspection. Except for drying, no other technical operation is carried out on the exported goods.

生产过程中严格按照中国藻类企业的标准进行工艺干燥的规定程序。这加快了从我们工厂的工业量中去除藻类中的水分的过程。

The production process is strictly in accordance with the standards of Chinese algae enterprises for process drying procedures. This speeds up the process of removing water from the algae from the industrial volumes of our plant.

工厂只是对海带丝进行初加工，以利于保存，不可直接食用！

The factory only carries on the initial processing to kelp silk, in order to facilitate the preservation, cannot eat directly!



福州海林食品有限公司

FUZHOU HAI LIN FOOD CO.,LTD

金海林

地址：福建省福州市罗源县起步经济开发区

Address: Qibu Economic Development Zone, Luoyuan County, Fuzhou, Fujian, P.R. of China.

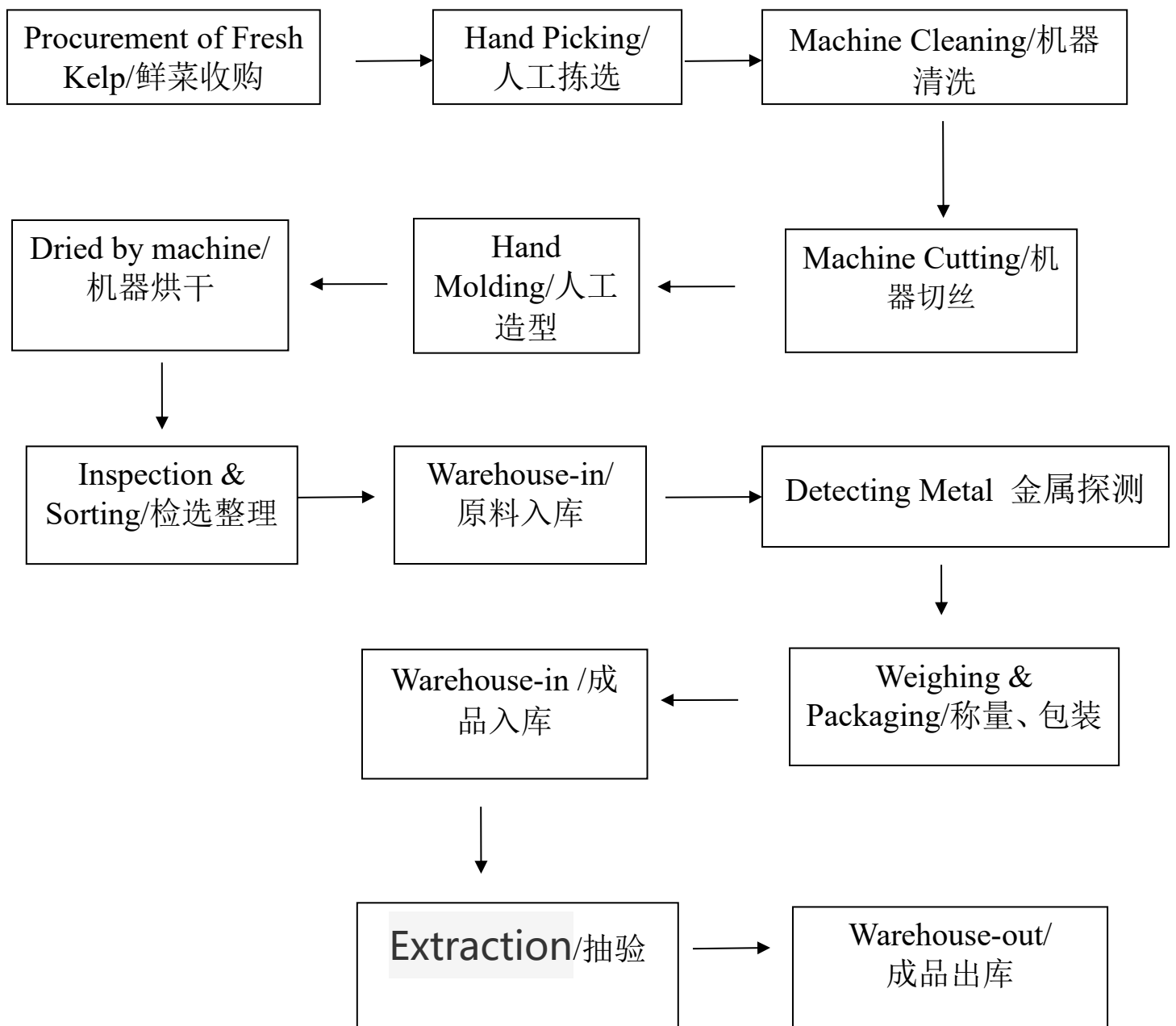
TEL: 86-591-26988588

FAX: 86-591-26988788

E-mail: sales@fzhl.com

Website: www.fzhl.com

Flow Chart for Kelp





福州海林食品有限公司

FUZHOU HAI LIN FOOD CO.,LTD

地址：福建省福州市罗源县起步经济开发区

Address: Qibu Economic Development Zone, Luoyuan County, Fuzhou, Fujian, P.R. of China.

TEL: 86-591-26988588 FAX: 86-591-26988788

E-mail: sales@fzhl.com Website: www.fzhl.com

