

# Operating Parameters of Fish Feed Making Machine

Regarding the processing parameters of extruded aquatic feed, this article is based on the exchange of industry experts and years of practical experience. The parameters and rules of the extruder are compiled. Due to the different equipment models and product structures, specific problems need to be analyzed. The following description is only For your peers who use the extruder.

|   | Fish pellet machine   |
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| 1 | The press is shut down for 30 minutes or longer, you need to remove the ring die, plug the device with a hard cover, and fill the system with water, this will prevent the equipment from forming into a hard block, causing mold blocking and impact Ring die hole. When the machine is turned on, the materials in the system should be washed and cleaned. In cold weather, the device should be preheated with steam.   |
| 2 | The screw rotation of the equipment and the ton yield of the inner wall depend on: the product, the size of the crushed powder material, and the water content of the material in the conditioning chamber. The screw of the facilities and the inner wall do not determine the degree of abrasion according to the output per ton, and their life ranges from 6000 to 60,000 tons. They can all be repaired again, but they must have a more accurate production record to ensure cost effectiveness. The wear rate of the tapered head at the tail is twice that of other |

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|   | parts. Some factories take turns to use the squeeze screw and the inner wall from the outlet to the inlet to extend their lives.   |
| 3 | When installing a new machine , measure the thickness of the extruder screw and the inner wall, and track its wear. The inner screw screw wears 0.8MM on each side, and the extrusion screw wears 3.2MM on each side, it should be replaced in time. Excessive wear will cause: the squeezing pressure will drop, the reverse material of the squeezing machine will increase, the current of the squeezing machine will fluctuate 25-40A, and the normal fluctuation will be 5-10A. |
| 4 | If the product cannot be formed and there is a lot of cutting chips, some grease should be added appropriately to reduce the feeding speed. Changing the thickness of the ring die and the number of holes will reduce the cutting chips.  |
| 5 | Opening the rear vent of the making machine will increase the density of the product and produce a heavy feed. If the fat content of the formula does not exceed 12% or add 20% of dry and semi-dry materials into the squeezing machine, opening the exhaust holes will result in a heavy feed.   |
| 6 | Adding water into the squeezing machine is for better blending. If the water is added too much, the product will have a small tail, and the cake and the product will stick to each other. Up to 12% of the water can be added to the apparatus (normally more than 8%), and up to 1% of the steam can be added to the equipment.  |
| 7 | The steam pressure entering the machine should not exceed 5.6 kg/cm <sup>2</sup> , otherwise it will cause backflushing and blockage of the material.  |
| 8 | When producing floating materials, the pressure before the ring die is 35-38kg/cm <sup>2</sup> , the discharge temperature is 125-138°C, the density of the product is 320-400 grams per liter, and the opening area of ??the ring die per unit output is 225- 250 MM <sup>2</sup> /ton.   |
| 9 | When producing heavy materials, the pressure   |

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|    | before the ring die is 27-30 kg/cm <sup>2</sup> , the discharge temperature is 120 °C, the density of the product is 600-610 grams per liter, and the opening area of ??the ring die per unit output is 550- 600 MM <sup>2</sup> /ton.  |
| 10 | When the feed is squeezed out of the ring die, it will immediately emit 4% of the water content, and the moisture content of the wet material will become 26-30%.   |
| 11 | Cold water can be added to the sleeve of the implement to affect the processing of the feed. For the production of heavy feed, the middle machinery sleeve should be added with cold water to keep it cool, while the final machinery sleeve is not cooled to maintain the temperature (no Add water to cool).  |
| 12 | The faster the screw rotation speed of the implement, the more energy can be added to the feed (the more it is cooked). The rotation speed is a better way to control the density of the feed. The rotation speed is reduced, and the density of the feed is also reduced to make the quality lighter.  |
| 13 | When adding steam, it is best to be in the third or fourth section of the machine, because too close to the inlet and the ring die will cause clogging of the return material and ring die. The place where steam is added should be the place with the lowest material pressure to prevent the steam nozzle from being blocked.  |
| 14 | Worn extrusion screw and inner wall will reduce the flow of materials, increase the load of the motor, temperature, retention time and the degree of maturity that should be, increasing the filling degree of the implement screw will increase the retention time, intermittent extrusion screw pair The maturation of the material is better than the uninterrupted extrusion screw. |
| 15 | Increasing the amount of feed will result in a product with a higher density, because the residence time will be reduced. The residence time of the material in the machine is a very important operating factor.   |
| 16 | Adding a vacuum device to the exhaust port of the machine will improve the PDI of the feed  |

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|    | and increase the density of the feed, but it will reduce the ability of the material to retain grease. |
| 17 | The screw-built inner wall will increase the output of the machine.                                    |