



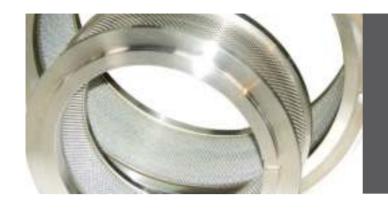
## 01/About Jigerrui

After almost 20' years development, Jiaerrui has grown into a leading global ring die manufacturer.

Our companys locates in Tianmu Lake Industrial Park, covering an area nearly 8000 square meters.

We specialize in manufacturing spare parts of pellet machine. Such as ring die, roller shell, etc. Our pursuit of excellence is not only about the control of every product quality, but also the execution of system standard for the whole spare parts. In the recent years, Jiaerrui has made large investments in advancing CN (HTT KH-4-100 gun drill) for ring die and heat treatment equipment, to ensure the high quality of our products while maximizing the benefits to our customers.

Over the past decades, Jiaerrui has accumulated rich experience in the spare parts business. Therefore, we can do more and better for you.



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## 03/Advantages of Jiaerrui Ring Dies

- Die Materials
  Alloy dies have good abrasion and breakage resistance, making them the choice for feed processors Chrome dies have superior corrosion resistance, making them the choice for processing operations involving corrosive chemicals.

  stainless steel dies have the best abrasion and
  - breakage resistance as well as good corrosion resistance.
- According to customer's requirements, design various suitable hole diameters.

- The use of imported gun drilling and multistation group drilling equipment, allows holes to be drilled at one time. Plus, highquality finishing equipment gives you dies of high capacity producing feed with a quality appearance.
- Automatic drilling machinery provides good design and accurate hole pattern; Adopting of high-quality exported feedstock to ensure fine quality of products.







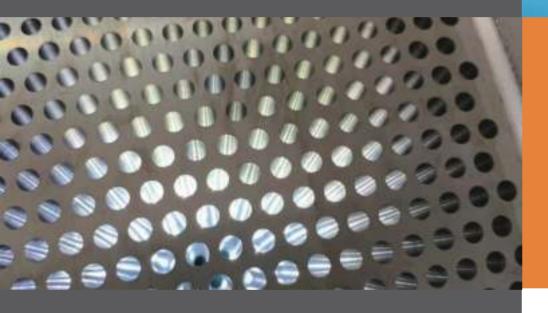




04/Honor

## A

Advanced gun drilling equipment, to ensure a smooth surface of all ring die hoies.





Inside and outside circles of each die are subject to a fine grinding treatment producing a smooth, clean cut for feeds.

## C

The use of high quality exported feedstock to guarantee the high quality of our raw materials.





### **Excellent Process** Advanced Equipment

#### Advanced Technology From Europe, Bring Exquisite Craft Of World-class

Changzhou Jiaerrui Machinery Manufacturing Co., Ltd. ltd is in the lead of ring die industry in China. Jiaerrui can reach the world advanced level rely on the advanced technology and equipments from Europe. We keep pursuing "High quality, High efficiency, Low consumption", trying best to provide excellent products and service for customers and make contribution to feed industry.





Advanced gundrill machine provides fine surface inside die holes

Automatic drilling machinery provides good hole design and accurate hole pattern







#### Correct Operation Of Dies



#### Maintenance for Pellet Mill

As the pellet mill is the main equipment in feed mill, firstly feed mill should process daily, week and month maintenance to ensure the stable working condition of pellet mill, if there's some problem in the equipment, especially the drive wheel and main shaft, the spare parts should be changed on time to ensure the no rmal using for ring die.

Installing the magnet mechanism in the inlet of feed, stopping the metal material dropping in the pellet cavity and the broken of ring die.

Checking the situation of drive parts, clamp and drive wheel while installing ring die, if there's some problem, the related spare parts should be changed on time to ensure the normal operating of pellet mill.

#### Operation and Maintenance of Ring die

Due to the different kinds of feed, which is related to the material, ration of holes, holes length and pressure reducing holes and design of ring dies, the ring die e should be designed by professional corporation to ensure the maximum value of ring die.

The gap of nng die and roller should be controlled between 0.1-0.3mm, do not make eccentricity roller touched with the surface of ring die. This size is not easily found by eyes.

The feed flow must be from low speed to high speed while the pellet mill operating. Do not operating with high speed while starting in case of resulting in the broken of ring die and pellet mill.

#### Summarize for pelleting of different material

With the application of pellet feed in the area of livestock and poultry, aqua products, compound fertilizen lupulus, chrysanthemum, wood and othe r industries, which making the using of pellet mill become more popular. Since the different feed formula and the difference of area, the requirements of pellet feed for customer is also different. The parameter of ring die for every feed mill is different as the different requirements and feed formula.

The main parameter of ring die include material, diameter of holes, ratio of compress and ration of holes. And the main parameter of ring die must be decided according to the chemistry and physics of material for feed formula. Chemistry mainly include protein, starch, fat, cellulose, etc. And the physics mainly include size, moisture, volume.

Poultry feed containing mainly wheat and maize, a higher starch content and less fiber contentcarries a high starch feed, feed must ensure that this type of sup press adequate gelatinized starch, reach high temperatures and stable processing conditions, so in the granulation process Join steam quenched and crucial, a nd quenched three elements: the moisture, temperature, and time are indispensable. To achieve stable quenching, it is necessary to ensure the supply steam, device status, correct operation, standardized management is an important precondition.



05/Correct Operation Of Dies

A

Strict self-testing.





Technical experts on-site guidance.

C

The equipment debugging.

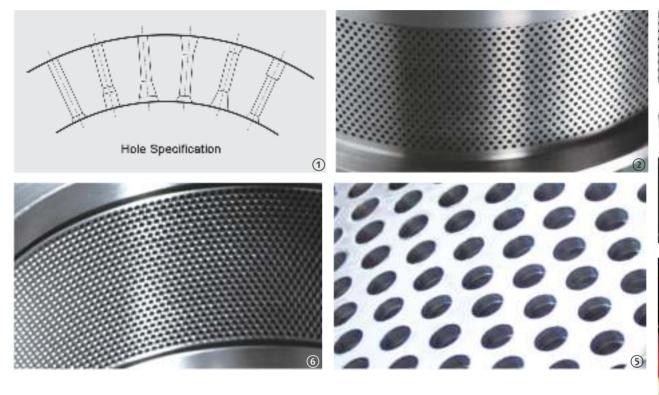




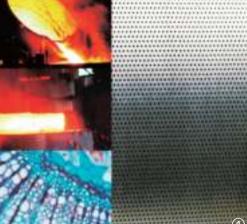
### Heat Treatment Center

Ensure high quality Product, invested heavily introduce advanced vacuum hardening furnace, box furnace, etc., with industry leading levels of heat treatment production equipment, making products more solid









- 1. According to customer requirements and material characteristics, design Varous Suitable hog diameters
- 2. Uniform Hole Design and Pattern
- 3. Excellent Drilling Process
- 4. Good Inside Structure
- 5. Smooth Hole Surface
- 6. Uniform Hole Taper



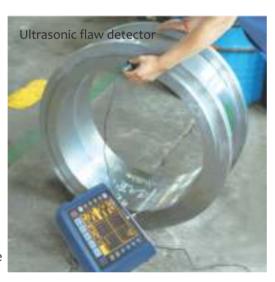
### Research and Development Testing







Spark microscope











### Advantages of Jiaerrui Ring Die

Select quality forging stock, but general companies select casting stock

Use gun drill, the hole is completed by one time, nice appearance, high capacity

Use America vacuum oven and advanced treatment craft, ensure twice service life

Strong R&D help customer design compression ratio and strength according to requirements, Ensure pelleting effect and high quality of product





### **Product Show**

Jiaerrui can manufacture different kinds of ring dies according to clients' requirements
Such as:Buhler pellet mill, CPM pellet mill, Andritz Pellet Mill, ZCME pellet mill,
Van arson pellet mill, Shende pellet mill,
Muyang pellet mill

















Advanced equipments, Exquisite craft
Jiaerrui excellent dies
increasing capacity and creating benefit for customers











# 06/Product Information A /SZLH series



/SZLH series G /TPM series

B / MUZL series H / PTN series

C / Buhler series / XGJ series

D/CPM series J/Munch series

E / IDAH series K / yemmak series

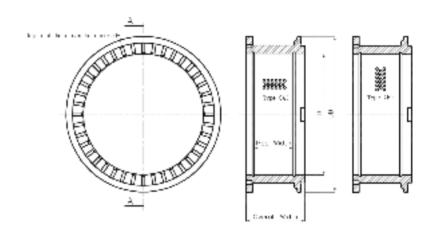
F / E&H series

We can make many famous models ring die & roller shells, such as: SZLH, CPM, Buhler, PTN, Andritz Sprout, Matador, Amandus Kahl, Muyan g, Paladin, Sogem, Van Arssen, Yemmak, Promill, etc. We make all kinds of pellet mill ring dies according to customers' drawing.

- For Zhengchang pellet mill: SZLH250, SZLH300,SZLH320,SZLH350,SZL H400,SZLH420,SZLH508, SZLH678, SZLH768, etc
- For Muyang pellet mill: MUZL180, MUZL350, MUZL420, MUZL600, MUZL1200, MUZL610, MUZL1210, MUZL1610, MUZL2010; MUZL350X, MUZL420X, MUZL600X, MUZL1200X(Especially for shrimp feed pellet, diameter: 1.2-2.5mm)
- For Awalia pellet mill: Awalia 420, Awalia 350, etc
- For Buhler pellet mill: Buhler304, Buhler420, Buhler520, Buhler660, Buhler900, etc.
- For Kahl pellet mill(Flat die): 38-780, 37-850, 45-1250, etc.





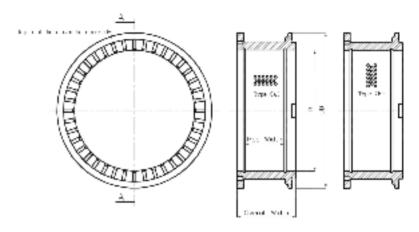


S/N	Model	Size (ODxIDxoverall widthxpad width-mm)	Hole Size
1	SZLH320	432*320*130*87	
2	SZLH350	500*350*180*100	
3	SZLH40	558*400*200*120	
4	SZLH40D	558*400*218*138	
5	SZLH420	580*420*196*196	Ф1-Ф20
6	SZLH420D	580*420*214*138	Ψ1-Ψ20
7	SZLH508	660*508*238*155	
8	SZLH508E	660*508*284*185	
9	SZLH558	774*572*270*170	
10	SZLH578	774*572*300*200	





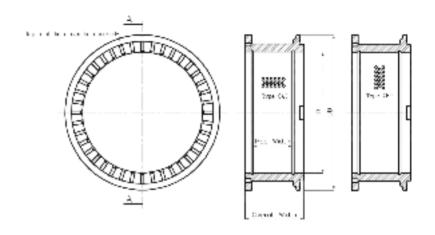




S/N	/N Model Size  (ODxIDxoverall widthxpad width-		Hole Size
11	MUZL350	422*350*142*100	
12	MUZL420	496*420*180*140	
13	MUZL420T	560*460*185*140	
14	MUZL420TB	604.5*460*215*140	
15	MUZL420TW	560*460*209*160	
16	MUZL550	722*550*300*200	Ф1-Ф20
17	MUZL600	670*550*235*170	Ψ1-Ψ20
18	MUZL600T	670*552*255*190	
19	MUZL610TW	670*550*285*220	
20	MUZL1200	791*650*245*175	
21	MUZL1210C	751*630*257*197	
22	MUZL1610C	960*802*315*223	





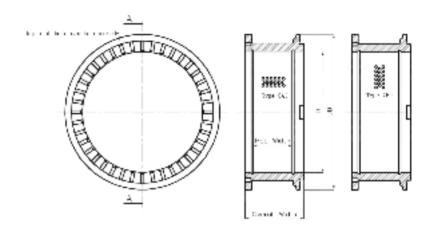


S/N	Model	<b>Size</b> (ODxIDxoverall widthxpad width-mm)	Hole Size
23	Buhler350	500*350*180*100	
24	Buhler400	558*400*200*120	
25	Buhler420*108	489*420*152*108	
26	Buhler420*138	489*420*182*138	
27	Buhler420*140	580*420*217*140	Ф1-Ф20
28	Buhler520*138	610*520*182*138	Ψ1-Ψ20
29	Buhler520*178	617*520*212*178	
30	Buhler660*178	799*660*236*178	
31	Buhler660*228	790*660*286*228	
32	Buhler660*265	790*660*324*265	





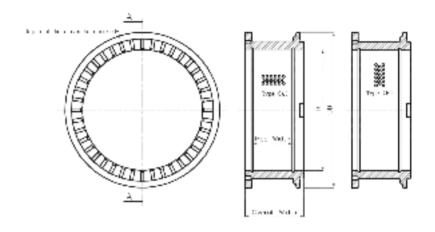




S/N	Model Size H (ODxIDxoverall widthxpad width-mm)		Hole Size
33	CPM3016-4	559*406*190*116	
34	CPM3016-5	559*406*212*138	
35	CPM3016-7	559*406*190*116	
36	CPM3020-6	660*508*238*155.5	
37	CPM3020-7	660*508*264*181	Ф1-Ф20
38	CPM3022-6	775*572*270*155	Ψ1-Ψ20
39	CPM3022-8	775*572*324.5*208	
40	CPM7726-6	890*673*325*180	
41	CPM7726-8	890*673*388*238	
42	CPM7939-9	1022.5*826.5*398*240	





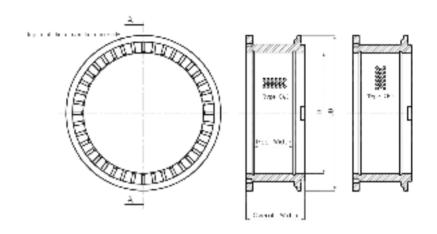


S/N	Model	<b>Size</b> (ODxIDxoverall widthxpad width-mm)	Hole Size
43	IDAH530	680*530*258*172	
44	IDAH530F	680*530*278*172	Ф1-Ф20
45	IDAH635D	790*635*294*194	





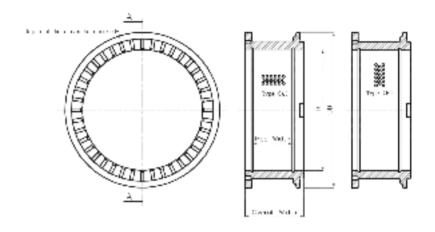




S/N	Model	<b>Size</b> (ODxIDxoverall widthxpad width-mm)	Hole Size
46	E&H320	400*320*160*108	
47	E&H420M	500*420*182*138	Ф1-Ф20
48	E&H450	610*450*205*134	





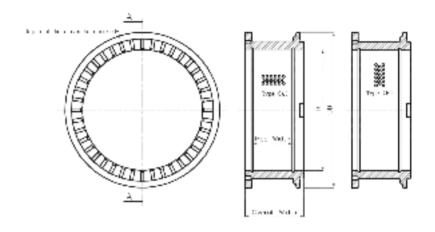


S/N	Model	<b>Size</b> (ODxIDxoverall widthxpad width-mm)	Hole Size
49	TPM520	630*520*222*178	Ф1-Ф20





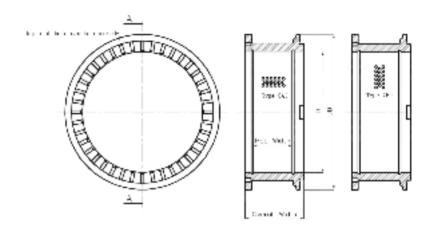




S/N	Model	<b>Size</b> (ODxIDxoverall widthxpad width-mm)	Hole Size
50	PTN450	560*452*180*106	
51	PTN580	680*580*216*140	Ф1-Ф20
52	PTN650	791*650*245*175	







S/N	Model	<b>Size</b> (ODxIDxoverall widthxpad width-mm)	Hole Size
53	XGJ560A	560*452*180*106	
54	XGJ560B	690*548*215*66	<b>44 4</b> 00
55	XGJ560C	695*548*215*66	Ф1-Ф20
56	XGJ850	1020*850*265*77.5	



### **Main Spare Parts**

Jiaerrui one-stop to customer service in the business philosophy, the main accessories are also demands high-quality, all machines are equipped with CNC machining;

Jiaerrui high-quality series of pressure rollers of hobbing adoption of improved technology, moderate cogging depth, unique tooth design, materials conducive to greater frictional force prolong service life more than 50% of press roll.







## 07 / Abnormal & Maintenance

#### 1) Maintenance of ring die

- 1. The inner-surface of ring die should be checked after using for a period of time. If there's concave-convex, the part should be polished to ensure the service life of the ring die and roller.
- 2. occurs when your hold hoop loosening pellet mill, wear ring wear, bearing damage, as Abrasion as forcibly operate and so is not normal phenomenon, will lead to following circumstances (See chart).
- 3. Suckling pig feed ring die under specific operating environment, material type may appear uneven thickness (size materials) the case, such as your contact us encountered this issue can fully resolved occurrence of such phenomena.
- 4. Daily using of ring die should be noted, so that to calculate the accurate service life of ring die.
- 5. The original feed should be extruded out with non-corrosive oil, when the ring die was not used in a period of time. Otherwise, the feed in the hole will be drying harden by the heat of ring die, resulting in the following situations.
- 6. Ring die should be stocked in dry and clean place or the holes would be corroded and the service life of ring die would be reduced.
- 7. If granulators hold hoop loosening lapsed appears, the drive wheel or excessive wear ring abrasion, nip between overtighten, pelleting machine spindle bearing damage or serious empty shaft, excessive work overload, briquette iron, etc. May appear according entered a ring mold damage.

model	Material Type	Feed Type	Holes Diameter of ring die
1		High starch feed	Ф2-Ф6
2	Pellet of livestock and poultry	High energy feed	Ф2-Ф6
3	Pellet of aqua feed	High protein feed	Ф1.5-Ф3.5
4	Pellet of compound fertilizer	Feed include urea	Ф3-Ф6
5	Pellet of hops	High fibre feed	Ф5-Ф8
6	Pellet of chrysanthemum	High fibre feed	Ф5-Ф8
7	Pellet of peanut shell	High fibre feed	Ф5-Ф8
8	Pellet of cottonseed hull	High fibre feed	Ф5-Ф8
9	Pellet of turf	High fibre feed	Ф5-Ф8

#### 2) The reason of unusual feed and the solution

There's some unusual feed appeared in the feed production of feed factory affecting the appearance and quality of the pellet, thus affecting the sales and reputation of the feed mill. The follow instruction list is the improving advice for unusual situation in the production of feed factory.

model	shape features	Cauese	change method
1	Curve of pellet, Haw on the surface	<ol> <li>Cutter is far from ring die and blunt</li> <li>powder is too thick</li> <li>pellet is too hard</li> </ol>	<ol> <li>Moving cutter and changing blade</li> <li>Improving fineness of grinding</li> <li>Increasing efficient length of holes, adding molasses and oil</li> </ol>
2	Level flaw appeared	<ol> <li>Fibre is too long</li> <li>Condition time is too short</li> <li>Humidity is too high</li> </ol>	<ol> <li>Controlling fineness of fibre</li> <li>Extending condition time</li> <li>Controlling temperature of raw material, reducing moisture of condition</li> </ol>
3	Vertical flaw appeared	<ol> <li>Elasticity, means expand after compressing</li> <li>High moisture, means flaw appeared after cooling</li> <li>The standing time of feed in holes is too short</li> </ol>	<ol> <li>Improving formula, increasing feed density</li> <li>Using steam for conditioning</li> <li>Increasing efficient length of holes</li> </ol>
4	Radioactive flaw appeared	Big material is not grinded as well(such as half or total com particle)	Controlling grinding fineness of material, increasing grinding uniformity
5	Concave-convex on the surface	<ol> <li>Condition is not enough with big material</li> <li>Steam with bubble, bubble flaw appeared after pelleting</li> </ol>	<ol> <li>Controlling grinding fineness of material, increasing grinding uniformity.</li> <li>Improving the quality of steam</li> </ol>
6	Bearded pellet	Too much steam and pressure, pellet cracked after out- putted from ring die, making bearded Pellet appeared	Reducing steam pressure, use low pressure steam (15-20psi) to condition     Pay attention to the accurate position of pressure reducing valv



# 08/Agency abroad



CHANGZHOU JIAERRUI MACHINERY INDUSTRIAL CO.,LTD