WEIKEER

PROFESSIONAL PELLET RING DIE MANUFACTURER

Liyang Weikeer Feed Machinery Manufacturing Co.,ltd.

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02/ About Weikeer

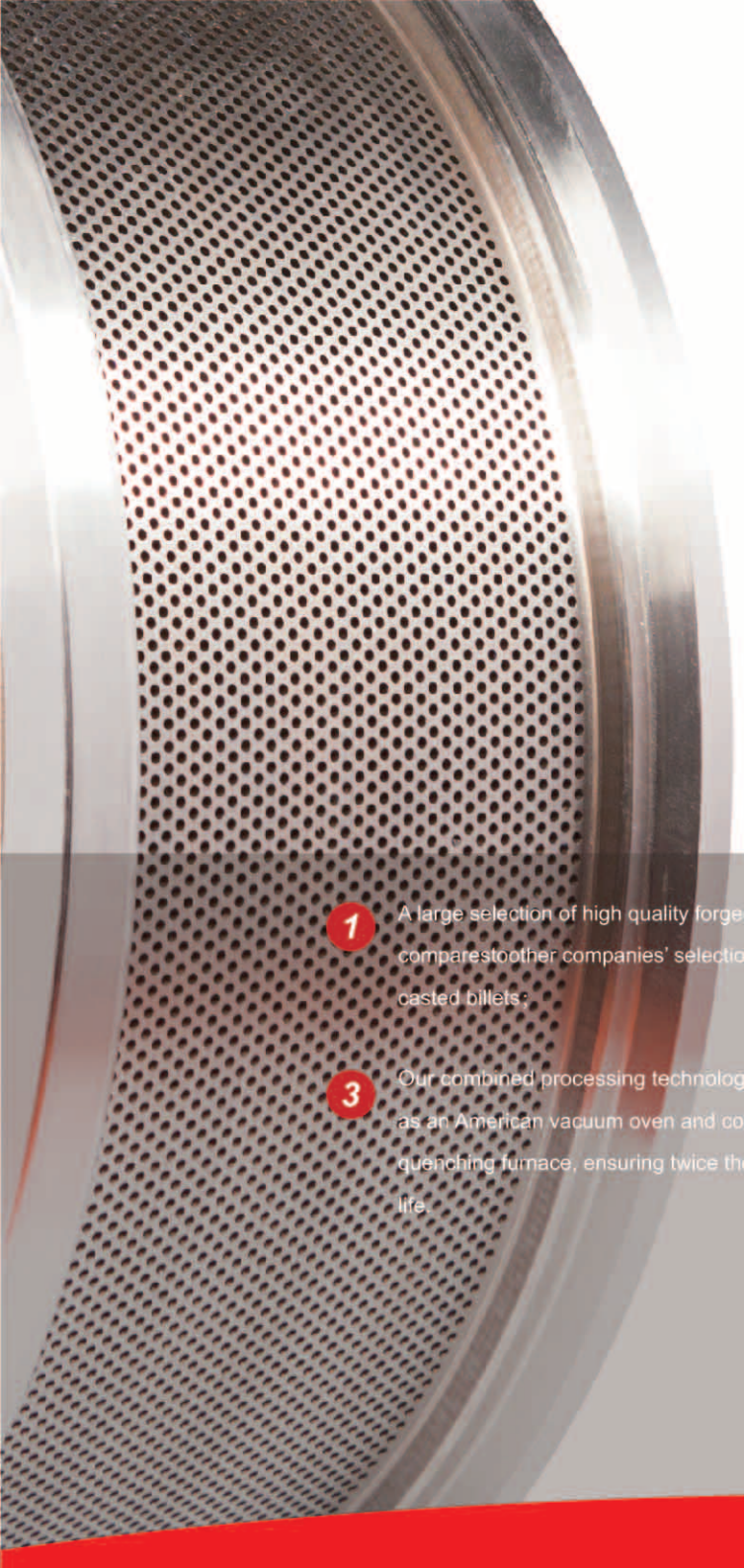
As a specialized company in the production of pellet mill dies, rollers, etc., Weikeer is always focused on our customers. We were established in 1996, and our new 13000 m2 factory is located in Tianmu Lake, including a production workshop of over 7000 m2. With advanced manufacturing technologies and a full complement of processing equipment, we are prepared to meet our customer’ s needs. In addition, with fixed assets of more than 30-million CNY, 26 technologists, and over 100 workers, our company will be here for years to come.

In recent years, Weikeer has made large investments into advanced CNC (HTT KH-4-100 gun drill) for ring dies and HZQL heat treatment equipment, to ensure the high quality of our products while maximizing the benefits to our customers.

Weikeer is a professional company in manufacturing services providing a wide variety of ring dies and rollers for ZCME, CPM, Buhler, Famsun, Andritz, Van Arson, Shende, etc.

03 Honors and Quality Assurance

With our core value being "Create value for our customers", Weikeer will always have stable development of enterprises. Because of this, we have won the recognition of the country, society and our customers.



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04/ Advantages of Weikeer Ring Dies

1. A large selection of high quality forged billets, comparestoother companies' selection of only casted billets;

2. The use of imported gun drilling and multi-station group drilling equipment, allows holes to be drilled at one time. Plus, high-quality finishing equipment gives you dies of high capacity producing feed with a quality appearance.

3. Our combined processing technologies such as an American vacuum oven and continuous quenching furnace, ensuring twice the service life.

4. In addition, our strong R&D dept can help customers design dies with the correct compression ratio and intensity, to ensure their pellet machine produces feeds right at the first time. The appearance of feed will be bright and clean, because of our use of microscopic examination, to guarantee a high quality product.

05 Advanced Processes Advanced Equipment

With cutting-edge technology from Europe and time tested processes, Weikeer is the right choice to bring you the quality you expect.

Our continual improvement process provides you with "High quality, High efficiency, and Low energy consumption" in all our products. Coupled with our experienced technology staff and a customer service department that truly strives to exceed the needs of our customers, makes us the right choice of customers in the feed industry.

A

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

B

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.

06 Correct Operation of Dies

Maintenance for Pellet Mill

a) Since pellet mills are the main equipment in a feed mill, maintenance should be conducted daily, weekly and monthly, to ensure the stable working condition of the mill. If there is any problem with the equipment, especially the drive wheel and main shaft, parts should be changed on time to ensure normal life expectancy of the ring die.

b) Installing a magnetic system at the inlet area of the feed will help stop metal material from dropping into the pellet cavity, causing damage to a ring die.

c) The condition of drive parts, clamp and drive wheel should be inspected while installing ring die, and repaired or replaced if needed.

Operation and Maintenance of Ring die

a) Due to the different kinds of feed and materials used, the relationship of holes, hole lengths, and pressure reducing holes. A die design should only be done by a professional company, to ensure the maximum life of your ring die.

b)In addition, the gap of ring die to roller should be maintained between 0.1-0.3mm, to ensure eccentric rollers do not touch the surface of the ring die. This size is not easily seen by eye and should be checked with the correct measuring equipment.

c) During start-up, the feed flow must be set at low speed then brought to high speed for operation. Do not operate at high speed while starting a feed mill, this could cause damage to the ring die and pellet mill.

Summary of pelleting different materials

With the application of pellet feed in areas of livestock and poultry, aqua products, and compound fertilizers, using varying materials such as lupulus, chrysanthemum, wood, and others, the use of pellet mills is becoming more and more popular. Due to the different feed formulas, because of usage and even geographic area, the requirements of pellet feed for customer is also different. The specifications of each ring die for every feed mill is also different. These differences need to vary the parameters of a ring die including the materials, diameter of holes, ratio of compression and amount and spacing of holes. The main parameter of a ring die must be decided according to the chemistry and physical properties of materials used in each feed formula. The chemistry includes the protein, starch, fat, cellulose and more, while the physics includes size, moisture content, and volume.

Livestock and poultry feed mainly include wheat and corn with a high starch content and low fiber content, because of the starch. For pelleting this kind of feed, the temperature should be high to ensure the gelatinization of the starch. The thickness and scope of holes should be big, and the ratio of compression is usually 1:8 - 1:10.

Broiler feed and duck feed belong to high-energy feeds with its high fat content is easy for pelleting, allowing a ratio of compression usually between 1:10-1:13.

A

Strict self-testing

B

Technical experts on-site guidance

C

The equipment debugging

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07 | Product Information

Note:If user's data go beyond the above-mentioned scopes,
they may be subject to an agreement between manufacturer and client.

A:SZLH series **B:MUZL series** **C:Buhler series** **D:CPM series** **E:IDAH series** **F:CPP series** **G: Van Arson series**

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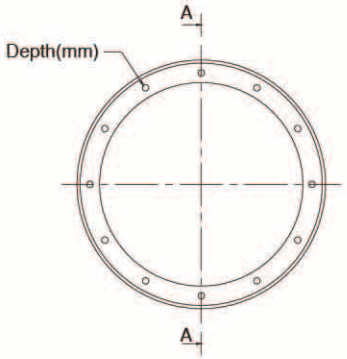
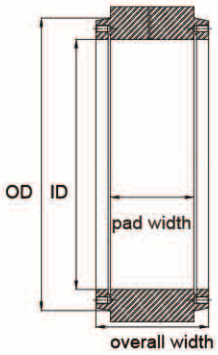
Model	Overall dimensions

A / SZLH Product Show





Hole Size
mm

S/N	Model	Size (OD×ID×overall width×pad width-mm)	Hole Size mm
1	SZLH320	432*320*130*87	Φ1-Φ12
2	SZLH350	500*350*180*100	
3	SZLH40	558*400*200*120	
4	SZLH40D	558*400*218*138	
5	SZLH420	580*420*196*196	
6	SZLH420D	580*420*214*214	
7	SZLH508	660*508*238*155	
8	SZLH508E	660*508*284*185	
9	SZLH558	774*572*270*170	
10	SZLH578	774*572*300*200	

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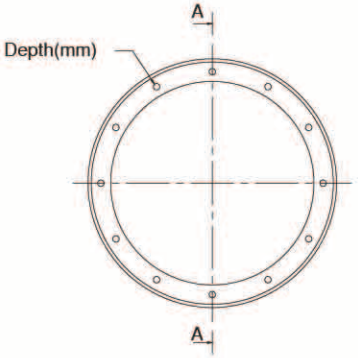
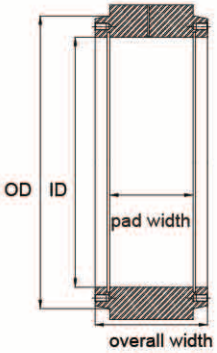
Model	Overall dimensions

B / MUZL Product Show





Hole Size
mm

S/N	Model	Size (OD×ID×overall width×pad width-mm)	Hole Size mm
11	MUZL350	422*350*142*100	Φ1-Φ12
12	MUZL420	496*420*180*136	
13	MUZL420T	604*460*216*140	
14	MUZL420TW	610*460*255*160	
15	MUZL600	670*550*235*170	
16	MUZL600T	670*552*255*190	
17	MUZL610TW	670*550*285*220	
18	MUZL1200	791*650*245*175	
19	MUZL1210C	751*630*257*197	
20	MUZL1610C	960*802*315*223	

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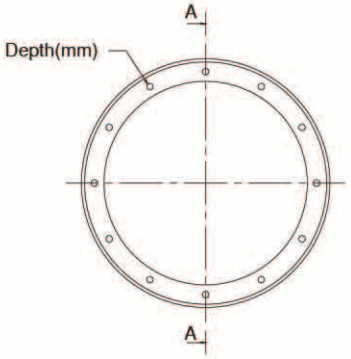
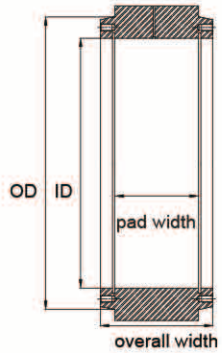
Model	Overall dimensions

C / Buhler Product Show





Hole Size
mm

S/N	Model	Size (OD×ID×overall width×pad width-mm)	Hole Size mm
21	Buhler350	500*350*180*100	Φ1-Φ12
22	Buhler400	558*400*200*120	
23	Buhler420*108	489*420*152*108	
24	Buhler420*138	489*420*182*138	
25	Buhler420*140	580*420*217*140	
26	Buhler520*138	610*520*182*138	
27	Buhler520*178	617*520*212*178	
28	Buhler660*178	799*660*236*178	
29	Buhler660*228	790*660*286*228	
30	Buhler660*265	790*660*324*265	

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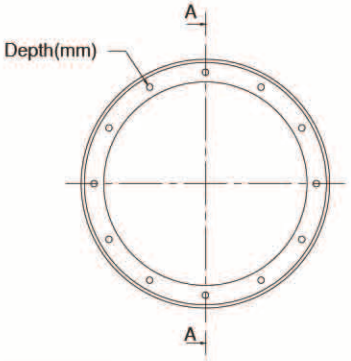
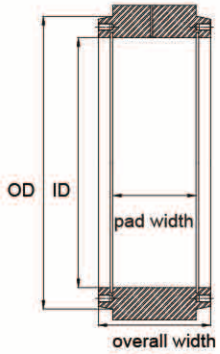
Model	Overall dimensions

D / CPM Product Show





Hole Size
mm

S/N	Model	Size (OD×ID×overall width×pad width-mm)	Hole Size mm
31	CPM3016-4	559*406*190*116	Φ1-Φ12
32	CPM3016-5	559*406*212*138	
33	CPM3020-6	660*508*238*155.5	
34	CPM3020-7	660*508*264*181	
35	CPM3022-6	775*572*270*155	
36	CPM3022-8	775*572*324.5*208	
37	CPM7726-6	890*673*325*180	
38	CPM7726-8	890*673*388*238	
39	CPM7932-9	1022.5*826.5*398*240	
40	CPM7932-11	1027*825*455.5*275	
41	CPM7932-12	1026.5*828.5*508*310.2	

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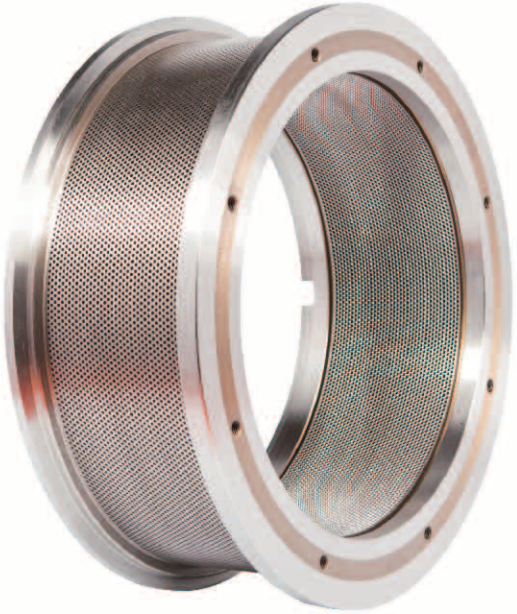
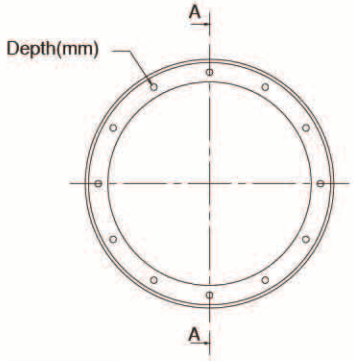
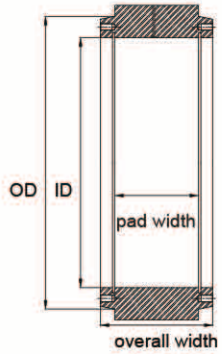
Model	Overall dimensions

E / IDAH Product Show







Hole Size
mm

S/N	Model	Size (OD×ID×overall width×pad width-mm)	Hole Size mm
42	IDAH530	680*530*258*172	Φ1-Φ12
43	IDAH530F	680*530*278*172	
44	IDAH635D	790*635*294*194	

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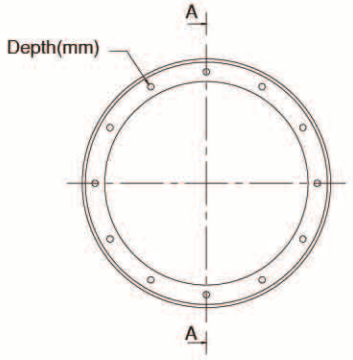
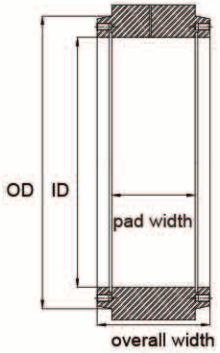
Model	Overall dimensions

F / CPP Product Show





Hole Size
mm

S/N	Model	Size (OD×ID×overall width×pad width-mm)	Hole Size mm
45	CPP150	536*420*185*124	Φ1-Φ12
46	CPP200	661*520*229*150	
47	CPP300	876*676*355*215	
48	CSP020	310*230*110*68.5	

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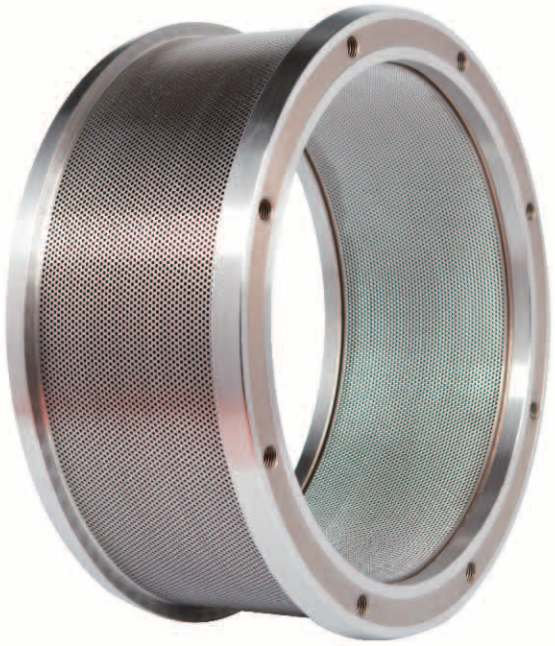
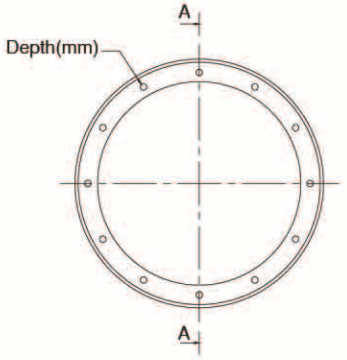
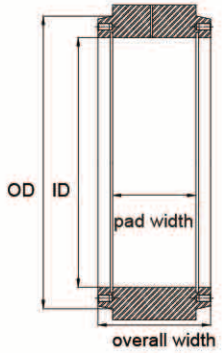
Model	Overall dimensions

G / Van Arson Product Show







Hole Size
mm

S/N	Model	Size (OD×ID×overall width×pad width-mm)	Hole Size mm
49	Van ArsonC600	750*600*324*226	Φ1-Φ12
50	Van Arson750	900*750*350*250	
51	Van ArsonC900	1050*900*374*275	

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08/ Maintenance & Abnormalities

1)Maintenance of ring die

A. When the ring die is not used for a period of time, the feed should be extruded out with non-corrosive oil. Otherwise, the feed will dry and harden in the holes due to heat of the ring die, resulting in the following situations:

a.When starting operations, the holes could be blocked and pelleting would not be possible.

b.During start-up, the strength of the ring die would be reduced and under high pressure, breakage of the ring die is possible.

c.If the entry area of the holes were blocked, capacity and efficiency would be greatly decreased.

B. The inner-surface of the ring die should be checked after long periods of use. If areas are convex or concave, the part should be polished, to ensure along service life of the ring die and roller.

C.If holes are blocked, they be soaked or boiled in oil. If some holes are still blocked, they can be drilled out with an electric drill, followed by oil to polish the surface of the ring die.

D.Do not use hammer the surface of a ring die.

E.Daily using of a ring die should be noted, so you can calculate the accurate service life of your ring die.

F.Ring die should be stored in a clean, dry place or the holes will become corroded and the service life of ring die would be reduced.

2） The reason for irregular feed and the solution

The appearance of unusual feed during production that affects the look and quality of the pellet, could adversely affect the sales and reputation of the feed mill. Our trouble-shooting list is provided for these situations.

Model	Material Type	Feed Type	Holes Diameter of Ring
1		High starch feed	Φ2-Φ6
2	Pellet of livestock and poultry	High energy feed	Φ2-Φ6
3	Pellet of aqua feed	High protein feed	Φ1.5-Φ3.5
4	Pellet of compound fertilizer	Feed include urea	Φ3-Φ6
5	Pellet of hops	High fibre feed	Φ5-Φ8
6	Pellet of chrysanthemum	High fibre feed	Φ5-Φ8
7	Pellet of peanut shell	High fibre feed	Φ5-Φ8
8	Pellet of cottonseed hull	High fibre feed	Φ5-Φ8
9	Pellet of turf	High fibre feed	Φ5-Φ8

Model	Shape features	Causes	Change method
1	Curve of pellet ,flaw on the surface	1.Cutter is too far from ring and blunt 2.Powder is too thick 3.Pellet is too hard	1.Move cutter and change blade 2.Improve fineness of grinding 3.Increasing efficiency of holes by adding molasses and oil
2	Surface flaw appeared	1.Fibers is too long 2.Conditioning time is too short 3.Humidity is too high	1.Control fineness of fibers 2.Extend conditioning time 3.Control temperature of raw material to reduce moisture
3	Vertical flaw appeared	1.Too elasticity, means expand after compressing 2.High moisture, results in flaw appearing after cooling 3.The standing time of feed in holes is too short	1.Improve formula, increasing feed density 2.Use steam for conditioning 3.Increasing efficient length of holes
4	Radial flaw appeared	Big material is not ground well(such as ground corn)	Control grinding fineness of material and grinding uniformity
5	Concave or convex on the surface	1.Conditioning is not long enough with big material 2.Steam contains bubble , causing bubble flaw to appear after pelleting	1.Controlling grinding fineness of material ,increasing grinding uniformity 2.Improving the quality of steam
6	Bearded Pellet	Too much steam and pressure ,pellet cracked after outputted of ring die ,making bearded pellet	1.Reducing steam pressure ,use low pressure steam(15-20psi)to conditioning 2.Pay close attention to the setting of pressure reducing valve

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