



**FEED AND BIOFUEL**

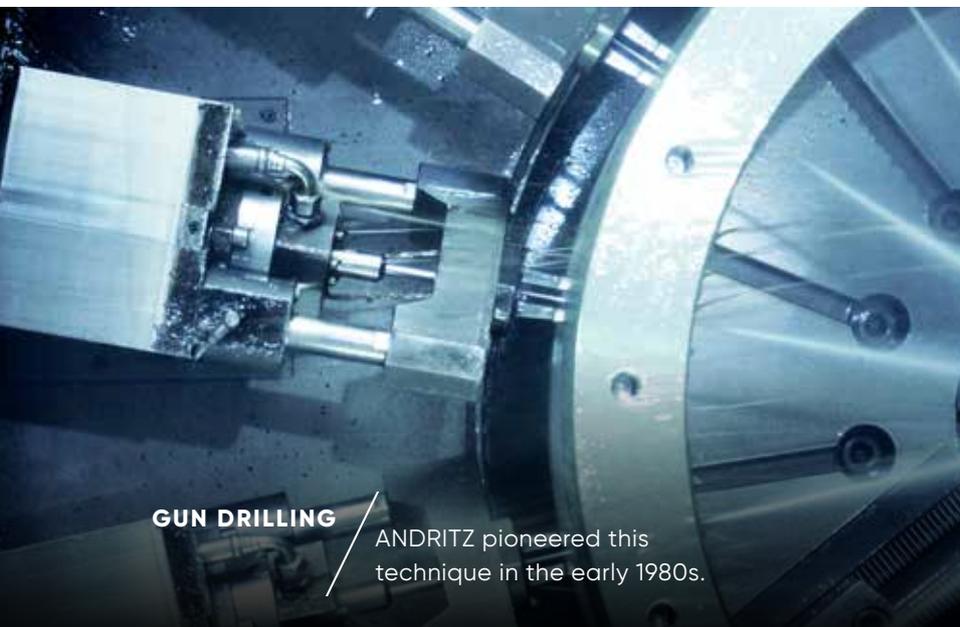
**WORLD CLASS  
MANUFACTURER**

**PELLET DIES, ROLL SHELLS AND HAMMER MILL BEATERS**

**ANDRITZ**

**ENGINEERED SUCCESS**

# A world leading manufacturer of pellet dies



## GUN DRILLING

ANDRITZ pioneered this technique in the early 1980s.



ANDRITZ profits from decades of practical experience and has invested heavily in perfecting the process of manufacturing highly specialized products. As well as producing key components for our own range of pellet mills, ANDRITZ also produces pellet dies for other pellet mill makes and models, thus setting the standard in the industry for products.

## MANUFACTURING PROCESS

Every tiny part of the die has, at some stage, been produced with a single machining operation. A mid-sized die with 4 mm holes will have as many as 10,000 holes. Add to that a countersink and a counter-bore, and the result will be 30,000 machining operations, each one conforming to the accuracy of the pattern. After drilling and tapping bolt holes, milling keyways, turning up the basic shape of the die blank, cleaning, drying, vacuum hardening, tempering and finally finishing to the fitting sizes, the entire production of the die has gone through nearly 40,000 separate machining, processing, and handling operations.

## MATERIALS

ANDRITZ offers a variety of chrome steel alloys. By varying the content of vanadium, chromium, manganese nickel, and carbon, we can select a material that suits every individual requirement for a wide range of operating environments.

## PRECISION MACHINING

With our technical support, customers take great care in specifying size, shape, and pattern of the required die holes. We meticulously follow these instructions and manufacture the dies with accuracy and repeatability on the basis of an automated production process.

## HEAT TREATMENT

Our experienced operators establish heat treatment programs for dies going into vacuum hardening ovens. The heat treatment process is of utmost importance as it guarantees the product uniformity. ANDRITZ has invested substantially in the most modern hardening technology to produce a long-life and high-performance die.



# Cornerstones of our quality-assured product range

## RAW MATERIALS

Selected high-quality steels with fine grain structures give high strength and durability.

## AUTOMATED COUNTERSINK

Carefully following the drill pattern, the countersink is machined into the die track. Countersink sizes are selected to increase the pelleting performance.

## GUN DRILLING

A fast and accurate process for producing highly polished extrusion holes. ANDRITZ pioneered this technique in the early 1980s and now produces the finest pelleting dies in the world by optimizing drilling speed and controlling lubricants.

## WASHING AND POLISHING

Oil, moisture, and machining burrs are removed from the die surface prior to the heat treatment.

## MACHINING

CNC machining centers programmed with die dimensions for all pellet mill makes and models machine the basic shape of the die with precision accuracy.

## VACUUM HARDENING

A hard-wearing surface in the holes will maximize the life of the die. Air is removed to create an inert environment. The die is heated in stages controlled by a microprocessor up to a temperature of 1,010 °C, and the steel becomes a hard molecular structure as a result of this process.

## FINISHING AND FINAL INSPECTION

Quality-assured systems monitor the product throughout the entire manufacturing process. In the final stage, and as the die is machined to fit the pellet mill perfectly, a check is conducted to ensure that the product conforms to the original specifications. The dies are then packed and prepared for dispatch to all parts of the world.

# Original spare parts and service support

## ROLL SHELLS

ANDRITZ roll shells, available in several patterns, are designed to match the excellent performance of its dies. Roll shells operate under extremely harsh conditions. Therefore, it is vital that the dimensions are accurate and the hardening process is of the highest standard. ANDRITZ will assess your needs and help select the correct design for the application.

## BEATERS

Profiled and hardened on our premises, the beaters have established an excellent, worth-the-money reputation. Now in the third generation of steels, beaters combine good wear resistance properties with strength and durability. ANDRITZ manufactures beaters of any size or shape to fit all hammer mill models.



Roll repair



## GLOBAL SUPPLIER – LOCAL PRESENCE

With sales, service, engineering, manufacturing and production sites located all around the world, ANDRITZ Feed and Biofuel is truly a global organization with a local presence. ANDRITZ is vital to ensuring a reliable global supply of aqua feed, animal feed, pet food, and biofuel. With full process lines accounting for half the world's production of aqua feed and biomass alone, we continuously support leading producers in achieving the highest levels in safety, quality, and control from feedstock to final product.

How can we help grow your business?

### ANDRITZ Feed and Biofuel A/S

Glentevej 5–7  
6705 Esbjerg, Denmark  
p: +45 72 160 300  
andritz-fb.dk@andritz.com

#### AUSTRALIA

p: +61 3 8773 4888  
andritz-fb.au@andritz.com

#### COLOMBIA

p: +57 (1) 744 8200  
andritz-fb.co@andritz.com

#### ITALY

p: +39 (0445) 575 695  
andritz-fb.it@andritz.com

#### TURKEY

p: +90 232 570 38 00  
andritz-fb.tr@andritz.com

#### BANGLADESH

p: +88 (02) 9844800  
andritz-fb.bd@andritz.com

#### DUBAI

p: +971 4 299 5555  
andritz-fb.uae@andritz.com

#### MEXICO

p: +52 443 323 1530 ext 364  
andritz-fb.mx@andritz.com

#### UK

p: +44 1482 825119  
andritz-fb.uk@andritz.com

#### BRAZIL

p: +55 47 3387 9146  
andritz-fb.br@andritz.com

#### FRANCE

p: +33 24 75 06 364  
andritz-fb.fr@andritz.com

#### NETHERLANDS

p: +31 40 2627777  
andritz-fb.nl@andritz.com

#### USA

p: +1 570 546 1253  
andritz-fb.us@andritz.com

#### CHILE

p: +56 2 24624608  
andritz-fb.cl@andritz.com

#### GERMANY

p: +49 2104 9197 0  
andritz-fb.de@andritz.com

#### POLAND

p: +48 60 906 1037  
andritz-fb.pl@andritz.com

#### VIETNAM

p: +84 8 6253 9434  
andritz-fb.vi@andritz.com

#### CHINA

p: +86 21 5774 5781  
andritz-fb.cn@andritz.com

#### INDIA

p: +91 87544 15287  
andritz-fb.india@andritz.com

#### SOUTH AFRICA

p: +27 82 781 0808  
andritz-fb.za@andritz.com

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# ANDRITZ

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1262 GB