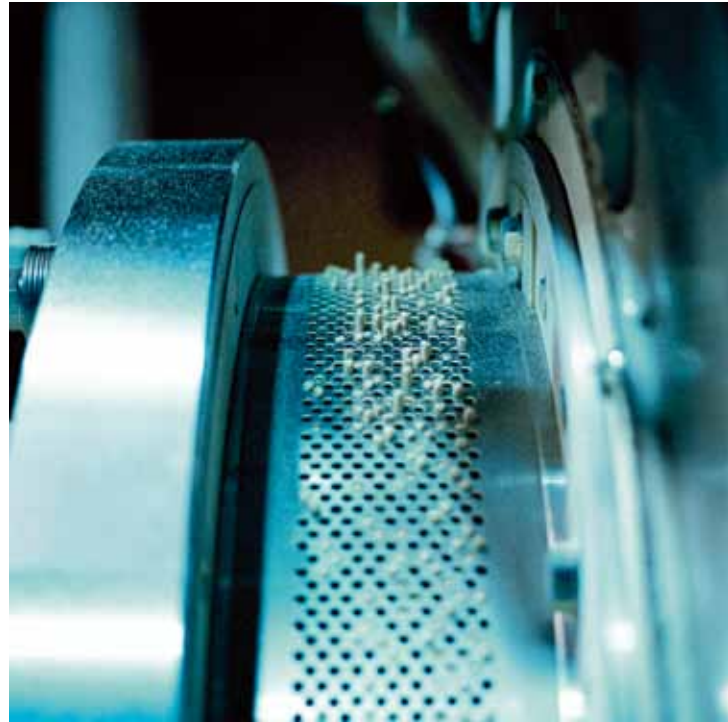


Bühler Dies and
Roller Shells –
High-precision
Parts for all Types
of Pellet Mills.



Bühler dies and roller shells. Increasing lifetime and profits.

Bühler specializes in the manufacture of high-precision dies and roller shells – not only for Bühler pellet mills but also for all other types of pellet mills and brands. Customers from all over the world trust in our experience to design and produce dies and roller shells with a superior quality. Bühler dies and roller shells are easy to mount, start easily and last longer.

Decades of experience in the pelleting industry and profound manufacturing know are the fundament for Bühler's high quality products. Bühler offers a vast range of dies and roller shell designs.

Proper material choice

It all begins with the proper selection of the right material. Depending on the customer's raw material formula the right metal alloy is selected to resist the high abrasive and corrosive forces in the pelleting process.

Bühler benefits:

- Dies and roller shells for all brands
- Quick production start
- Improved throughput
- Long lifetime
- Reduced energy costs
- Short delivery times, worldwide

Warehouse

- Large warehouse stocked with high quality forged blanks
- Ensures short delivery times



Machining

- CNC machining centers for high precision
- High precision machining enables quick and easy



Gun drilling

- Polished surface of media channels
- No limitation of hole patterns thanks to the latest gun



Manufacturing process. Dedication to quality.

For roller shells the 20MnCr5 or the 100Cr6 are commonly used steel qualities. Roller shells may be corrugated, dimpled, open or closed end matching the different characteristics of the raw material to be pelletized. In addition they may be case hardened or through hardened resulting in a more brittle or flexible material. The right roll shell design makes a difference when it comes to lifetime and throughput.

For the majority of the applications the X46Cr13 alloy is the first choice for dies. The right alloy in combination with the proper heat treatment results in a through hardened stainless die for a trouble free operation.

Accurate manufacturing process

Every die starts with a forged ring, which is especially rolled and checked for any imperfections. Computerized gun drilling machines produce holes with a very smooth surface, eliminating the need for any post-processing.



Counter drilling

- Different counter drilling for different products
- Counter drillings enhance pelleting performance



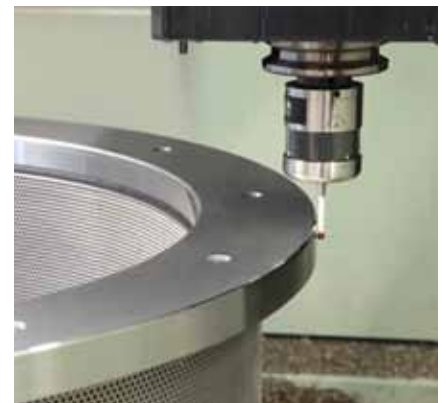
Vacuum hardening

- Quenching and tempering in a vacuum and nitrogen atmosphere
- Low dimensional distortion and smooth surface



Quality assurance

- Measuring of hardness and dimensions
- Quality data recorded for traceability



Logistics. Fast and reliable.

Every hole is perfectly spaced so the holes will wear evenly. For obtaining a uniform die quality the hardening and tempering process is of the utmost importance. Bühler uses the latest vacuum furnace technology for hardening the dies. The heat treatment takes place in a separate building – ensuring a clean atmosphere for a uniform hardening process.

Before all products are shipped to customers the hardness and dimensions are double checked and all measured data are recorded for traceability. This ensures that only perfect products leave the company – to every corner of the world. Thanks to a large warehouse with raw material and efficient production facilities Bühler offers its customers excellent products and short delivery times.



Running-in

- Running-in process for deburring of dies and shells
- Dies are delivered ready for use



Delivery

- Best possible delivery times
- Worldwide delivery



Services

- Consulting for optimized hole patterns according to customer demands

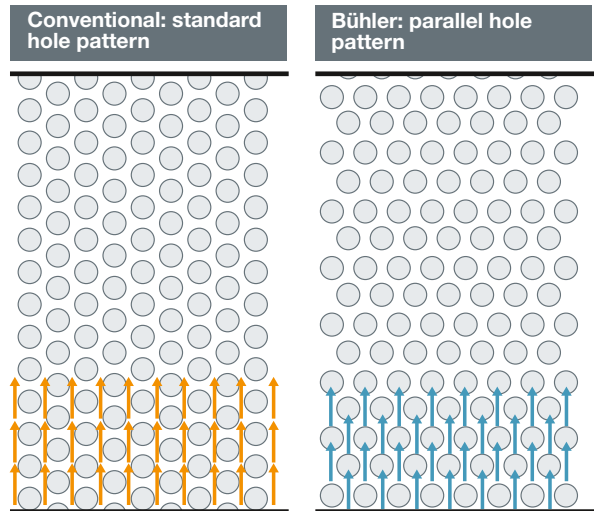


Optimized hole pattern. Less power – more throughput.

When it comes to pellet quality and throughput, the design of the die and roller shells makes the difference. Bühler uses a specially developed hole pattern to increase throughput and save electrical costs. Compared to non optimized hole patterns a capacity increase of up to 20% has been measured. In addition, the so called parallel hole pattern reduces the forces between rollers and die which lowers the risk of die breakages and results in a more uniform wear.

The counter drilling design also has an influence on performance and should be matched to the pelletized product formula. From straight to cone desing there are hardly any limits to the counter drilling design.

Ask Bühler for optimizing your hole pattern to increase lifetime and profits. We are here to serve you!



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1 2 3 4 5 6

A

B

C

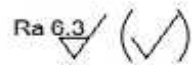
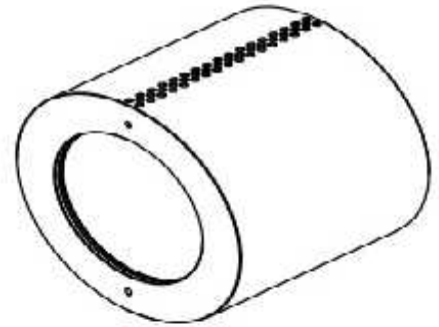
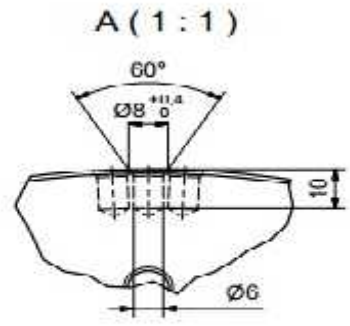
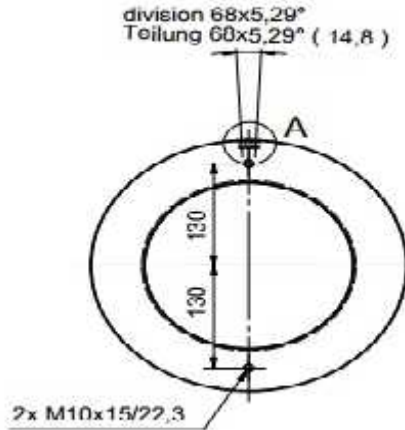
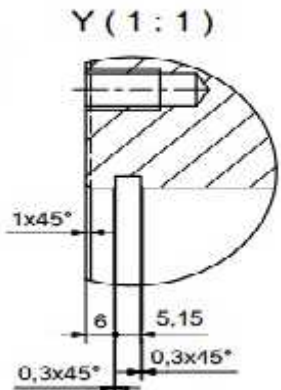
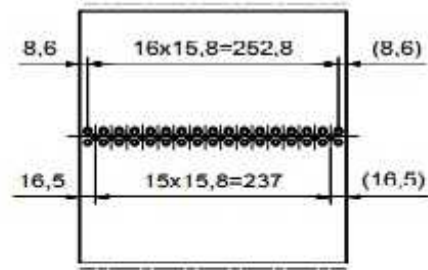
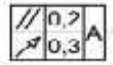
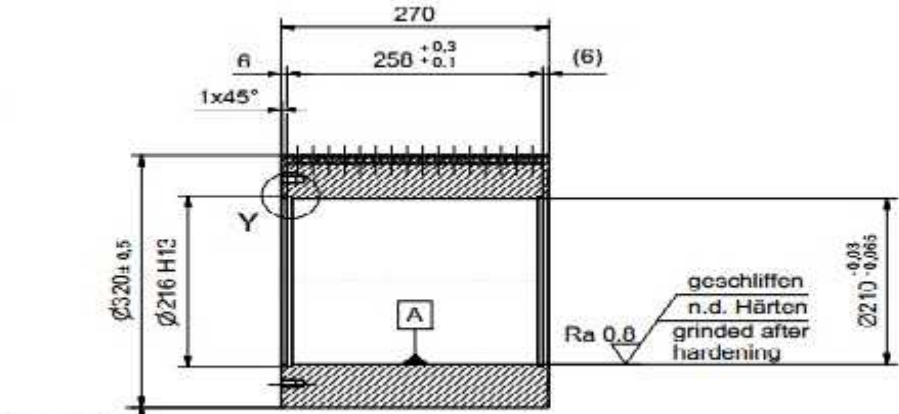
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A

B

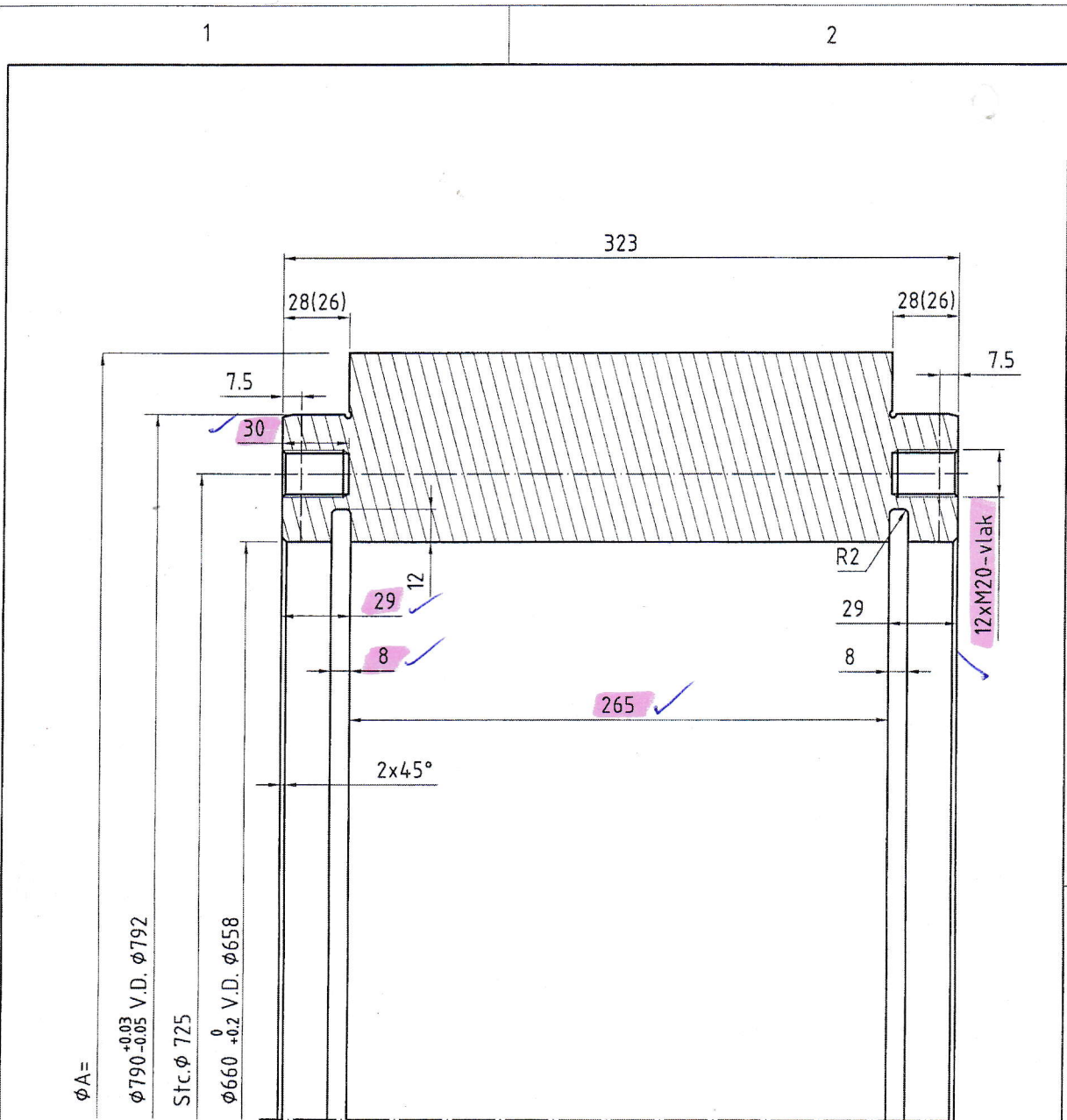
C

D



einsatzgehärtet 62 ± 3 HRC Fht 1,2 ...1,5 (Lochzahl = 2244)
 casehardened 62 ± 3 HRC Eht 1,2 ...1,5 (Hole number = 2244)

General tolerances according to Duhler document: UAD -24200 / Allgemaintoleranzen gemäss Duhler Dokument: UAD - 24200	
Description: roller shell perforated 265 Walzenmantel gelocht 265	Material type: 100X100 L100 Originator: Duhler, 1. level 26.11.08.26 H10000 L000004, P100
Document Number: LS0000734430 Revision: 05 Scale: 1 : 5	Item Number: DPHD-10057-010 Revision: 05



ORIGINEEL

2 sleuven 180° beide zijden tussen de boutgaten
 32 H9 breed 7.5 mm diep 90° gedr.t.o.v. andere kant

$12.5 / (6.3)$

C	Datum	Benaming: DPHD - 265			Mat. : -	
	by	Bestemd voor:			Schaal : n.t.s.	
C	Omschrijving	Toegestane afw. niet getol. maten		Am.proj. Tekening nr.: 4C 11097	Gefekend : J.T.	
		0 < 200	200 < 2000		> 2000	Datum : 21-08-'13
		± 0.2	± 0.5		± 1	OPP. RUWHEID VLG NEN 630-IV MAATTOLERANTIES VLG NEN 2365 PASSINGEN VLG ISO
Rev	Deze tekening is het eigendom van TIJDHOF PERSMATRIJZEN welke daarop auteursrecht heeft Zij mag noch gekopieerd noch aan derden ter kopiëring of namaking getoond worden zonder toestemming der B.V.					