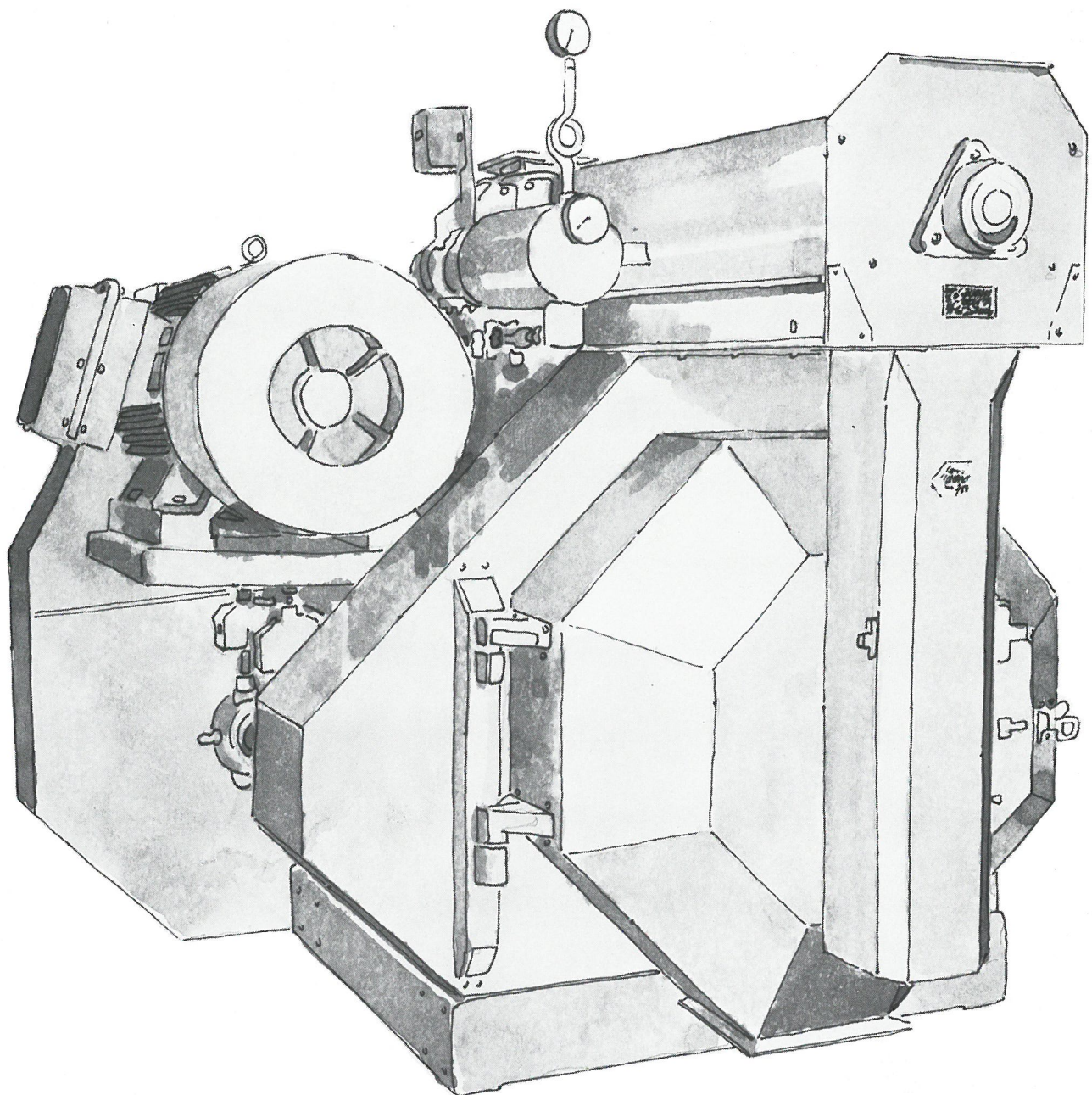


'COMPACT' Van Aarsen's new series of pellet mills



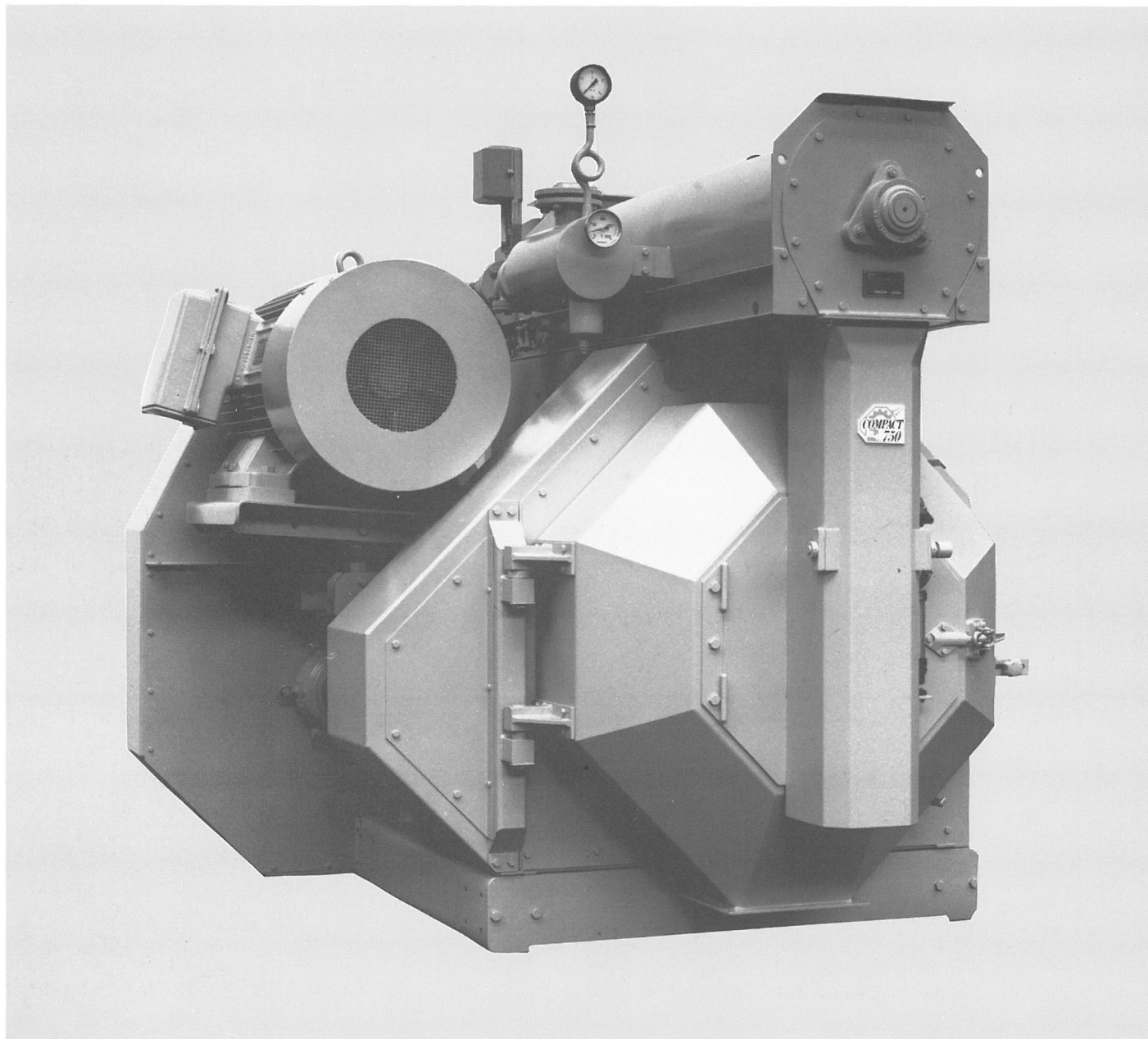
VAN AARSEN

If you're looking for machines, installations or entire turn-key plants for the feed industry, Van Aarsen automatically enters the picture. This is not only the case in the Netherlands, but all over the world, from China to Scandinavia and from Egypt to Canada. This is the result of many years of professional experience and know-how in the field of feed technology, engineering and production based on requirements from the practice of the compound feed producer.

On the basis of this expertise Van Aarsen has developed a brand new series of pellet mills. An attractive product in many ways which excels in its technical performances, in its maximal operational safety, in its proverbial service life span, in its simple maintenance properties and in its more "value" for less "money". That's why Van Aarsen calls it a perfect mill.

Advantages of pelletizing

- Optimal feed digestion, better feed conversion
- Little wastage of feed by the animals
- Considerable decrease of the production of dust
- No segregation of the end product
- As a result of the high temperature of the production process microbes are killed and the risk of contamination is minimized
- Better transport properties than meal products
- Higher specific gravity, i.e. a smaller transport volume



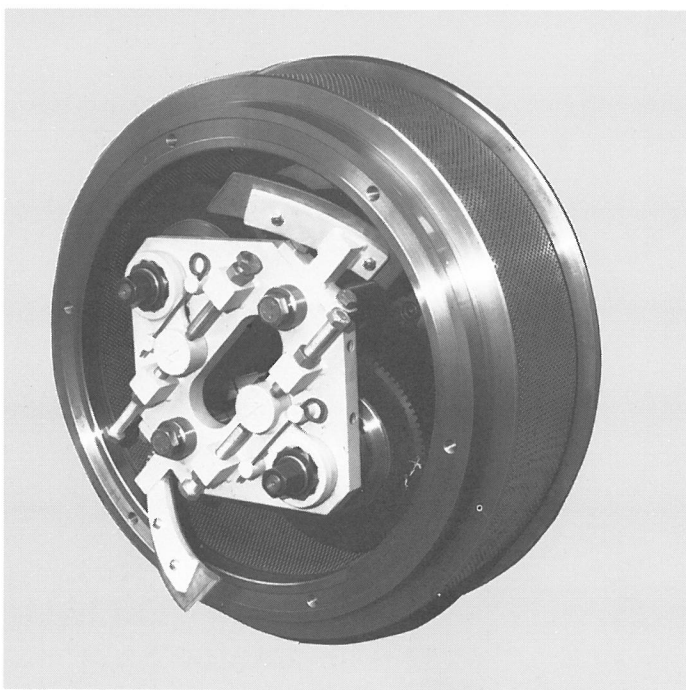
Process-technological features

Low die velocity

Many years of experience with our pellet mills have shown that a low peripheral velocity of the die is the basis of a good pellet quality, a high capacity and a steady operation of the machine. This is the result of a more constant "flowing process" in the pellet mill. The flow of powder which has to be ventilated is less disturbed. Thus it is possible to press a thicker product layer through the die at each revolution.

Large die surface area

A large die surface area extends the retention time of the pellets in the die. The longer the product remains in the die, the better the final quality of the end product will be. This results from the positive influence a longer time span has on the binding process.



Moreover a large die surface area has a positive influence on the energy consumption. The combination of a large die surface area and a low peripheral die velocity results in a very economical machine.

Diameter of the dies and the rollers

The bigger the diameter of the dies and the rollers is, the more favourable the inlet angle between the roller and the die will be. Thus it will be easier to press the product through the die or it will be possible to press a thicker layer at each revolution, which will save a considerable amount of energy. It will even be possible to process products which are difficult to pelletize - such as fibrous products.

Of course a similar machine jams less easily, as a result of which the ease of operation increases and the maintenance costs decrease.

Hence lower wear part costs will be the result of:

- the favourable roller/die diameter ratio
- the smaller chance of slipping of the rollers

Two directions of rotation

The mill can be provided with a bi-directional shaft, as a result of which the die and the rollers will wear less.

Optimal capacity

The inlet blades guarantee an optimal distribution of the product over the rollers.

The main shaft and the rollers are angularly adjustable. Thus the pellet mill can be adapted to specific production conditions, as a result of which an optimal capacity can always be realized.

Construction features

Pellet mill composition

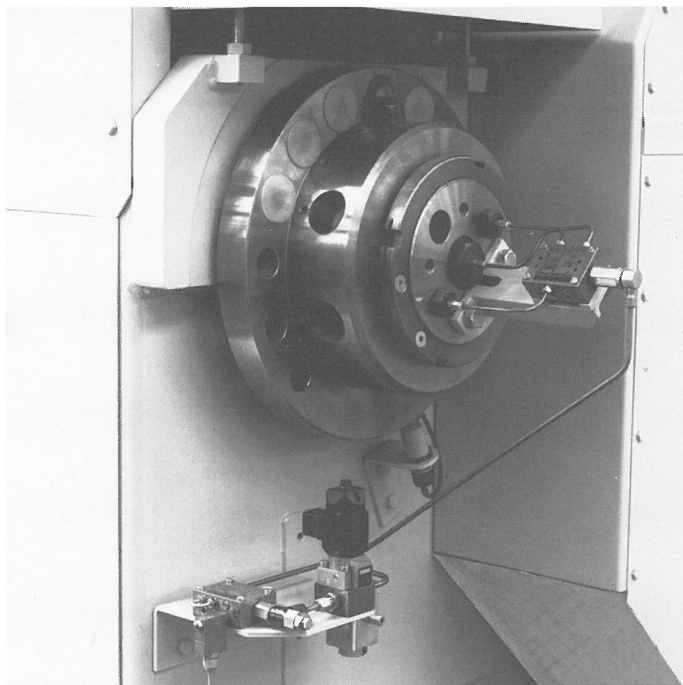
- portal base onto which the door construction and the casing are mounted
- the design of the mill with one electric motor ensures an optimal accessibility to the die fastening
- the mill can be equipped with a double door, which is provided with a leveller
- all parts which come into contact with the product are made of stainless steel.

Solid main shaft

The solid forged-steel main shaft has been equipped with hardened bushes into which the roller shafts have been fitted. This construction is wear-resistant. Moreover lubrication canals for the bearings of the main shaft and the rollers have been provided.

The main shaft can be equipped with facilities for:

- rollers which can be adjusted during the operation and which are equipped with a positioning unit
- a roller distance meter, revolution counter and slip meter.



Die holder with a conical seating

The die holder has been fixed to the main shaft by means of an over-dimensioned bearing system and has a conical seating in which the die is fastened without any play by means of six bolts. This construction prevents weakening of the die and allows absolutely constant fastening of the die. Hence die fracture will be impossible.

Optimal sealings

The bearings are protected against the penetration of liquids, steam and dust by means of labyrinth sealings and sealing rings.

Thus no damage will occur and a longer service life span of the bearings will be the result.

Lubrication of the pellet mill

Both the bearings of the main shaft and of the rollers are lubricated by separate canals which ensure an optimal grease supply for all bearings. The lubrication canals for the rollers have been fitted into the main shaft in such a way that they end in the roller bearing via the shaft ends of the rollers. Thus the lubrication canals cannot be damaged.

If necessary, the lubrication can be carried out automatically and controlled electrically.

Protection devices

The pellet mill is protected against overloading by a shearing pin protection device.

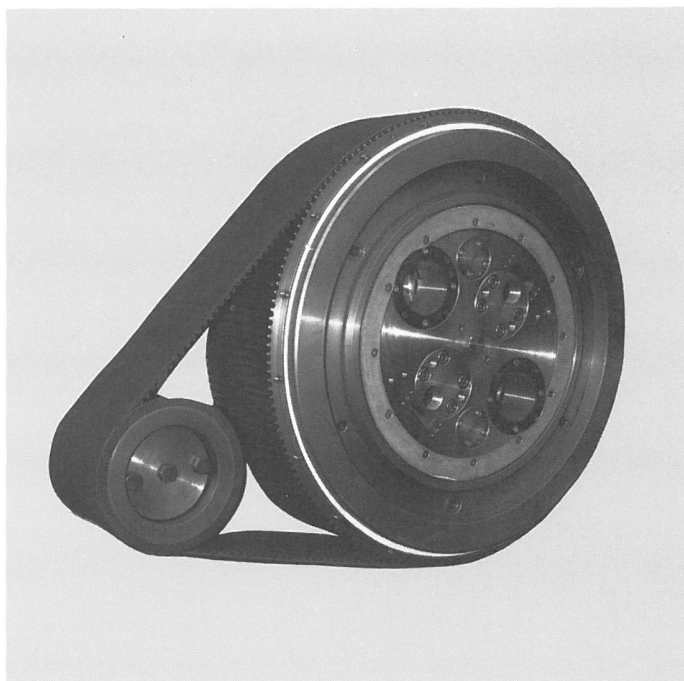
Slipping of the V-belts is prevented by an electronic slip protection device.

The opening of doors and hatches is prevented by pilot switches.

Drive

The machine is driven by one electric motor via a primary V-belt transmission and a secondary geared belt transmission. The primary V-belt transmission has been chosen because it clearly produces less noise at this number of revolutions than a geared belt transmission.

A geared transmission has been chosen for the secondary transmission, because it acts as a compact and slip-proof drive and because it does not have to be retightened.



Load-related dosing system

Dosing system with a dosing screw:

- made of stainless steel
- electronically controlled drive

Molasses/steam mixer

The molasses/steam mixer has been designed as follows:

- it is made of stainless steel
- it has been equipped with a steam valve
- it has been equipped with injection openings for steam and molasses
- via a steam dome the steam is supplied through various openings in the longitudinal sense of the casing of the mixer
- it has been equipped with a mixer shaft which has been fitted with adjustable cutter holders and exchangeable, wear-resistant cutters.

Delivery programme of the pellet mill

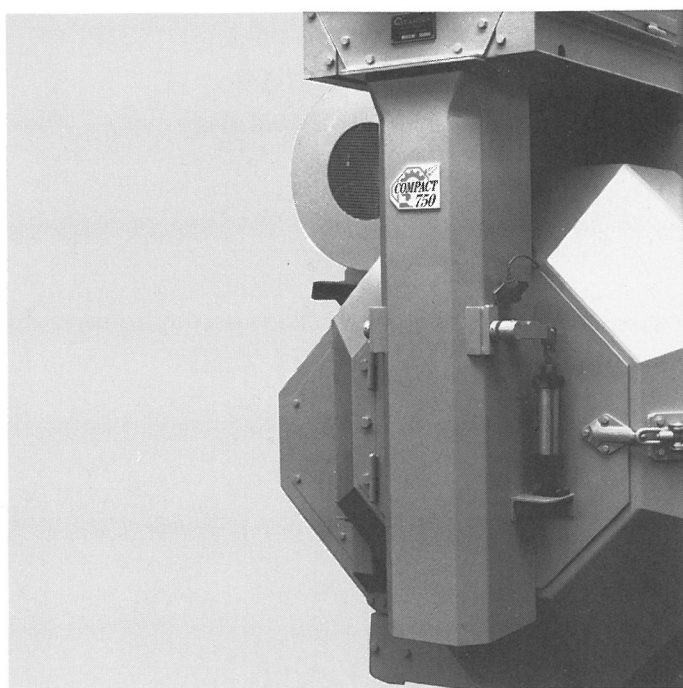
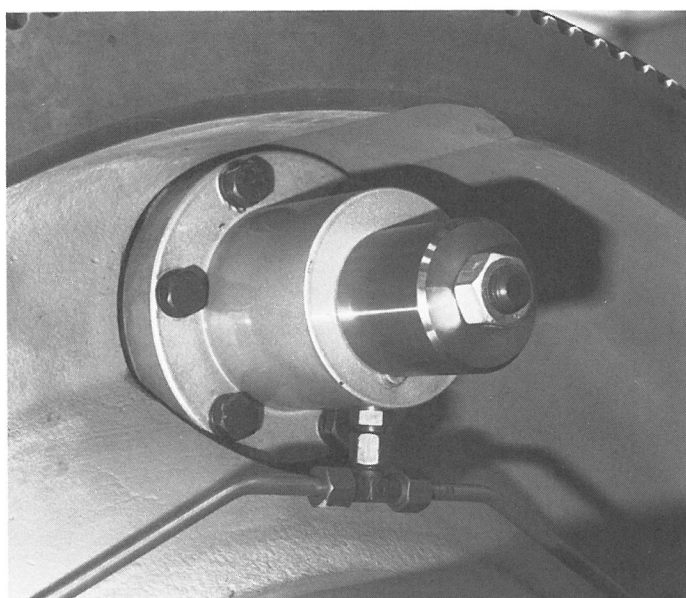
The pellet mill has been equipped with:

- a stainless steel door
- a leveller
- lubrication of the bearings of the main shaft and the rollers via separate canals in the main shaft

- a slip-protection device on the V-belt transmission
- pilot switches on the door and on the covers
- assembly tools for the die and the rollers

Options

- automatic lubrication of the bearings of the main shaft and the rollers
- electric control of this lubrication system (quantity control)
- air-operated discharge valve
- one additional leveller
- spring-mounted retraction mechanism for the die with a hydraulic discharge system
- bi-directional rotation of the die
- facilities for a hydraulic roller adjustment unit with a slip meter and a roller distance meter (holes, sections, canals)
- hydraulic roller adjustment unit with a slip meter and a roller distance meter and a positioning unit
- slow-turning mechanism
- nut tightener
- automatic load control



Technical specifications:

		COMPACT 600	COMPACT 750	COMPACT 900
Drive power				
- main motor mill	kW	90/110	132/160	200/240
- mixer motor	kW	7,5	11	15
- dosing unit	kW	1,3	1,3	3
number of motor revolutions	rev/min	1450	1450	1450
diameter of die	mm	600	750	900
width of running surface area	mm	200	215	225
effective pressing surface area	cm ²	3770	5066	6362
effective pressing surface area	cm ² /kW	34,3/28,6	38,4/31,7	31,8/26,5
number of revolutions of die	rev/min	152,8	125,6	104
velocity of die*	mtr/sec	4,8	4,9	4,9
diameter of roller	mm	285	360	440

* deviating die velocities are possible

Intervening alterations reserved

Consult Van Aarsen's experts for extensive information and advice

This product folder has not dealt with all aspects of the new series of pellet mills. The new pellet mill has many other qualities not yet mentioned, which would pleasantly surprise you.

This introduction may not provide an answer to your specific questions with regard to the

application of the pellet mill in your company.

You may require certain modifications.

Make an appointment with one of Van Aarsen's experts for a discussion about the pellet mill and your company. After all a perfect pellet mill concerns you too



Telephone: (0)4747-9444

Telex: 36839 aarse nl

Telefax: (0)4747-9223

Van Aarsen Machinefabriek B.V.
Heelderweg 11, 6097 EW Panheel
P.O. Box 5010, 6097 ZG Heel
The Netherlands