



PELLET MILL *N-Midi*



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NOVA PELLET

Arco International S.r.l. – Machinery and plant for pellet production

Via Brescia, 56 – 25026 PONTEVICO (BS) - Tel. +39 (030) 9307670 – Fax +39 (030) 9307961 –

E-Mail: commerciale@novapellet.it - info@novapellet.it - www.novapellet.it



N-MIDI pellet mill machine is projected and manufactured in accordance with CE norm about construction's prescriptions and safety. Besides, Nova Pellet has obtained the **PATENT** for the innovative system of loading of the die and compression area. With **N-MIDI** you will save money and get **lower pellet production cost**, because we have developed a basic **low relation between electrical kW consumed and pellet production Kg per hour (ENERGY SAVING)**. In fact, **N-MIDI** has been projected and developed properly for pellet production and all technologies and mechanical solutions are chosen to get the best economic advantageous respect other producers and obtain the **best quality pellet** on market, completely without additives, from natural origin or not. Therefore, with **N-MIDI** and others Nova pellet mill machineries, you can sell pellet both to private or industrial market and gain on **low maintenance and production cost**.

N-MIDI pellet mill has the following general specifications, valid for each model:

PELLET MILL	Unit of measurement	N-MIDI
Dies internal diameter	mm	400
Rollers diameter	mm	182
Pellet diameter	mm	6 or 8 (different on request)
Dimensions	mm	1900x1400x2200
Weight	Kg	4500





Technical specification:

PELLET MILL N-MIDI	A	B	C
ELECTRIC POWER			
Active power installed	55 kW	75 kW	90 kW
Electric source	V 400 +/- 10%		Hz 50/60
PELLET PRODUCTION PER HOUR			
<u>Kg/h</u> soft materials (like spruce, pine, poplar and olive tree)	550/700	750/900	800/1100
<u>Kg/h</u> hard materials (like beech, oak and chestnut tree)	450/650	650/850	750/950

General information for raw material to be used to load pellet mill machinery:

- ◆ Consistency : saw dust or material size among 0.5 mm and 1.5 mm
- ◆ Moisture rate : between 10% and 14%
- ◆ Characteristics : every kind of wood tree or other material, without metal residuals

N-MIDI pellet mill is complete by:

<p>Electrical cabinet with Siemens PLC S7 1200 and remote modem connection</p>	
<p>Dozing screw lead by frequency driver (optional frequency driver on main engine)</p>	



**Rollers' setting and
easy and fast cleaning by front doors**

ROLLERS WITH DOUBLE HOLDER



**Water/air spray
to humidify the raw material**



Mechanical sensor level



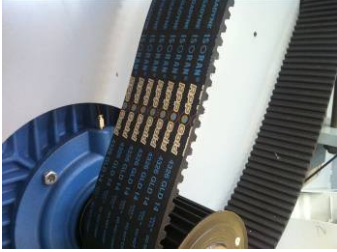
**End of cycle oil pump
and
automatic grease lubrication**



Suction plugs for dust and air





<p>Die Temperature control with display</p>	 A photograph showing the interior of a pellet mill die. The die is a long, cylindrical metal tube with a blue-painted interior. A metal roller is visible inside the die, and a small display screen is mounted on the side of the die.
<p>High resistance rubber belt for power transmission</p>	 A close-up photograph of a high resistance rubber belt. The belt is black with a textured surface and is shown in a curved position, likely around a pulley or roller. The belt has some text printed on it, including "NOVA PELLET" and "S.A.".

Technical innovations of N-MIDI pellet mill:

- Same innovative and **patented** N-PLUS system of loading of the die and compression area
- **Roller's setting** and adjustment **outside** the main door of the machine, that means no running cycle stops for setting
- Pellet production **without additives** or glues, from natural origin or not
- High efficiency engines **IE2** norms (ENERGY SAVING)
- Frequency driver on main engine (Optional)
- **Dozing screw** to load saw dust into the die **regulated by a frequency driver**
- **Rollers attached in two sides** to the structure of the machinery for low wearing time
- **Ring die** with easy change system and **low wear time for the tools** of the pellet mill (die and rollers)
- Vegetable oil for start and stop production cycle (to avoid saw dust hardness inside the dies during machinery stop)
- Air and water mixer to **humidify the raw material**
- Compact size machinery
- **Fast tools change** and front doors opening by the direct front machine doors that permits short time and low cost for maintenance and cleaning
- Belt driven transmission with high resistance rubber belt
- **Automatic grease lubrication** for rollers and main shaft
- **MADE IN ITALY**



General specifications of N-MIDI pellet mill:

- Pellet mill with **mechanical** and electrical functioning system
- System control and management by **PLC Siemens** with touch screen
- Electrical cabinet with remote connection **modem or ethernet** (optional)
- **Mechanical rollers regulation** (tools that permit the rotation of the dies)
- Saw dust loading system is composed by a mini-silos and a screw regulated by a frequency driver connected to the die ampere consumption
- Front side pellet unloading
- **Dies' holes' length from 14 to 50 mm**, in accordance to the raw materials you need to pelletize (saw dust or other vegetal or agricultural residuals)
- **Mechanical sensor level** on the saw dust mini-silo
- Manual grease lubrication for engine
- Electrical safety locks for main doors
- Engine power transmission area protected
- Connectable to a **dust and steam suction line**
- **Instruction manual and CE conformity certificate**

Nova Pellet staff is able to supply immediate and complete assistance and support on its pellet mills installed all over the world. Besides, Nova Pellet projects, manufactures and supplies all spare parts of all the models of Pellet Mill Machinery:



DIE



ROLLERS



N-Pack

Nova Pellet project and developed a **packaging modular** structure to install besides **N-ECO** models. **N-PACK500** permit to package directly pellet production into 15 kg bags: a vibrating screen cleans the pellet, then a tilted conveyor belt load a hopper to storage pellet, here you can package the pellet into 15 kg bags, opening the pneumatic valve. Then you can weld the bags and sell it.

N-PACK500 is composed by:

- Vibrating screen model N-VB1100 for 55 kW and N-VB1500 for 75 - 90 kW with suction plugs;
- Tilted conveyor belt with suction plugs;
- Pellet cooler N-CO700 for pellet cooling with vibrating unloader (OPTIONAL);
- Bucket elevator with suction plugs (OPTIONAL);
- Pellet storage hopper 2 - 4 Mc with sensor level;
- Big bag support (OPTIONAL);
- Pneumatic valve for double weight system;
- Weighing bag machine from 5 to 30 kg with electronic digital control 24VDC;
- Semi-automatic Plastic bag welding machine 220V;
- Plastic bags support for easy packing;
- Support for weighting and welding machine;
- Electrical Cabinet.

In the following picture you can see, first, **N-VB1100** vibrating screen for pellet, then **N-PACK500** together with Big Bag support packaging system (optional):





In the following picture you can see
N-MIDI pellet mill installed with N-PACK packaging system:



NOVA PELLET
SALES OFFICE

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