spinder
DAIRY HOUSING CONCEPTS

Manure Disposal

Product catalogue

E-BOOK

march 2020

The benefits of comfort

Spinder since 1973

Tjip Spinder started manufacturing and selling dividers and feed fronts in 1973, using the name Spinder Stalinrichting. What started as a metal workshop, quickly became a small factory and eventually grew into Spinder as we know it today: a leading, advanced manufacturing company with a modern range for contemporary dairy farms.

Tjip Spinder was a real all-rounder and expected the same from his employees. "You were given an overall and a task and that was it", says Dick van der Meer, employee since the start and now co-foreman in the assembly department. With the ink barely dry on his technical school diploma, he went to see Tjip Spinder in 1973 to ask if there was work for him and was told he could start immediately. "Tjip set high standards. Not just for commitment and quality, but also for behaviour. But he didn't go easy on himself either. He was the first to arrive at work at six in the morning and he would only go home late at night when his wife decided that enough was enough and came to fetch him. They lived next door to the workshop."

Spinder has always responded to developments in dairy farming. As livestock increased, so did manufacturing and the range changed along with the requirements and insights of farmers. Especially in the 70s and 80s of the last century, the period that farmers opted for cubicle systems en masse, Spinder experienced considerable growth.

Spinder's growth during the early years was mostly thanks to two good friends of Tjip, who both owned a construction company. They were barn builders and introduced Spinder when the barns they built also needed equipment. When son Pieter took the reins, he made some changes and implemented innovations. This caused a large improvement in efficiency. It was no longer expected that everyone could do 'everything': the work was divided over various departments. After Pieter, who went to Canada to run a farm, Spinder ceased to be a family-run company in 1995 and was taken over by management. The company is still owned by the board.

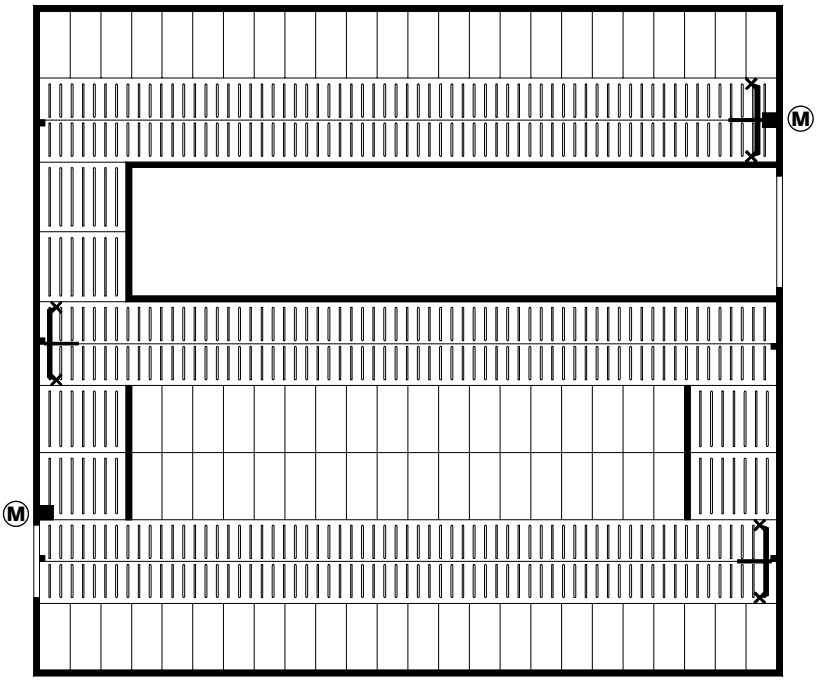
Production manager Sjouke van der Meer joined Spinder in 1981. Like Dick van der Meer, he has seen many changes within the company: "Highlights, growth, less successful periods, changes to management, product innovation, you name it. But one thing has remained unchanged and that's the commitment of all colleagues to Spinder. Although Spinder hasn't been a family-run business since 1995, it still feels like family here. And just like in 1973, the bar is still set high. Everything that leaves these premises is of absolute top quality. We are proud of that and that's what we work for, together."

In 2017 Spinder acquired the BUC brand, specialist in dual waterbeds.

As market dynamics are demanding Spinder has had a new premises build, fully in operation from 2020.

Manure disposal

- Drive unit on console



- Rope scraper for grid floors with Spinder PE-rope in a situation with 3 alleys

- Rope driven

Scraper with Spinder PE rope drive

In order to be able to work quickly and efficiently and to promote the welfare of your cows, it is important that passages and cubicles in the barn are clean and dry. For that reason, the proper and rapid removal of manure will be necessary. Moisture and manure on floors may cause sliding and falling and constitute excellent breeding places for pathogenic bacteria. These are often the cause of serious leg and hoof problems. Besides, the manure stuck on the legs of the cows make for dirty stalls and, as a consequence, for dirty udders.
To prevent these problems, Spinder offers a manure-scraper unit consisting of two drive units with drive drum, a number of plastic corner wheels and one or more scrapers that are driven by Spinder PE rope. A very animal-friendly and maintenance-free installation with which the floors can be kept clean and dry.

Important features:
- The system consists of two drive drums, which can be placed both on a console and on the floor;
- The unit is constructed in a heavy and robust manner. Virtually all parts have been hot-dip galvanized;
- The synthetic corner pulleys are maintenance-free;
- Spinder PE rope is an 8 or 10 mm thick synthetic rope with a tensile strength of 6000 and 9000 kg respectively, and a negligible stretch (ca. 3 a 4 %) to ensure a smooth, quiet run of the scraper. The rope has a long service life and is above all very animal-friendly;
- Standard fitted with digital timer, frost protection and emergency stop;
- A suitable solution for every barn, even with unequal passage lengths;
- Most suitable for an odd number of dung passages.

Important advantages:
- Cleaner passages and cleaner livestock;
- Less hoof problems and cleaner stalls;
- Using less sawdust or straw;
- Milking more hygienically and faster with cleaner cows;
- Therefore, a better milk quality.

Dung scrapers
As well as driving a slatted floor scraper, the Spinder PE rope drive can also be used for driving the combi-scrapers.

65.12.455	Drive unit PE-rope on console, 0,55 kW
65.12.465	Drive unit PE-rope on console, 0,75 kW
65.12.450	Drive unit PE-rope for concrete floor, 0,55 kW
65.12.460	Drive unit PE-rope for concrete floor, 0,75 kW
65.12.130	Mounting set drive unit for grid floor
65.12.140	Mounting set drive unit for concrete floor
65.12.185	Corner wheel/PE-rope/for grid floor
65.12.180	Corner wheel/PE-rope/for concrete floor
65.12.175	Scraper stop for grid floor
65.12.170	Scraper stop for concrete floor
65.84.125	Spinder PE-rope 10 mm, per meter

All Spinder PE rope installations can be controlled using the Prinzing electronic control panels. The operating procedure of the electronic control panels is based on continuously measuring the power consumption of the drive motor. The drive motor is turned off when the set value for maximum traction / power consumption is exceeded.

Important features of the Prinzing control panel:
- Continuous traction measurement by measuring the power consumption from drive motor;
- Automatic or manual setting maximum traction / power consumption;
- Possibility for various values for maximum traction / power consumption with direction of movement forward or in reverse;
- Automatic program start on the freely programmable starting times in the integrated timer;
- Automatic program start via temperature sensor (frost program);
- Connection for external control elements (e.g. push buttons, safety switch strips, emergency stops, etc.) and an external fault signal (siren).

- Electronic control BASIC - ESB210

- Electronic control Comfort - ESC200

- Electronic control Premium - ESC300 includes wireless remote control

Electronic control BASIC - ESB210

- Suitable for one system, consisting of two drive units;
- Turned off when the maximum traction is exceeded;
- Learning programme;
- Automatic adjustment to power fluctuations in the electricity network;
- Choose from manual (push buttons) and fully automatic (timer);
- Max. 20 starting times per day in the timer;
- 2 scraper programmes;
- Adjustable parking position;
- 2 frost programmes;
- The settings will be preserved in the event of a power outage;
- Illuminated display.

61.06.042	Control panel, model Basic - ESB210
61.06.026	Main switch

Electronic control Comfort - ESC200

Compared to the Basic - ESB210 extended with:
- Animal and obstacle detection;
- Depositing in the centre is possible;
- Moving step by step is possible;
- Connection for the controls of an external relay.

61.06.044	Control panel, model Comfort - ESC200
61.06.026	Main switch

Electronic control Premium - ESC300, with remote control

Compared to the Basic - ESB210 extended with:
- Suitable for up to 6 systems with 2 drive units each;
- Remote control with a range of up to 300 metres;
- Loading terminal for remote control
- Individually programming of each manure removal system;
- Max 24 starting times per day;
- 4 scraper programmes;
- Continuous registration of the entire operation;
- Log file exportable via SD card, read-out e.g. in Excel.

	Electronic control Premium - ESC300 Electronic, remote-controlled switch box with, complete with hand-held transmitter, charging station for hand-held transmitter and reception aerial
61.06.161	Control unit, model Premium - ESC300-1
61.06.162	Control unit, model Premium - ESC300-2
61.06.163	Control unit, model Premium - ESC300-3
61.06.164	Control unit, model Premium - ESC300-4
61.06.165	Control unit, model Premium - ESC300-5
61.06.166	Control unit, model Premium - ESC300-6
	Accessories for all control boxes
61.06.026	Main switch
	Optional:
61.06.068	Emergency switch (1 emergency button per manure removal system is recommended)
61.06.169	External receiver (if necessary e.g. in 2nd building)

- Slatted floor scraper with trapezium end

- Slatted floor scraper

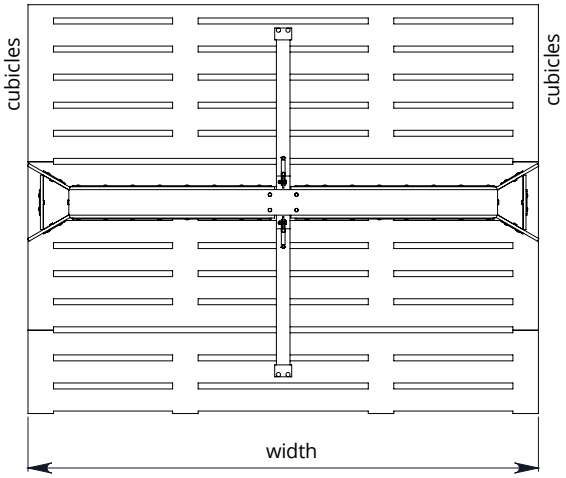
Slatted floor scraper

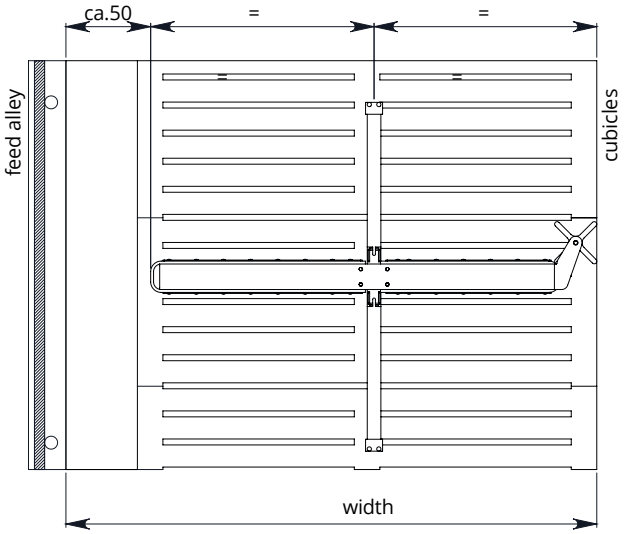
The scraper is the heart of the slatted floor scraper unit and determines the final scraping results. The Spinder slatted floor scraper has a modular structure. From a basic frame, a suitable scraper can be assembled for each type of slatted floor - with or without a rubber top layer - and for each dung passage.

Important features:

- Basically, no protruding parts that could harm the animals;
- Fully hot-dip galvanized according to ISO 1461: 2009;
- Very accurate depth adjustment by means of 4 adjusting bolts;
- Fitted with special rubber star wheels on the sides of the slatted floor scraper to get around support posts of e.g. the feed front, water mains, etc.;
- No lateral guidance required. On the place where a stall edge starts or ends, the rubber star wheel turns the slatted floor scraper in a flowing movement between or from the side guide;
- From the point of view of animal welfare, it would be recommended to apply a 50 cm shorter slatted floor scraper with one rubber star wheel between the stall floor and the feeding passage;
- The scraper is kept as flat as possible (approx. 12 cm high) for minimal effects on the walking movements of the cows;
- Fitted all around the scraper is a special wear-resistant rubber strip for optimal cleaning of the slatted floor;
- Simple attachment of the Spinder PE rope to the scraper by means of the special rope socket provided;
- Also suitable for low-emission floors (ask your Spinder dealer for advice).

65.10.200	Scraper – 200 cm
65.10.250	Scraper 201 – 250 cm
65.10.300	Scraper 251 – 300 cm
65.10.350	Scraper 301 – 350 cm
65.10.400	Scraper 351 – 400 cm





Combi scraping system

In a building with solid concrete floors it is extremely important to keep the floors free of manure as much as possible. This can only be achieved by scraping a great number of times to keep the alleys clean to avoid slipping and sliding of the cows. In addition the fast removal of the manure prevents a large ammonia accumulation in the barn. The Spinder combi scraper is developed for solid concrete floors, with or without a rubber top layer. The scraper has a sturdy construction and is completely hot-dipped galvanized, it is build for intensive use. Each scraper is customized for type of floor and alley width.

Important advantages:

- The scraper has a sturdy construction and is completely hot-dipped galvanized;
- For each barn situation is a solution, even when the alleys are of a different length;
- Each scraper is customized for type of floor and alley width;
- The flaps under the scraper open automatically in the return action;
- The flaps take care of the cleaning alleys with an irregular width;
- Manure can be dumped in a pit or a grid channel;
- Drive unit can be located inside or outside a building;
- Trouble-free maintenance, grease nipples are easy accessible;

	Combiscraper for solid floor:
65.45.250	200 – 250 cm
65.45.300	251 – 300 cm
65.45.350	301 – 350 cm
65.45.400	351 – 400 cm

- 2 drive units, mounted on console, inside the building

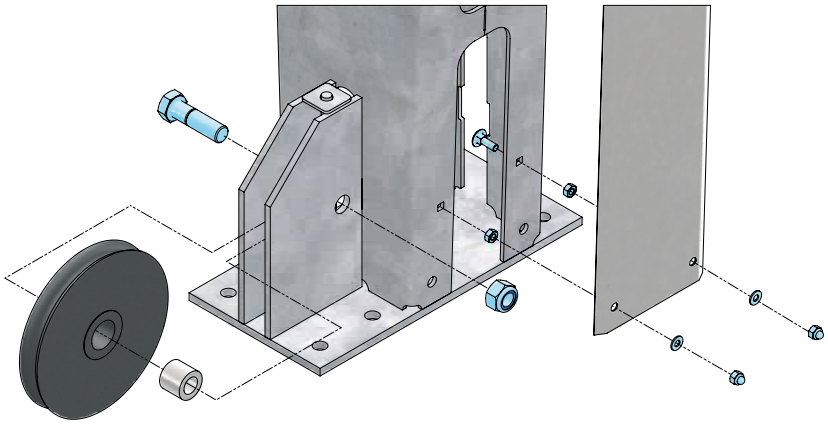
- Dump unit, located outside the building

Combi-scraper for slotted floors

The floor elements are fitted with slots running parallel to the feeding passage. The slots in the floor elements separate urine from manure, resulting in lower emission compared to traditional slatted floors.
Cleaning the slots is by way of the so-called tines on the scraper blade, with polyurethane synthetic material. The standard widths of the scrapers are between 200 and 400 cm. Alternative dimensions and construction of the combi-scraper are available upon request.

Important features:
- Heavy, welded scraper blades ensure a clean scraper result;
- Wear-resistant slides under the scraper made of manganese steel;
- Hinged side blades clean the stall edges and/or sides;
- Valves below the scraper open in a return movement;
- Valves easily disassembled for possible maintenance;
- Scraper drive with Spinder PE rope;
- Alternative dimension / construction is available upon request.

65.50.200	Combi-scraper slotted floors 200 cm
65.50.220	Combi-scraper slotted floors 220 cm
65.50.250	Combi-scraper slotted floors 250 cm
65.50.275	Combi-scraper slotted floors 275 cm
65.50.300	Combi-scraper slotted floors 300 cm
65.50.325	Combi-scraper slotted floors 325 cm
65.50.350	Combi-scraper slotted floors 350 cm
65.50.375	Combi-scraper slotted floors 375 cm
65.50.400	Combi-scraper slotted floors 400 cm



Maintenance

Manure removing equipment works every day, 7 days a week, 365 days a year.
The Spinder manure removing equipment is maintenance-free and has no grease nipples. The equipment is subject to wear and tear though. Some parts (bearing bushes, corner pulleys, ropes, strips) will need replacing at some point in time.

Sand as cubicle bedding has an abrasive effect; this has a negative influence on the service life of the installation.

Experience has shown that replacement of bearing bushes is sometimes delayed for too long, which may cause unnecessary faults. A service contract may prevent this from happening. Ask your dealer.

- Emergency stop strip, mounted on walkway

Safety

It often happens that manure is pushed below an obstacle. This may increase the risk of jamming. The manure scraper control measures the tractive force; the manure scraper turns off after exceeding the set limit.
It would still be advisable to install safety strips at obstacles. A safety strip turns the manure scraper off at the slightest touch.

	Safety strips at wall passages or walkways.
61.06.030	Emergency stop strip, 201 - 300 cm wide
61.06.031	Emergency stop strip, 301 - 400 cm wide
61.06.032	Emergency stop strip, 401 - 500 cm wide
61.06.035	Switch box for emergency strip (one for each manure removing system when placing one or more safety strips).

"Choose Spinder, choose
100% Dutch quality"

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DAIRY HOUSING CONCEPTS

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