



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



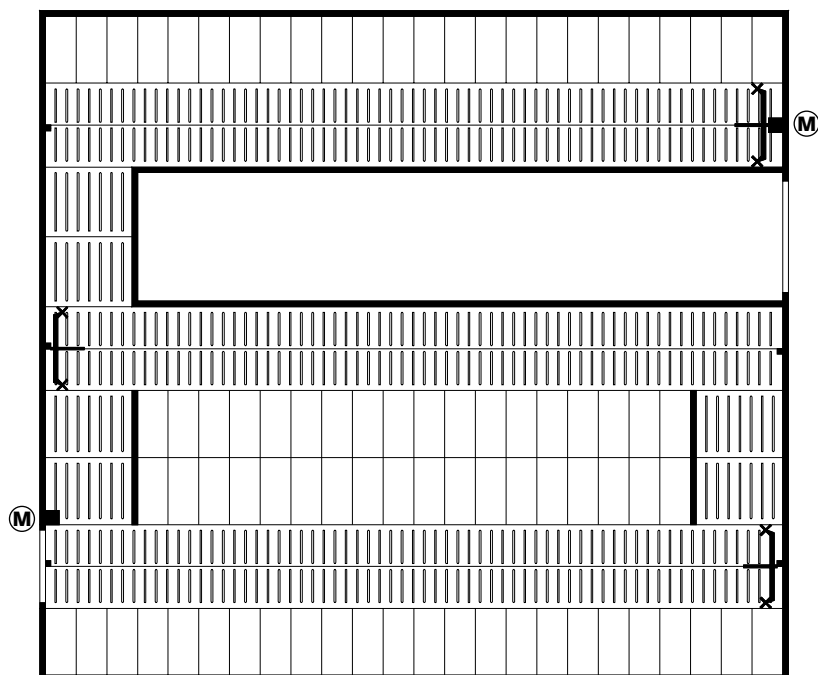
• 2 drive units, mounted on console, inside the building



• Dump unit, located outside the building



- 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.

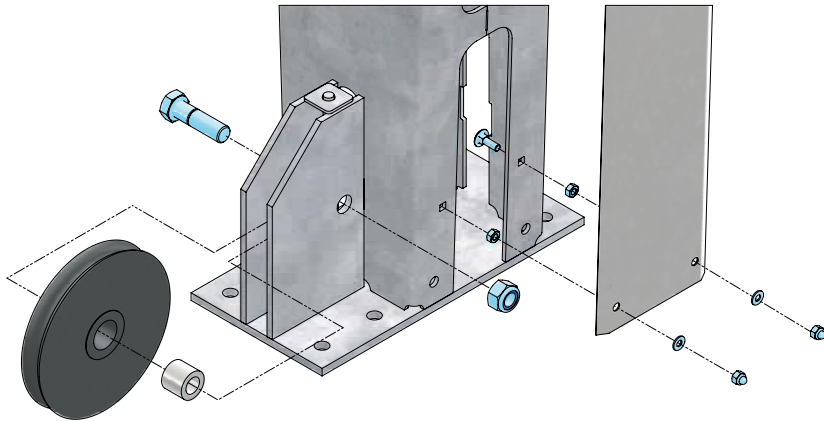
Important advantages:

- 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



- Emergency stop strip, mounted on walkway

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.

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).