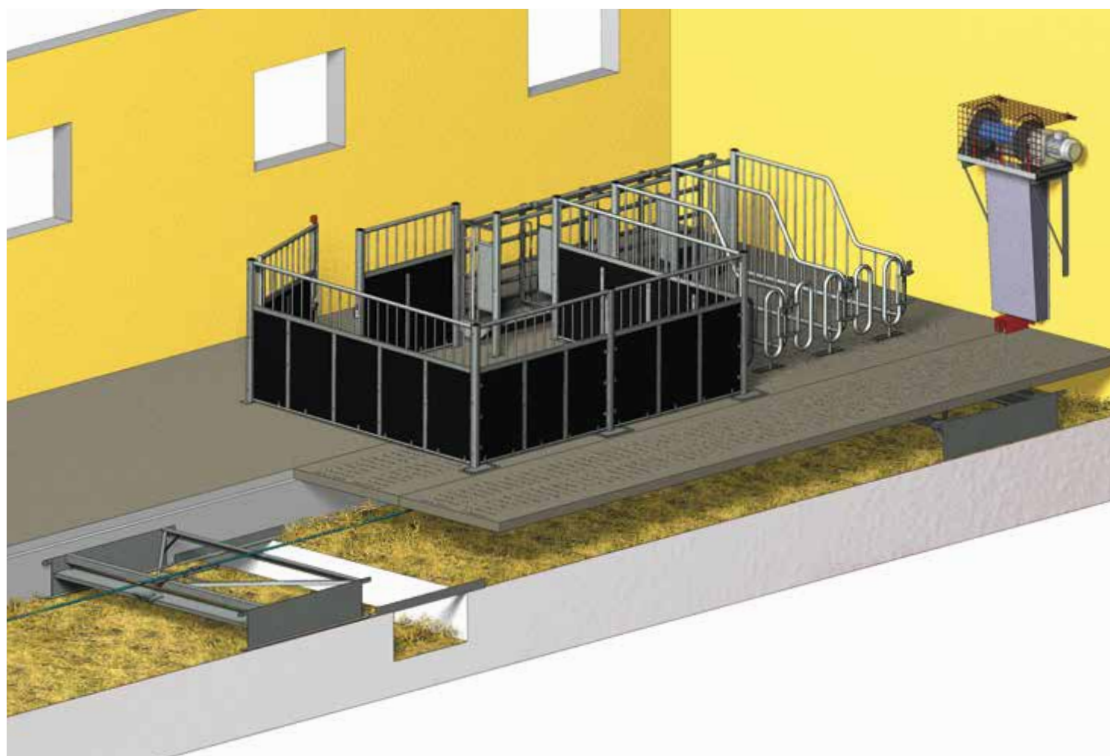


MOUNTING INSTRUCTION



WINCH SYSTEM



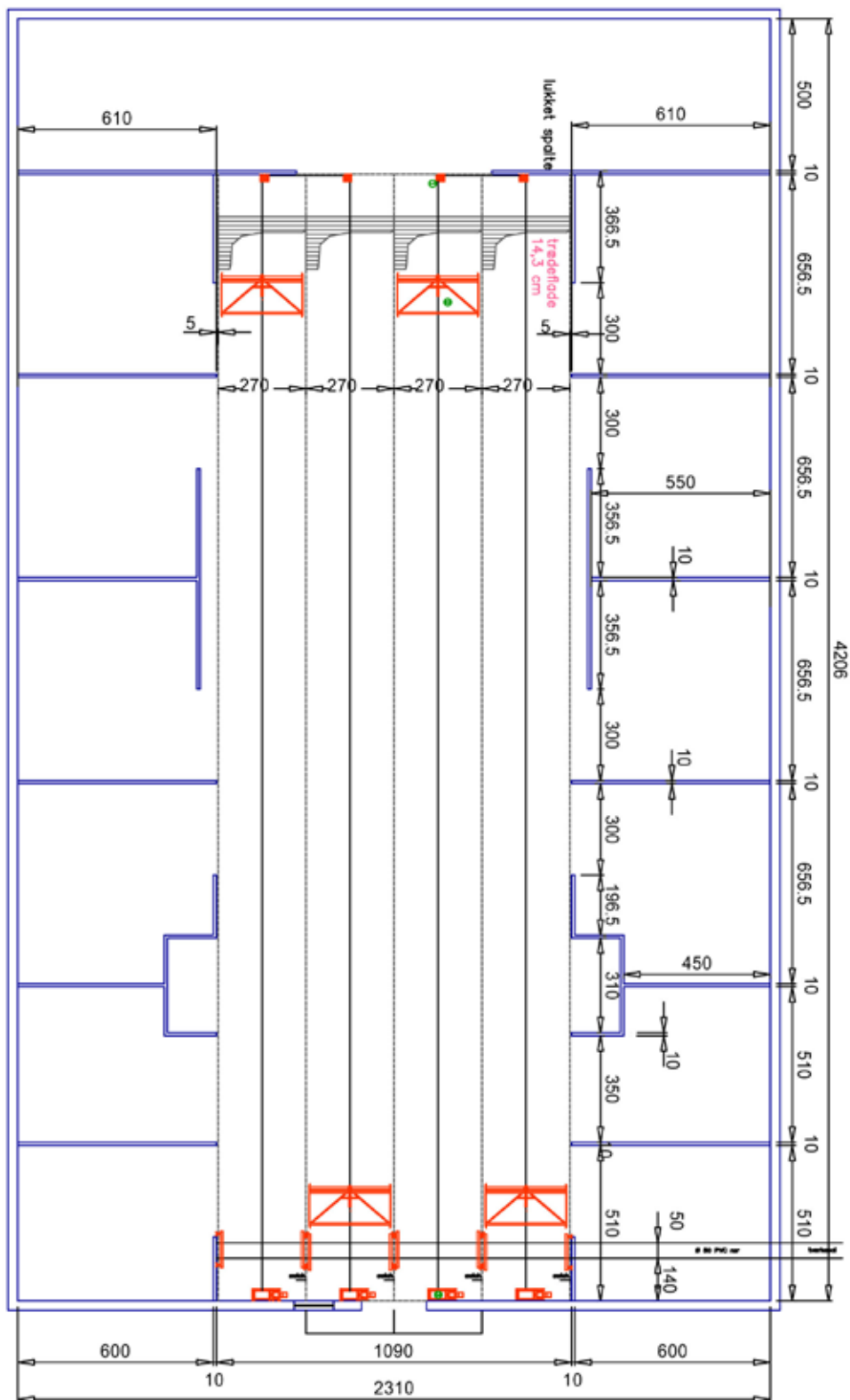
ACO FUNKI A/S
Kirkevænget 5
DK-7400 Herning

Tel. +45 9711 9600
www.acofunki.com
www.egebjerg.com

Winch system with 4 parallel channels and 4 drive units

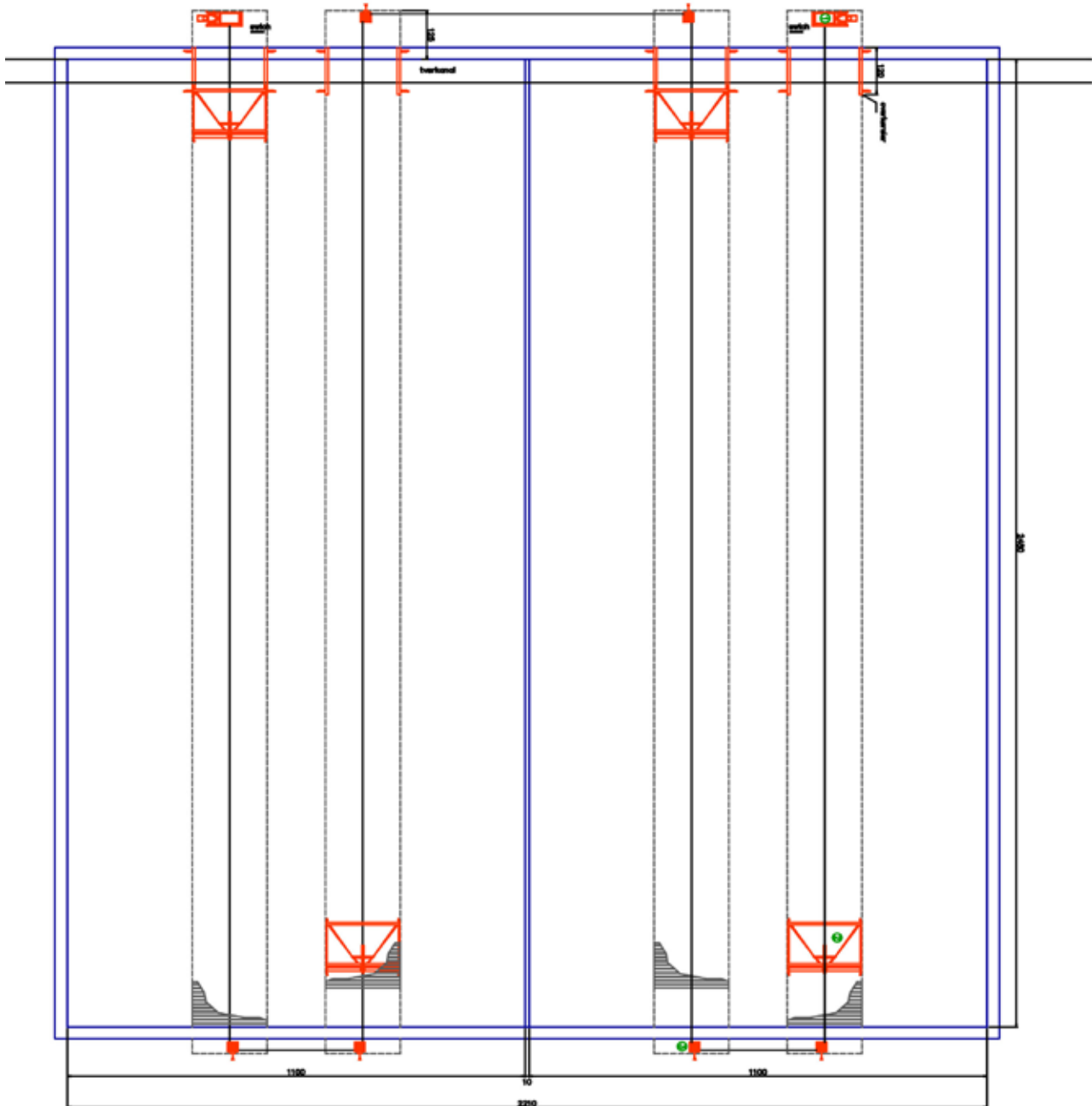
Drawing shows how winch system is placed in one pen.

If slots in channel are operated manually, there should be more attention at avoid load peak.



Winch system with 4 parallel channels and 2 drive units

The number of parallel channels depends on how long the channels are. The example shown with 4 x 25 metres is close to the maximum load. The pulley of the pulling station is the main limitation, as it can physically hold about 70 metres of rope/wire. The consistency of the fertiliser and the amount per cleaning also affect how far and how many buckets can be pulled per pulling station. Note that when there is more than one bucket per pulling station, there must be wire between buckets and not nylon rope.

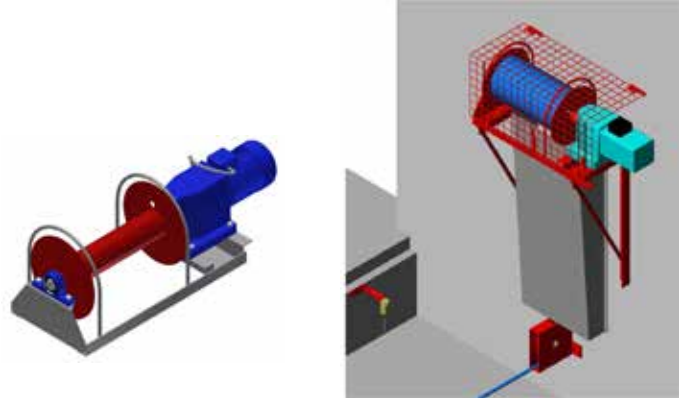


INFORMATION

- The system has low power consumption as it only runs for a few minutes at a time
- Fully automatic control with automatic stop function. Start and stop function is installed in all housing sections (required by law)
- Only one drag bucket per 25-30 metres of channel
- The nylon rope lasts at least 3-4 years. As the purchase price is very low, maintenance costs are minimal
- Few moving parts. This means minimal wear and tear, no annoying downtime and no expensive repairs

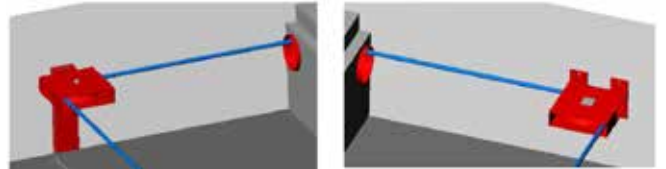
DRIVE UNIT

2 pcs. drive units that automatically switch control current, manages the extraction in up to 4 parallel channels.
2 HP gear motor 380 V.



CORNER WHEELS

Mounted on opposite side of drive unit and connects 2 or more parallel manure channels by 6" plastic pipe.



SCRAPER

An extremely simple drag bucket with few moving parts. The tailgate opens when reversing and drops down when purging.
Self-guiding in the channel without moulding iron. Ducts are moulded to current tolerances $\pm 2-3$ cm, and we supply buckets for all channel widths. For more than 1 bucket per channel or more than 2 channels ducts, the connection between the buckets must be in 14 mm steel wire rope and the connection between the and bucket in rope.



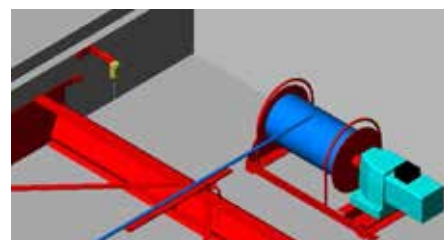
CONTROL PANEL

Automized control system with automatical stop function. Start and stop function is mounted in every pen section. Automatic time controller is delivered seperately.



SWITCH

Switch next to the every drive unit gives signal to the controlling system to switch control power in drive unit, so scrapers can drive backwards.

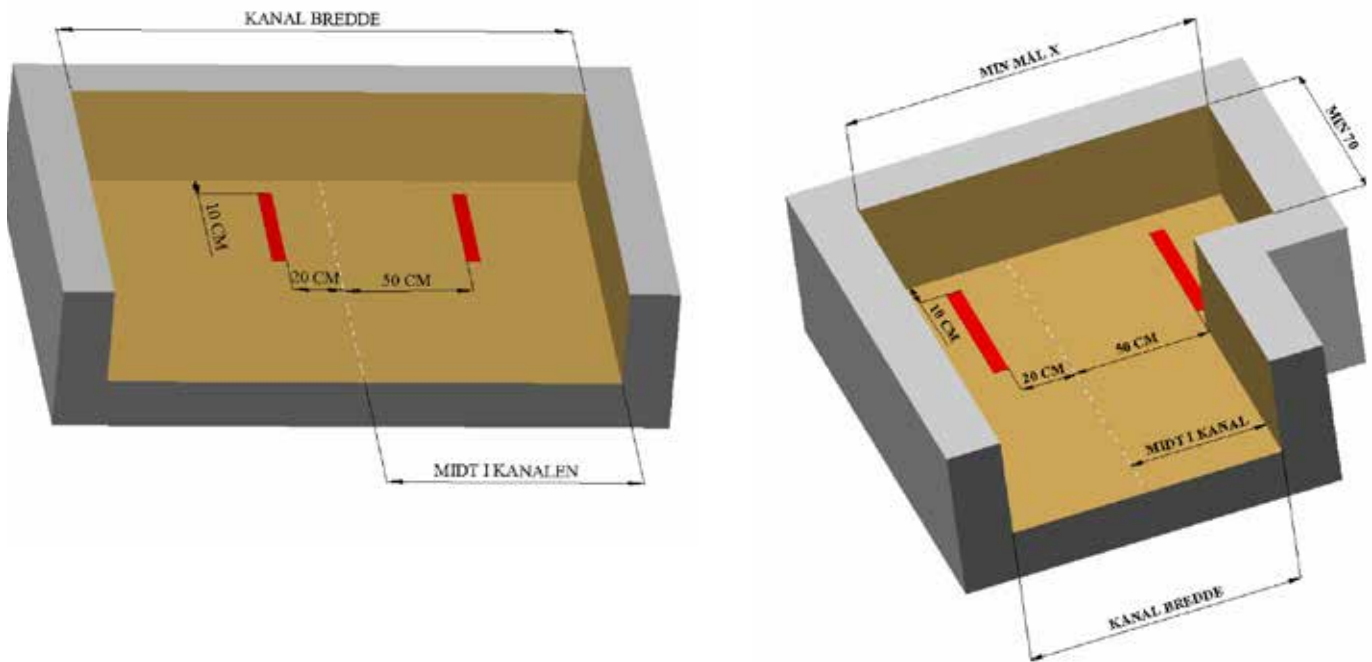


CHANNELS

Channel standart high is 40 or 50 cm. Scrapers has standart high of 35 cm. Channels width is variable. Crossing channels width should be approx. 50 - 80 cm. Overpasses come in lengths of 150 cm and can be cast or screwed in place. Concrete channel bottom, strength 25 MN/m² (1:2:3)

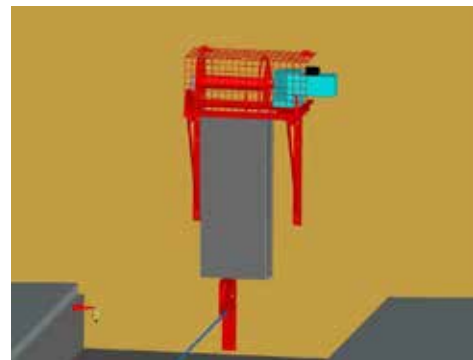
DRIVE UNIT

Pit for drive unit cannot be molded. It should be covered with solid slat, tread plate or similar.



If channel is less then 90 cm,
pit for drive unit should be at least 125 cm width.

If channel is more then 160 cm,
pit for drive unit should be the same dimension as channel.

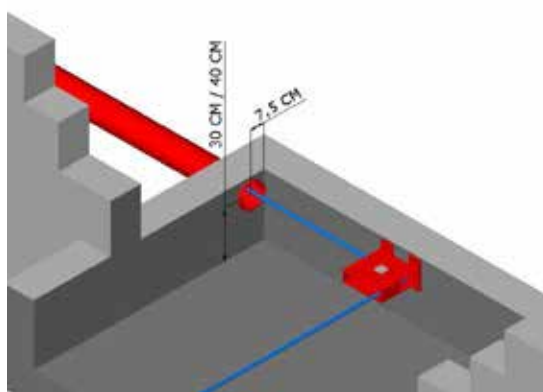


CORNER WHEELS

Mounted on opposite side of drive unit and connects 2 or more parallel manure channels. Installed 6" plastic pipe between channels helps to A 6" plastic pipe is molded in between the channels to carry the rope. The pipe is cast in so that the center sits 9 cm from the rear wall and 30 - 40 cm from the channel bottom (bucket height). Return stroke: 120 cm from the roll and into the first path or drop-off point. Corner rollers must not be overmolded, but covered with a fixed slot or a limb on mine. 60 x 60 cm.

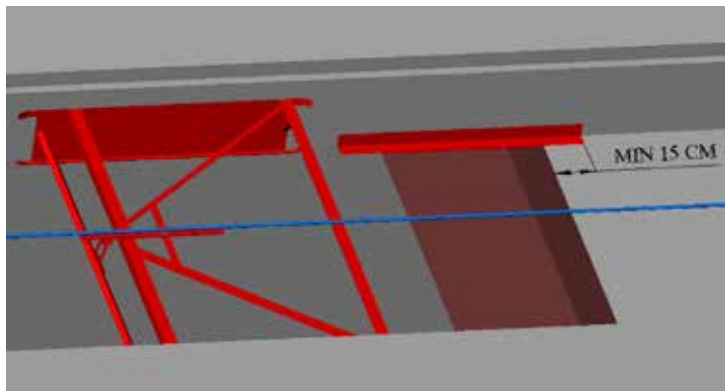
CORNER ROLLERS WITHOUT CAST IRON INSIDE THE BUILDING

The rollers are bolted to the concrete with concrete anchors. The center of the roll should be 10 cm offset from the center the channel towards the plastic pipe and 30-40 cm above the channel bottom (bucket height).



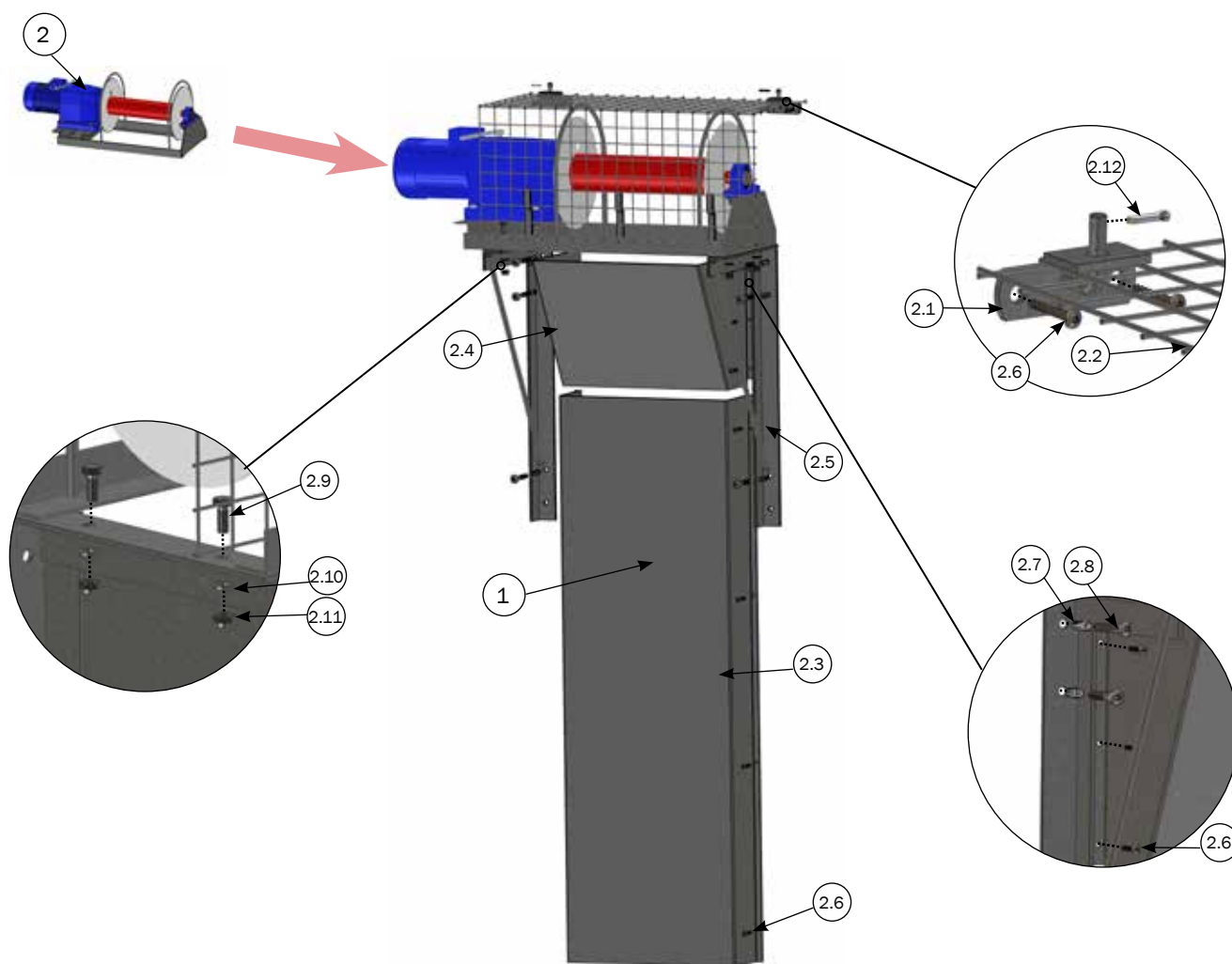
CROSSINGS AT CROSSROADS

The 150 cm angle irons are cast so that they run smoothly with the bottom. The remuneration must be min. be 15 cm on both sides / if not the 15 cm allowance, it must be screwed to the side.

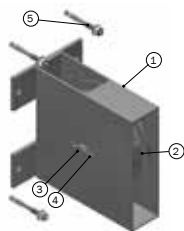


DRAINAGE FROM DUCTS

Drains from the canals are not required. On the other hand, all channels must be cast with a slope mine. 1 ‰ down towards the delivery point.

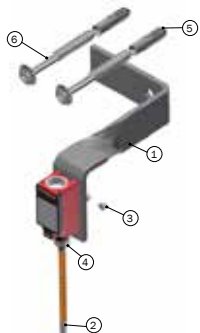


No	QTY.	Part No	Description
1	1	80001	DRIVE UNIT WINCH SYSTEM 2 HK
2	1	80005	WALL MOUNTING KIT FOR DRIVEUNIT, WINCH SYSTEM
2.1	2	4720055	HANGER FOR SAFETY NET
2.2	1	80050	SAFETY NET DRIVEUNIT FOR WINCH SYSTEM
2.3	1	80067	LOWER COVER DRIVEUNIT FOR WINCH SYSTEM
2.4	1	80065	UPPER COVER DRIVEUNIT FOR WINCH SYSTEM
2.5	2	80011	SUPPORT BRACKET FOR DRIVEUNIT
2.6	18	39406050	CONCRETE SCREW 6,5 X 50 STAINLESS STEEL
2.7	6	39900001	WALL PLUG 12X60 MM
2.8	6	67444	10 X 70 BUTTONHEAD TORX 50 STAINLESS STEEL
2.9	4	30312030	SET SCREW M12X30 A2 DIN 933
2.10	4	35600080	FLAT WASHER Ø13X24X2.5 MM A2 DIN 125A
2.11	4	33912000	LOCK NUT M12 A2 DIN 985 WAXED
2.12	2	35900095	SPLIT PINS 4X40 MM A2 DIN 94



80201 CORNER FOR WINCH SYSTEM

Nº	QTY.	Part Nº	Description
1	1	80208	HOUSE FOR INNER WHEEL, WINCH SYSTEM
2	1	1910513	INNER WHEEL WITH BUSHING FOR WINCH SYSTEM
3	1	80207	BOLT 25 MM M/SPLIT LINESPILSANLÆG
4	1	68910	5 X 50 PIN GALV.
5	4	30910095	EXPANSION BOLT M10X95

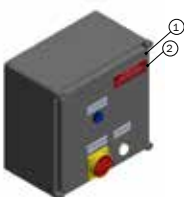


80750 MICROSWITCH 90GR. INCL BRACKET FOR WINCH SYSTEM

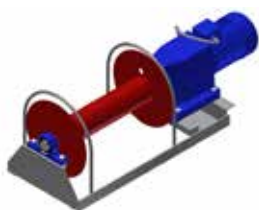
Nº	QTY.	Part Nº	Description
1	1	80757	MOUNTING BRACKET MICROSWITCH
2	1	80752	MICROSWITCH 90 GR. IN65-SU1-AF WINCH SYSTEM
3	2	33905000	LOCK NUT M5 A2 DIN 985
4	2	67109	HEXAGON SOCKET SCREW M5X30 A2 DIN 912
5	2	39900001	WALL PLUG 12X60 MM
6	2	67444	10 X 70 BUTTONHEAD TORX 50 STAINLESS STEEL



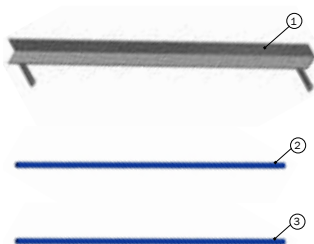
Nº	QTY.	Part Nº	Description
1	1	71280720	START AND STOP FOR 1 SYSTEM
2	1	71280730	START AND STOP FOR 2 SYSTEM



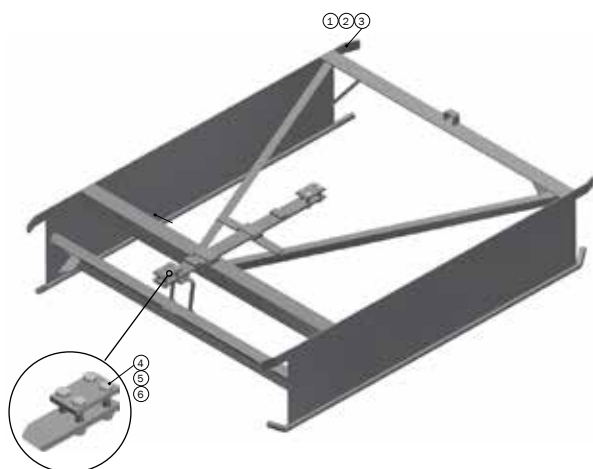
Nº	QTY.	Part Nº	Description
1	1	71280700	CONTROL UNIT FOR 2 SYSTEM
2	1	71280710	CONTROL UNIT FOR 1 SYSTEM



Nº	QTY.	Part Nº	Description
1	1	80001	DRIVE UNIT WINCH SYSTEM 2 HK



Nº	QTY.	Part Nº	Description
1	1	80251	CROSSING RAIL 150 CM
2	1	80605	ROBE 18 MM. 220 M / SCRAPER SYSTEM, BREAKING STRENGTH 4720 KG
3	1	80614	TAIFUN WIRE 14 MM / SCRAPER SYSTEM IN METER



4700301 SHOVEL 100-150 CM FOR WINCH SYSTEM

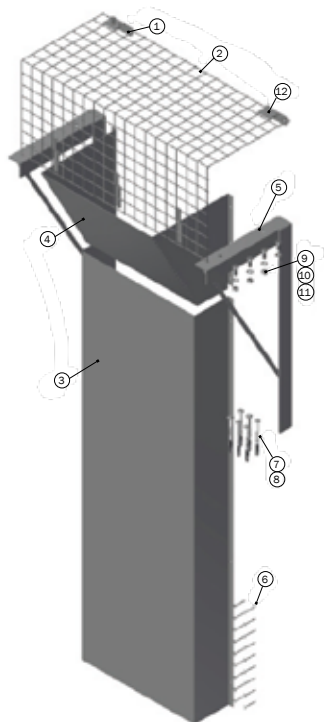
N ^o	QTY.	Part N ^o	Description
1	1	4720301	SHOVEL 100-150 CM
4	2	80342	FLAT BAR MOUNTING ROPE LINE WINCH SYSTEM
5	8	30301045	SET SCREW M10X45 A2 DIN 933
6	8	33900029	LOCK NUT M10 A2 DIN 985

4700311 SHOVEL 150-200 CM FOR WINCH SYSTEM

N ^o	QTY.	Part N ^o	Description
2	1	4720311	SHOVEL 150-200 CM
4	2	80342	FLAT BAR MOUNTING ROPE LINE WINCH SYSTEM
5	8	30301045	SET SCREW M10X45 A2 DIN 933
6	8	33900029	LOCK NUT M10 A2 DIN 985

4700321 SHOVEL 200-250 CM FOR WINCH SYSTEM

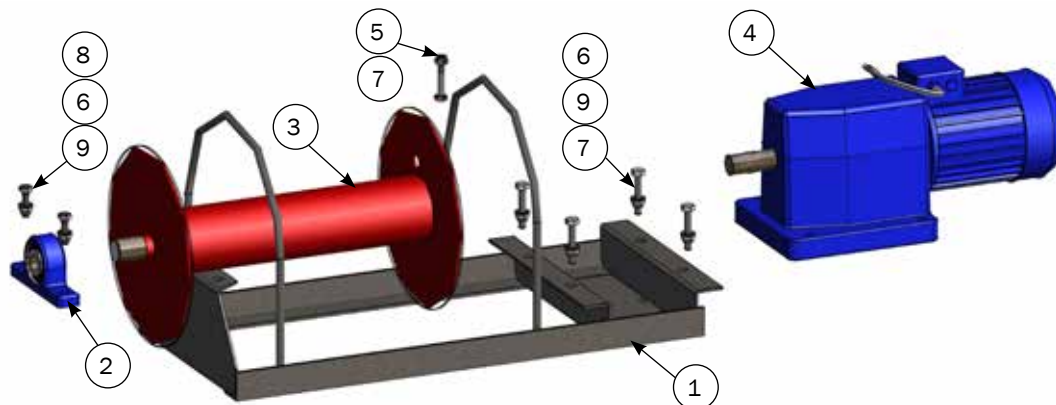
N ^o	QTY.	Part N ^o	Description
3	1	4720321	SHOVEL 200-250 CM
4	2	80342	FLADJERN MONTAGE TOV LINESPILSANLÆG
5	8	30301045	SET SCREW M10X45 A2 DIN 933
6	8	33900029	LOCK NUT M10 A2 DIN 985 WAXED



80005 WALL MOUNTING KIT FOR DRIVEUNIT, WINCH SYSTEM

N ^o	QTY.	Part N ^o	Description
1	2	4720055	HANGER FOR SAFETY NET
2	1	80050	SAFETY NET DRIVEUNIT FOR WINCH SYSTEM
3	1	80067	LOWER COVER DRIVEUNIT FOR WINCH SYSTEM
4	1	80065	UPPER COVER DRIVEUNIT FOR WINCH SYSTEM
5	2	80011	SUPPORT BRACKET FOR DRIVEUNIT
6	18	39406050	CONCRETE SCREW 6,5 X 50 STAINLESS STEEL
7	6	39900001	WALL PLUG 12X60 MM
8	6	67444	10 X 70 BUTTONHEAD TORX 50 STAINLESS STEEL
9	4	30312030	SET SCREW M12X30 A2 DIN 933
10	4	356000890	FLAT WASHER Ø13X24X2.5 MM A2 DIN 125A
11	4	33912000	LOCK NUT M12 A2 DIN 985
12	2	35900095	SPLIT 4X40 A2 DIN 94

SPARE PART LIST FOR WINCH DRIVE UNIT



Nº	QTY.	Part Nº	Description
1	1	80003	STAND FOR DRIVE UNIT TO WINCHSYSTEM
2	1	80661	BALL BEARING 40 MM FOR DRUM WINCH SYSTEM
3	1	80655	DRUM UNIT WITHOUT BEARING FOR WINCH SYSTEM
4	1	80652	GEARMOTOR 2 HK WINCH SYSTEM
5	1	32312070	MACHINE BOLT M12X70 A2 DIN 931
6	7	33912000	LOCK NUT M12 A2 DIN 985 WAXED
7	4	30312070	SET SCREW M12X70 A2 DIN 933
8	2	30312045	SET SCREW M12X45 A2 DIN 933
9	6	35600080	FLAT WASHER Ø13X24X2.5 MM A2 DIN 125A