

Product List





Hotraco Agri price
list 2025 (V).pdf

Company Profile

Improving animal performance and optimising your business operations is much easier with the complete automation solutions from Hotraco Agri. Our core business is the regulation, control and monitoring of animal housing processes for the livestock farming sectors. From ventilation and climate control, feed and water control, animal weighing, lighting and egg counting to farm management.

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Contents

<u>Delivery conditions</u>	6
Prices	6
Commissioning	6
Payment	6
Letter of credit	6
Ordering	7
Delivery	7
End of Life (EOL)	7
Metaalunie terms and conditions	7
Warranty	7
Handling	8
Restitution	8
Shipping damage	8
Service	8
1. <u>PROCESSCOMPUTERS</u>	9
Poultry computers	9
Feed and silo weighing	9
Egg counting computers	9
Climate computers	9
Communication and management	10
2. <u>SENSORS AND LOADCELLS</u>	12
Sensors	12
Animal weighing	14
Feed and silo weighing	14
Egg counters	17
Water counter and water valves	18
3. <u>SLAVE UNITS AND RELAY BOXES</u>	19
Slave units	19
Danfoss frequency controllers	21
Ziehl-Abegg frequency controllers	21
Invertek frequency controllers	22
Hand zero auto switch for frequency controller	23
4. <u>FLAP AND CURTAIN CONTROL</u>	24
MultiWinch motor and accessories	24
Ridder hoist motors and accessories	25
Accessories Ridder motors	26
Belimo motors	27
5. <u>ALARM</u>	28
Alarm computers	28
Telephone dialers	28
6. <u>THERMOSTATS AND HEATING</u>	29
Ermaf heaters	29
Munters/Reventa heaters	29
7. <u>FANS AND ACCESSORIES</u>	30
Multifan fans	30
Munters fans	34

8. <u>FAN CHIMNEYS AND ACCESSORIES</u>	35
Scan-air chimneys and accessories	35
Reventa chimneys and accessories	41
Tulderhof Air Equalizer	47
9. <u>AIR INLET SYSTEMS</u>	48
Tulderhof inlet valves	48
TPI inlet valves	50
Tulderhof pop-hole doors	51
Accessories	52
10. <u>LIGHTING</u>	54
11. <u>COOLING</u>	56
Pad cooling Munters	56
Spray cooling	56
12. <u>END OF LIFE 2023 AND ACCESSORIES</u>	57
13. <u>SPARE PARTS CURRENT PRODUCTS</u>	59
14. <u>SPARE PARTS FOR NON-CURRENT PRODUCTS</u>	62

RMA CONDITIONS

HOTRAC TERMS AND CONDITIONS

Delivery Conditions

Prices

All mentioned prices are excluding VAT and based on Incoterm: EXW. This price list is valid from 01-01-2024 until 31-12-2024. Prices are subject to changes. Any (price) modification supersedes the previous one. Hotraco Agri cannot be held responsible for printing errors in this price list. Furthermore, all prices exclude installation plans, wiring plans, installation, and commissioning.

Commissioning

If the presence of one of our technicians is required for commissioning, you can call our service department (+31 77 3275020) for an appointment. Before our technician starts, all necessary equipment should be assembled and connected according to our wiring diagrams. Additionally, we require your installer to be present. For this technical support, we will charge you according to the current service fees. We cannot be held liable for incorrectly assembled or connected equipment by third parties.

Payment

Unless otherwise agreed, our invoices are due within 30 days after the invoice date. The payment terms are mentioned on the invoices.

Ordering

We prefer to receive your appreciated orders by email at sales@hotraco-agri.com. Please mention:

- Part number and product name
- Quotation reference
- Quantity
- Project number and project name
- Desired delivery time
- If necessary, motor amperage for motor protection

An intended project will not be executed until all necessary information is available and all agreed and specific requirements have been met. Subsequently, this will be confirmed by us in an order confirmation sent to you. This order confirmation will be binding. All orders handed to us should be in writing. The customer agrees with our delivery conditions during the entire course of the business relationship.

Delivery

All our deliveries are subject to the Incoterms 2020 (ICC) and EXW 5961 ND Horst. All deliveries made by Hotraco Agri will be charged to you accordingly. Additionally, the delivery charges for customer-specific purchases will also be charged to your account.

End of Life (EOL)

End of Life means that the mentioned item will no longer be manufactured. This involves the complete product but could also involve its spare parts after a certain period of time. The End of Life (EOL) concept implies the following:

After the mentioned date (e.g., EOL 2024 means the latest end of 2024), the item will no longer be manufactured. In case we still have this item available ex-stock after the EOL has been reached, we can supply it until our stock runs out.

When a complete product has reached its EOL, the matching spare parts will still be available during the established period until they also have reached their EOL.

In case we have an equivalent product available, we might decide to shorten the period during which the complete EOL product and/or its spare parts will be manufactured and available.

The normal warranty period will also be applicable to these items.

General Terms and Conditions of Hotraco

All our quotations, all orders placed with us, and all contracts concluded with us are subject to the General Terms and Conditions of Hotraco, filed with the registrar of the District Court of Rotterdam, as stipulated in the latest text lodged with the said court. You can find these General Terms and Conditions of Hotraco in the appendix of this price list.

Warranty

Our warranty period deviates from the warranty period mentioned in the Metaalunie terms and conditions (6 months warranty) being 1 year after delivery by Hotraco Agri and is applicable to all our devices (the dispatch date is leading). However, warranty is never applicable when the cause of the defect is due to external influences such as an unreliable power supply, improper use, weather conditions, wrong storage, or mounting and installation faults. If warranty is claimed for defective devices, we need you to send these to Hotraco Agri postage prepaid. Replacement products sent by us in advance will be charged to you as usual. After the defective device has been checked by us, we will decide if warranty is applicable. If the product can be repaired sensibly, it will be returned to you*.

*The customer is only entitled to a free replacement if repair is not possible or not worthwhile and provided that warranty is applicable. A product that has been replaced and turns out to be unrepairable will become the property of Hotraco Agri. If the warranty period has expired and the product can be repaired, we will charge you for the repair costs.

When a defect is discovered, we urge you to notify us in writing. If a defect is not reported, we are discharged from all obligations. The defective products need to be complete and sent to us immediately, accompanied by an RMA form and postage prepaid.

Warranty is not applicable in case of:

Normal wear, improper use, lack of maintenance or incorrect maintenance, and modifications to or repair of the devices by the customer or third parties.

Handling

For items sent for repair which are found to be not defective and working, we will charge handling costs of € 63,50 for each single product. If a repair is found not worthwhile or if the item is not repairable, provided that a new replacement item is ordered, we will NOT charge you for research costs.

Items that are unreliable, not worthwhile repairing, or not repairable will be disposed of at Hotraco Agri.

Please also take note of our RMA conditions in this price list.

Restitution

The customer is not entitled to a refund for goods delivered by Hotraco Agri. Only in very specific cases is a refund possible and only when the material is in its original state, meaning: properly packed (original packaging), unopened, unused, and undamaged. Moreover, our explicit consent in writing is required. If we agree to retake the goods, the customer is obliged to pay at least 15% of the invoiced amount as compensation. The goods need to be sent postage prepaid and accompanied by our RMA form. The goods will not be taken back unless all these requirements are met. Tailor-made items and customer-specific purchased items are excluded from refunds.

Shipping Damage

Damage to the shipment should be reported within 24 hours after unloading/arrival, but at the latest within 14 days. To qualify for compensation, the damage should be reported on the receipt with the name of the person who detected the damage, and there need to be photographs of the damage.

Service

Our service engineers are available 24/7 on telephone number +31 77 3275020.

Our service fees are:

Traveling expenses ex-works Horst and return: € 0,75 per km

Installation/commissioning expenses including travel time and return: € 90,00 per hour

For a full day of service, we charge € 900,-

For service outside office hours, our fees are charged at 150%. The charge on Sundays and holidays between 00.00 and 6.00 hours is 200%. Office hours: Monday to Friday 8.00 – 16.30 hours.







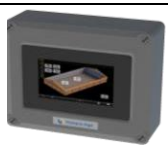

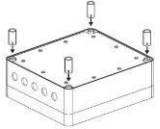
Hotraco Academy

We are happy to share our knowledge with our partners. We do this through training courses at our Hotraco Academy. We provide training to dealers, installers, service technicians, and barn fitters so they can achieve optimum results with our systems. The cost to participate in our Hotraco Academy is:

€ 1200,- for a full day

€ 600,- for half a day

1. PROCESSCOMPUTERS

				Discount group	
Poultry computers					
	HO05100540	FORTICA-PF	Poultry computer without climat control		1
	HO05100200	FORTICA-PB	Poultry computer for floor keeping		1
	HO05100500	FORTICA-PP	Poultry computer for breeders		1
	HO05100300	FORTICA-PS	Poultry computer for free-range and aviary keeping		1
	HO09032055	FLOCK-CHART	Software Expansion of functionality for FORTICA-P and Antares-P with the flock chart		1
	HO09032056	FORTICA-HEATX	Software Expansion of functionality for Fortica-P with three extra heat exchangers. From Fortica version 2.0.		1
	HO09032057	ENERGY-SAVE	Software Expansion of functionality for FORTICA-P and Antares-P with energy management ventilation		1
	HO09032058	FORTICA-EGGFB	Extension software module egg collection for Fortica-PS or Fortica-PP per house		1
	HO05120100	ANTARES-CL	Climate computer		1
	HO05120200	ANTARES-PB	Poultry computer Broiler		1
Feed & silo weighing					
	HO05101000	FORTICA-FWS	Slave feeding computer for FWS and/or SWS.		1
	HO05120600	ANTARES-SAW	Silo and animal weighing computer		1
Egg counting computers					
	HO05101505	FORTICA-CECIS	Computer for Central Egg Collection panel built-in internal Small without IO board		1
	HO05101515	FORTICA-CECIM	Computer for Central Egg Collection panel built-in internal medium without IO board		1
	HO05101525	FORTICA-CECIL	Computer for Central Egg Collection panel built-in internal large without IO board		1
	HO09032058	FORTICA-EGGFB	Extension software module egg collection for Fortica-PS or Fortica-PP per house		1
	HO09032059	FORTICA-CECST	Software module central egg collection total number of houses		1
	HO05121500	ANTARES-EGG	Egg count computer 1 houses		1
<i>N.B.! If Fortica/Antares needs to be mounted in a switch panel, then the last digit of the article number changes to a 5 for panel build by Hotraco and to a 7 for panel build by an external party.</i>					
Climate controllers					
	HO14000830	STR	Climate controller 0-10V incl. display and PTC		1
	HO51150000	EASY-FIX	Set of mounting spacers Hotraco cabinets		3

Communication and management
Communication and management FORTICA and ANTARES

Discount group

	HO09032100	FORTUS-FARM	Management program on USB-stick for FORTICA-P or ANTARES		1
	HO11991850	SYSL-REMOTE	Module SyslinQ Remote, remote control for Fortica		1
	HO11999002	SYSL-NOTI-MOD	Fortica, FortLink, Croptimiz'r en Antares remote notification software module		1
	HO09110201	IH-FD-FOR-P	iHotraco Farm Data Fortica-PB/PP/PS subscription per year per Fortica		8
	HO11992220	PORTUS	Gateway for iHotraco management and remote		1
	HO11992230	PORTUS-S	Gateway for iHotraco management, remote + connectivity.		1
	HO11991870	SYSLINQ	Connectivity interface for management and remote control incl. Power supply board. (Without FORTUS-FARM and SYSL-REMOTE)		1
	HO11991877	SYSLINQ-PE	Connectivity interface for management and remote control build in panel external (excl. Power supply, FORTUS-FARM and SYSL-REMOTE)		1
	HO11992000	SYSLINQ-4G-G	Wireless 4G-G connectivity interface for management and remote control stand alone incl. external antenna, 2m cable Suitable for worldwide application		1

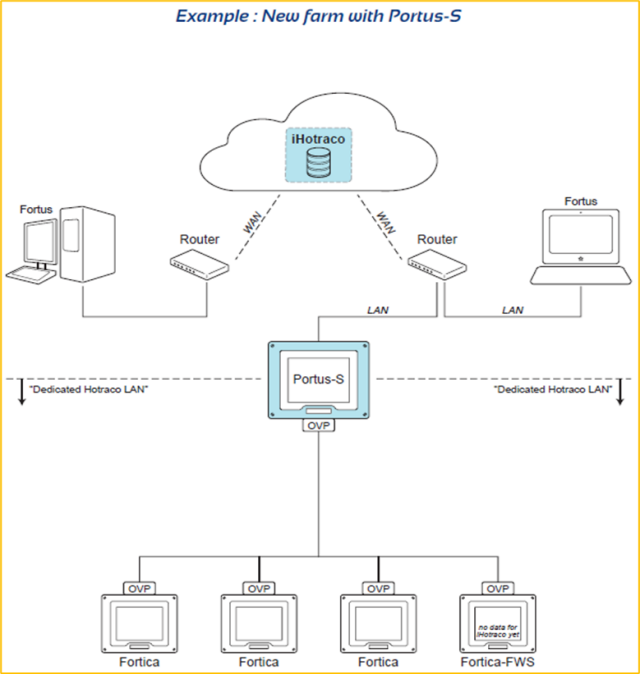
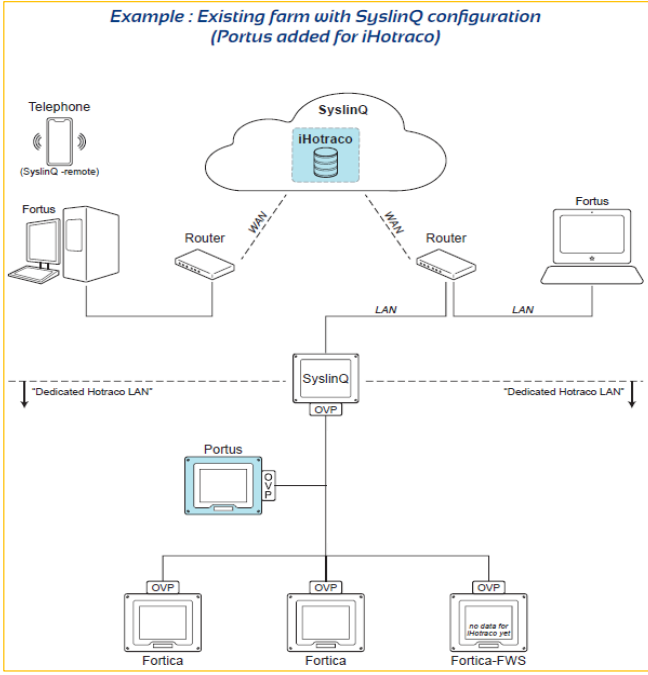
FORTICA

	HO05100957	ETHER-OVP	Overvoltage protection board for Fortica to Ethernet		1
	HO05100960	ETHER-OVP-SET	Overvoltage protection kit for Fortica to Ethernet including 2x UTP patch cable 30cm		1















ANTARES





	HO05100927	ETH-OVP-S-SET	Overvoltage protection and switch board for Antares to Ethernet		1
	HO05100920	ETH-OVP-S-SET	Overvoltage protection set and switch to Ethernet, incl. UTP patch cable 50cm and 24VDC power cable		1

	HI54001163	CONN-RJ45	4 pins male RJ-45 connector		3
	HO50010630	ETHER-BK	Ethernet cable 2x2x0,64mm for communication Fortica, Antares and Croptimiz'r		3
	HO50010640	CAN-BK	CAN-bus cable for communication		3









2. SENSORS AND LOADCELLS

FORTICA, ANTARES, THOMAS, ORION				Discount group	
	HO07001005	PT1000	Temperature sensor for FORTICA, ORION, MIRA, ANTARES and THOMAS		3
	HO07001105	PT1000-6	Temperature sensor with 6 meter cable		3
	HO07001300	PT1000-BU	Outside temperature sensor for FORTICA, ORION, MIRA, THOMAS		3
	HO07001400	PT1000-W	Water temperature sensor		3
	HO07010600	RV-A-0-5	Analog humidity sensor 0-5V		3
SparePart 	HO07010470	RV-CONNEC-4P	Connector 4p female and female cap		3
	HO07080310	OPN-CO2-E2	CO2-sensor 0-5000 ppm 4-20mA + plug + protective cap + mounting plate		3
SparePart 	HI35600033	CO2-E-CONN-4P	Connector 4 pin M12 female for OPN-CO2-E2		3
SparePart 	HO07080320	CO2-E2-DOP	Screw cap OPN-CO2-E2 sensor cable		6
	HO07020200	OPN-DR-ST-I	Negative pressure sensor 0...100Pa / -100...+100PA + tube set 4-20mA for Fortica and Orion.		3
	HO07020100	OPN-DR-ST-SET	Connection pressure sensor incl. Dampers 2-fold for two hose end		3
	HO07091000	OPN-DOL53-NH3	Ammonia sensor NH3 0-50/100 ppm 0-10V		3
SparePart 	HO07990100	WDS-4P	Socket + plug 4 pins (male + female + cap)		6
SparePart 	HO07091010	DOL53-NH3-RES	Replacement sensor ammonia DOL53 NH3 0-100 ppm 0-10V		6

	HO07060250	OPN-WRS-K	Weather station (speed + direction)		3
	HO07060640	OPN-LS-50LUX	Light sensor 0-50Lux 0-20mA		3
	HI75180003	TO-OPB	Rev-counter for montage external		3
	HO07060710	FOTOCEL-24VDC	Photocell 24Vdc to control eggs till packer incl. Reflector and mounting bracket.		3

Peripheral animal weighing

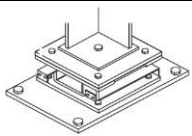

	HO10000251	DWS-3-ZW	Bird weighing scale 1x1m (max. 100 Kg) without amplifier		3
	HO10000171	DWS-4-ZW	Bird weighing scale 0,4x0,4m (max. 35 Kg) without amplifier		3
	HO10000181	DWS-5-ZW	Bird weighing perch (max. 15 Kg) without amplifier		3
	HO10000191	DWS-6-ZW	Bird weighing plateau (max. 15 Kg) without amplifier		3
	HO42501625	KK-7P	Connector box for DWS		3
	HI35600011	CON-7P-M	Plug 7p male for bird weighing scale		3

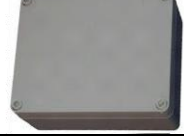



Peripheral electronic feed weighing

	HO10010350	FWS-4N	Electronic feed weigher 45 Kg/batch		3
	HO10010410	OS-FWS-U	Console for FWS feed weighers		3
	HO10090100	TRECH-FWS	Funnel for FWS Feedweigher, max. 3 augers		3
	HO10090210	OPV-FWS-U	Feedcontainer under FWS Feedweigher unassembled		3
	HO10090220	OPV-FWS-W	Wedge shaped 15° Feedcontainer FWS Feedweigher unassembled		3
	HO98003440	ISO-FWS	Rubber isolation between FWS-4N feedweigher and feed		3
	HO52074060	NS-24-230-TA	Sensor 24 - 230V AC/DC, with delay and sensitivity adjustment		3
	HO51093001	M40-WARTELSET	Swivel + nut M40 for NS-sensors		3




Peripheral silo weighing

	HO53900320	SB1-K5C	Loadcell 500 kg. rectangular model		3
	HO53900330	SB1-K1M	Loadcell 1000 kg. rectangular model		3
	HO53900340	SB1-K2M	Loadcell 2000 kg. rectangular model		3
	HO53900440	MS-P	Mechanical support for loadcell 100 till 2000 Kg		3
	HO53900350	SB1-K5M	Loadcell 5000 kg. rectangular model		3
	HO53900360	SB1-K7M5	Loadcell 7500 kg. rectangular model		3
	HO53900365	SB1-K10M-N	Load cell 10.000 kg rectangular model		3
	HO53900455	MS-G-CT	Mechanical support for loadcell 5000, 7500 and 10000 Kg		3
	HO51010500	ANKERB-16X148	Anchor bolt 16x148mm Fisher FAZII+16/25EV Only suitable for MS-G-CT		3
	HO53900370	CM1-K10M	Loadcell 10000 Kg. round model		3
	HO53900520	SMP-G-CM	Mechanical console for loadcell 10000 Kg with ground plate 295x150mm		3
	HO53900372	CM1-K15M	Loadcell 15000 Kg. round model		3
	HO53900373	CM1-K20M	Loadcell 20000 Kg. round model		3
	HO53900530	SMG-G-CM	Mechanical console for loadcell 15000 and 20000 Kg with ground plate 320x200mm		3
	HO53900374	CM1-K25M	Loadcell 25000 Kg. round model		3
	HO53900375	CM1-K35M	Loadcell 35000 Kg. round model		3
	HO53900456	MH-25T	Mechanical console for loadcell 25000 and 35000 Kg with ground plate 360x250mm		3



	HO53900810	MP-SMP-SET	Adapter plate silo leg 4xM12 1xM20 incl. mounting material		3
	HO53900425	KAP-MS-G	Synthetic protection cap MS-G(-CT)		3
	HO53900430	KAP-SMG-CM	Synthetic protection cap SMG-CM		3

	HO53900550	JB-SWS	Connection box 6 load cells		3
	HO53900580	JB-SWS-8	Connection box 8 load cells 6-wire connection to CAN-IO-LCA-P		3
	HO53900570	JB-SWS-XL-BOX	Protective box cable loadcells		3
	HO53900555	EASYBUTTON-GR	EasyButton with green pushbutton 1xNO including LED		3


External display near silo

	HO53900900	SD-9	Silo display unit silo content, 24Vdc max 9 silos, max 999,999kg		1
	HO11991940	CAN-ISO	Galvanic isolation CAN-Bus + lightning protection		1
	HO08990800	PS-100	Power supply 24VDC 100VA		1

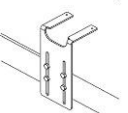





Egg counters without display

	HO07071101	EGGXACT-12	Egg counter. 12 cm / 4 inch wide		1
	HO07071102	EGGXACT-20	Egg counter 20 cm / 8 inch wide		1
	HO07071103	EGGXACT-30	Egg counter 30 cm / 12 inch wide		1
	HO07071104	EGGXACT-40	Egg counter 40 cm / 16 inch wide		1
	HO07071105	EGGXACT-50	Egg counter 50 cm / 20 inch wide		1
	HO07071106	EGGXACT-60	Egg counter 60 cm / 24 inch wide		1
	HO07071107	EGGXACT-70	Egg counter 70 cm / 28 inch wide		1
	HO07071108	EGGXACT-80	Egg counter 80 cm / 32 inch wide		1
	HO07071000	CAN-SENS	CAN interface for sensors, 24Vdc		1



Display for egg counters

	HO07071010	CAN-SENS-D	CAN interface for sensors, 230Vac incl. display		1
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Accessories

	HO07071050	EGGX-MON-S+L	Assembly kit for EggXact egg counter with short and long mounting bracket		1
	HO07071051	EGGX-MON-L+L	Assembly kit for EggXact egg counter with two long mounting brackets		1
	HO07071052	EGGX-MON-S+S	Assembly kit for EggXact egg counter with two short mounting brackets		1
	HO07990101	WDS-7P	Socket + plug 7 pins (male + female + cap)		6
	HO07030100	SENS-IND-SET	Inductive sensor, M8, PNP, IP67, 4mm, 10-30VDC + connector M12 + mounting bracket		3
	HO50010640	CAN-BK	CAN-bus cable for communication		3
	HO50010510	CKY-2X2X0,5	Flexible screened cable 2x 2x 0,5mm ²		3
	HO08010671	CAN-12-6+UPM	In-/Output module for ORION (12x IN /6x OUT) + UPM power supply 24Vdc-1A		1


Peripherals miscellaneous

	HO07050410	LT-25-C-K	Water counter 2,5 m ³ /hour including pulse module 1 puls/ltr, coupling 3/4"		3
	HO07050510	LT-60-C-K	Water counter 6,0 m ³ /hour including pulse module 1 puls/ltr, coupling 1"		3
	HO07050605	LT-Q1,5	Water counter Qn 1,5 for 1,5 m ³ /hour coupling 1/2"		3


24VDC

	HO29000711	VENT-DCO-0,5	Watervalue 1/2" NO 24Vdc		3
	HO29000713	VENT-DCO-0,75	Watervalue 3/4" NO 24Vdc		3
	HO29000715	VENT-DCO-1,0	Watervalue 1" NO 24Vdc		3

230VAC

	HO29000801	VENT-ACO-0,5	Watervalue 1/2" NO 230Vac		3
	HO29000803	VENT-ACO-0,75	Watervalue 3/4" NO 230Vac		3
	HO29000805	VENT-ACO-1,0	Watervalue 1" NO 230Vac		3






The price of larger diameters on request

	HO07043631	MVP-63-12	Measuring fan 63 cm for chimney		3
	HO07043821	MVP-82-12	Measuring fan 82cm for chimney		3
	HO07043921	MVP-92-12	Measuring fan 92cm for chimney		3


3. SLAVE UNITS AND RELAY BOXES

Discount group


	HO06000067	ISA-300-PE	Signal 0-10V Amplifier galvanically isolated 24Vdc, 300cm patch cable, build in panel extern		1
	HO06000020	HLV-10	Amplifier 0-10V with manual control		1
	HO08012110	EPU	Powerunit 10A CE 100-240Vac with 0-10V and manual control 0-100%		1
	HO08012130	EPU-MS	Powerunit 230V-10A CE 0-10V + manual 0-100% + contactor		1
	HO08012220	FRB-4	Relay box 4 motor groups with manual control		1
	HO08012270	FRB-4-220	Relay box 4 motor groups 200-230V with manual control		1
	HO08020200	EKU-1	Slave for flap control for winches 230VAC		1
	HO08020210	EKU-3	Slave for flap control for winches 400VAC		1
	HO08030200	RK-4	Relay box 4 groups (Max. 4 Amp./ 250VAC) incl. manual control		1
	HO08030300	RK-2X2	Relay box 2 motors open/close (Max. 4 Amp./ 250VAC) incl. manual control		1
	HO08990525	TKH-63-1H	Transformer 230V/24Vac, 63VA + 1 manual control		1
	HO08990800	PS-100	Power supply 24VDC 100VA		1
	HO08990700	PS-100-1	Power supply 24VDC 100VA + 1 manual control 0-10V		1
	HO08990730	PS-150-2	Power supply 24Vdc 150VA + 2 manual control 0-10V		1
	HO08020800	HNO-PS	Emergency opening 24 VDC for PS-100 or PS-150		1

	HO08010850	CAN-IO-12-17P	In- / Output module (12x IN /17x OUT)		1
	HO08010680	CAN-IO-20-33	In- / Output module for (20x IN /33x OUT)		1
	HO08010660	CAN-IO-6-14	In- / Output module (6x IN /14x OUT)		1
	HO08040000	CAN-IO-12-6	In- / Output module (12x IN /6x OUT) 100V-240Vac		1
	HO08010770	CAN-IO-16-1P	In- / Output module for (16x IN /1x OUT)		1
	HO08010710	CAN-IO-EKU-1	In- / Output module for motorcontrol 230VAC		1
	HO08010740	CAN-IO-EKU-3	In- / Output module for motorcontrol 400VAC		1
	HO08010690	CAN-IO-LCA	In- / Output module for loadcells 2 weighing entrances. (with silo weighing max. 8 load cells)		1
	HO08010700	CAN-IO-LCA-D	In- / Output module for loadcells with display		1
	HO08010780	CAN-IO-WRS	In- / Output module for weather station with CAN		1


Winch motor control

	HO08031000	WMC-5	Relay box 5 motors max. 16 Amps. incl. manual control, without thermal protections.		1
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Motor direct starter

	HO52011110	LOV-MOT-230	Motor direct starter 230V CSA with H-0-A excl. thermal relay		3
	HO52011310	LOV-MOT-24AC	Motor direct starter 24VAC with H-0-A excl. thermal relay		3

Thermal relay for WMC-5 and LOV-MOT


	HI75623037	LOV-OVB-1,0	Thermal overload relay 0,6-1,0A		3
	HI75623040	LOV-OVB-1,5	Thermal overload relay 0,9-1,5A		3
	HI75623015	LOV-OVB-2,3	Thermal overload relay 1,4-2,3A		3
	HI75623041	LOV-OVB-3,3	Thermal overload relay 2,0-3,3A		3
	HI75623008	LOV-OVB-5,0	Thermal overload relay 3,0-5,0A		3



Motor protections switches

	HO55001003	PKZM01-0,63-K	Motor protection switch 0,4-0,63 Amp with casing		3
	HO55001004	PKZM01-1,00-K	Motor protection switch 0,63- 1 Amp with casing		3
	HO55001005	PKZM01-1,60-K	Motor protection switch 1-1,6 Amp with casing		3
	HO55001006	PKZM01-2,50-K	Motor protection switch 1,6-2,5 Amp with casing		3
	HO55001007	PKZM01-4,00-K	Motor protection switch 2,5-4 Amp with casing		3
	HO55001008	PKZM01-6,30-K	Motor protection switch 4-6,3 Amp with casing		3
	HO55001009	PKZM01-10-K	Motor protection switch 6,3-10 Amp with casing		3
	HO55001203	PKZM01-0,63	Internal part motor protection switch 0,4-0,63 Amp		3
	HO55001204	PKZM01-1,00	Internal part motor protection switch 0,63-1 Amp		3
	HO55001205	PKZM01-1,60	Internal part motor protection switch 1-1,6 Amp		3
	HO55001206	PKZM01-2,50	Internal part motor protection switch 1,6-2,5 Amp		3
	HO55001207	PKZM01-4,00	Internal part motor protection switch 2,5-4 Amp		3
	HO55001208	PKZM01-6,30	Internal part motor protection switch 4-6,3 Amp		3
	HO55001209	PKZM01-10	Internal part motor protection switch 6,3-10 Amp		3
	HI55001101	HI55001101	NHI-E-11-PKZ0 Extra contact for motor protection switch (NO+NC)		3
	HO51091104	WARTEL-M25	Cable gland M25 11-17mm RAL 7035 (UL/CSA)		3



Danfoss frequency controllers

3x 400V IN / 3x 400V OUT

	HI50000247	FC102-P1K1	Frequency controller 3,0A/1,1kW IP55		3
	HI50000182	FC102-P1K5	Frequency controller 4,1A/1,5kW IP55		3
	HI50000239	FC102-P2K2	Frequency controller 5,6A/2,2kW IP55		3
	HI50000256	FC102-P3K0	Frequency controller 7,2A/3,0kW IP55		3
	HI50000249	FC102-P4K0	Frequency controller 10,0A/4,0kW IP55		3
	HI50000257	FC102-P5K5	Frequency controller 13,0A/5,5kW IP55		3
	HI50000183	FC102-P7K5	Frequency controller 16,0A/7,5kW IP55		3
	HI50000235	FC102-P11K	Frequency controller 24,0A/11,0kW IP55		3
	HI50000154	FC102-P15K	Frequency controller 32,0A/15,0kW IP55		3
	HI50000238	FC102-P22K	Frequency controller 44,0A/22,0kW IP55		3
	HO60012650	FC302-PK75	Frequency controller 2,4A/0,75kW IP55		3
	HO60012652	FC302-P1K1	Frequency controller 3,0A/1,1kW IP55		3
	HO60012654	FC302-P1K5	Frequency controller 4,1A/1,5kW IP55		3
	HI50008715	FC302-P2K2	Frequency controller 5,6A/2,2kW IP55		3
	HO60012658	FC302-P3K0	Frequency controller 7,2A/3,0kW IP55		3
	HO60012660	FC302-P4K0	Frequency controller 10,0A/4,0kW IP55		3
	HO60012662	FC302-P5K5	Frequency controller 13,0A/5,5kW IP55		3
	HI50007534	FC302-P11K	Frequency controller 24,0A/11,0kW IP55		3

	HI50005207	FC51-0,75-3/3	Frequency controller FC51 2,2A/0,75kW IP20		3
	HI50005208	FC51-1,5-3/3	Frequency controller FC51 3,7A/1,5kW IP20		3
	HI50005209	FC51-2,2-3/3	Frequency controller FC51 5,3A/2,2kW IP20		3
	HI50005210	FC51-3,0-3/3	Frequency controller FC51 7,2A/3,0kW IP20		3
	HI50005211	FC51-4,0-3/3	Frequency controller FC51 9,0A/4,0kW IP20		3
	HI50005212	FC51-5,5-3/3	Frequency controller FC51 12A/5,5kW IP20		3
	HI50005214	FC51-LCP12	Display LCP with potentiometer for FC51		3

1x 230V IN / 3x 230V OUT

	HI50005204	FC51-0,75-1/3	Frequency controller FC51 4,2A/0,75kW IP20		3
	HI50005200	FC51-1,5-1/3	Frequency controller FC51 6,8A/1,5kW IP20		3
	HI50005205	FC51-2,2-1/3	Frequency controller FC51 9,6A/2,2kW IP20		3
	HI50005214	FC51-LCP12	Display LCP with potentiometer for FC51		3


Ziehl-Abegg frequency controllers

3x 208-480V IN / 3x 208-480V OUT (FSDM series)


	HO60014311	FSDM3AM	Ziehl-Abegg 3-phase Frequency controller 3A IP55		3
	HO60014313	FSDM5AM	Ziehl-Abegg 3-phase Frequency controller 5A IP55		3
	HO60014315	FSDM8AM	Ziehl-Abegg 3-phase Frequency controller 8A IP55		3
	HO60014317	FSDM10AM	Ziehl-Abegg 3-phase Frequency controller 10A IP55		3
	HO60014320	FSDM16AM	Ziehl-Abegg 3-phase Frequency controller 16A IP55		3
	HO60014325	FSDM25AM	Ziehl-Abegg 3-phase frequency controller 25A IP54		3

Higher values on request.

1x 208-277V IN / 1x 208-277V OUT (FXET series)

	HO60014210	FXET4AMQ	Ziehl-Abegg 1-phase frequency controller 4A IP54		3
	HO60014212	FXET6AMQ	Ziehl-Abegg 1-phase frequency controller 6A IP54		3
	HO60014214	FXET10AMQ	Ziehl-Abegg 1-phase frequency controller 10A IP54		3


Hand zero auto switch for frequency controller

	HO60014000	S-D-25	Ziehl-Abegg bypass switch frequency controller H-0-A 3F 25A IP65		3
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Invertek frequency controllers

IP20


1x 200-240V IN / 1x 200-240V OUT

	HI75502040	120043-1F12-1	Frequency controller 0,37kW 4,3A 1ph in, 1ph out 240V IP20 including EMC filter		3
	HI75502054	120070-1F12-1	Frequency controller 0,75kW 7A 1ph in, 1ph out 240V IP20 including EMC filter		3
	HI75502041	220105-1F42-1	Frequency controller 1,1kW 10,5A 1ph in, 1ph out 240V IP20 including EMC filter		3


1x 200-240V IN / 3x 200-240V OUT

	HI75502026	120023-1F12	Frequency controller 0,37kW 2,3A 1ph in, 3ph uit 200-240V IP20 incl. EMC filter without brake chopper		3
	HI75502027	120043-1F12	Frequency controller 0,75kW 4,3A 1ph in, 3ph uit 200-240V IP20 incl. EMC filter without brake chopper		3
	HI75502028	120070-1F12	Frequency controller 1,5kW 7,0A 1ph in, 3ph uit 200-240V IP20 incl. EMC filter without brake chopper		3
	HI75502029	220070-1F42	Frequency controller 1,5kW 7,0A 1ph in, 3ph out 200-240V IP20 incl. EMC filter		3
	HI75502030	220105-1F42	Frequency controller 2,2kW 10,5A 1ph in, 3ph uit 200-240V IP20 incl. EMC filter		3


3x 380-480V IN / 3x 380-480V OUT

	HI75502009	140022-3F12	Frequency controller 0,37kW 2,2A 3ph in, 3ph uit 380-480V IP20 without brake chopper		3
	HI75502016	140041-3F12	Frequency controller 1,5kW 4,1A 3ph in, 3ph uit 380-480V IP20 without brake chopper		3
	HI75502017	240041-3F42	Frequency controller 1,5kW 4,1A 3ph in, 3ph uit 380-480V IP20		3
	HI75502018	240058-3F42	Frequency controller 2,2kW 5,8A 3ph in, 3ph out 380-480V IP20		3
	HI75502019	240095-3F42	Frequency controller 4,0kW 9,5A 3ph in, 3ph out 380-480V IP20		3
	HI75502020	340140-3F42	Frequency controller 5,5kW 14A 3ph in, 3ph out 380-480V IP20		3
	HI75502021	340180-3F42	Frequency controller 7,5kW 18A 3ph in, 3ph out 380-480V IP20		3
	HI75502022	340240-3F42	Frequency controller 11kW 24A 3Ph Ein, 3Ph Aus 380-480V IP20		3
	HI75502023	440300-3F42	Frequency controller 15kW 30A 3ph in, 3ph uit 380-480V IP20		3
	HI75502024	440390-3F42	Frequency controller 18,5kW 39A 3ph in, 3ph uit 380-480V IP20		3
	HI75502025	440460-3F42	Frequency controller 22kW 46A 3ph in, 3ph uit 380-480V IP20		3


IP66
1x 200-240V IN / 1x 200-240V OUT

	HO60015710	120043-1F1A-1	Frequency controller 0,37kW 4,3A 1ph in, 1ph out 240V IP66 without brake chopper		3
	HO60015711	120070-1F1A-1	Frequency controller 0,75kW 7,0A 1ph in, 1ph out 240V IP66 without brake chopper		3
	HO60015712	220105-1F4A-1	Frequency controller 1,1kW 10,5A 1ph in, 1ph out 240V IP66		3


1x 200-240V IN / 3x 200-240V OUT

	HO60015015	120023-1F1A	Frequency controller 0,37kW 2,3A 1ph in, 3ph out 200-240V IP66 without brake chopper		3
	HO60015016	120043-1F1A	Frequency controller 0,75kW 4,3A 1ph in, 3ph out 200-240V IP66 without brake chopper		3
	HI75502055	120070-1F1A	Frequency controller 1,5kW 7A 1ph in, 3ph out 200-240V IP66 without brake chopper		3
	HO60015018	220070-1F4A	Frequency controller 1,5kW 7A 1ph in, 3ph out 200-240V IP66		3
	HO60015019	220105-1F4A	Frequency controller 2,2kW 10,5A 1ph in, 3ph out 200-240V IP66		3


3x 380-480V IN / 3x 380-480V OUT


	HO60015520	140022-3F1A	Frequency controller 0,75kW 2,2A 3ph in, 3ph out 380-480V IP66		3
	HO60015521	140041-3F1A	Frequency controller 1,5kW 4,1A 3ph in, 3ph out 380-480V IP66 without break chopper		3
	HO60015522	240041-3F4A	Frequency controller 1,5kW 4,1A 3ph in, 3ph out 380-480V IP66		3
	HO60015523	240058-3F4A	Frequency controller 2,2kW 5,8A 3ph in, 3ph out 380-480V IP66		3
	HO60015524	240095-3F4A	Frequency controller 4,0kW 9,5A 3ph in, 3ph out 380-480V IP66		3
	HO60015525	340140-3F4A	Frequency controller 5,5kW 14A 3ph in, 3ph out 380-480V IP66		3
	HO60015526	340180-3F4A	Frequency controller 7,5kW 18A 3ph in, 3ph out 380-480V IP66		3
	HO60015527	340240-3F4A	Frequency controller 11kW 24A 3ph in, 3ph out 380-480V IP66		3
	HO60015530	440460-3F4A	Frequency controller 22kW 46A 3ph in, 3ph out 380-480V IP66		3

IP66 with built-in switch
1x 200-240V IN / 3x 200-240V OUT


	HI75502052	120023-1F1B	Frequency controller 0,37kW 2,3A 1ph in, 3ph out 200-240V IP66 without break chopper incl. mainswitch		3
	HO60015026	120043-1F1B	Frequency controller 0,75kW 4,3A 1ph in, 3ph out 200-240V IP66 without break chopper incl. mainswitch		3
	HO60015027	120070-1F1B	Frequency inverter 1,5 kW 7A 1ph in, 3ph out of 200-240V IP66 with built-in main switch, direction switch and potentiometer.		3
	HO60015028	220070-1F4B	Frequency controller 1,5kW 7A 1ph in, 3ph out 200-240V IP66 incl. mainswitch		3
	HO60015029	220105-1F4B	Frequency controller 2,2kW 10,5A 1ph in, 3ph out 200-240V IP66 incl. mainswitch and manual control		3

3x 380-480V IN / 3x 380-480V OUT

	HO60015420	140022-3F1B	Frequency controller 0,75kW 2,2A 3ph in, 3ph out 380-480V IP66 without break chopper incl. mainswitch		3
	HO60015421	140041-3F1B	Frequency controller 1,5kW 4,1A 3ph in, 3ph out 380-480V IP66 without break chopper incl. mainswitch		3
	HO60015422	240041-3F4B	Frequency controller 1,5kW 4,1A 3ph in, 3ph out 380-480V IP66 incl. mainswitch		3
	HI75502059	240058-3F4B	Frequency controller 2,2kW 5,8A 3ph in, 3ph out 380-480V IP66 incl. mainswitch		3
	HO60015424	240095-3F4B	Frequency controller 4,0kW 9,5A 3ph in, 3ph out 380-480V IP66 incl. mainswitch		3
	HO60015425	340140-3F4B	Frequency controller 5,5kW 14A 3ph in, 3ph out 380-480V IP66 incl. mainswitch		3
	HO60015426	340180-3F4B	Frequency controller 7,5kW 18A 3ph in, 3ph out 380-480V IP66 incl. mainswitch		3

	HI75502058	OPT3-STICK-IN	Stick Bluetooth Gateway and parameter memory		3
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Hand zero auto switch for frequency controller





	HO60010772	LC-HA-7,5KW1S	Box with switch 0-1 and 1x H-0-A for 7,5kW		3
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4. FLAP AND CURTAIN CONTROL
MULTIWINCH motor and accessories



Discount group

	HO16001100	MULTIWINCH	Winch motor 24Vdc, 170/340Kg, 90Nm, 0-10V input, double shaft		3
	HO17993019	OS-MW-V-SET	Mounting support flat incl. connection materials MultiWinch		3
	HO53025260	GLP-1-H90	Slide bearing plate B1 \ H90		3
	HO17993014	OS-MW-SET	Mounting support right angle incl. connection materials MultiWinch		3
	HO17993016	GLP-1-A62	Slide bearing plate B1", A=62mm, H=120mm Right angled to be used for MultiWinch without wall mount bracket		3
	HO17993018	BT-MW-K	Plastic belt - cable drum MultiWinch for max. 2m belt, exclusive belt		3
	HO80162466	BAND-1-MW	Separate belt 1m for beltdrum MultiWinch/SmartWinch		3
	HO80162467	BAND-2-MW	Separate belt 2m for beltdrum MultiWinch/SmartWinch		3
	HO17993013	BB-KK-MW	Pipe bolt chain coupling 1" for MultiWinch winch motor		3
	MM00511970	BEV-KBK	Fasteningset bolted chain coupling with shaft		3
	HO53025425	BUIS-1-2,5	Tube (inch) B1x2,5 each rejuvenated hoh 6470mm		3
	MM00512169	BEV-AS	Fasteningset shaft		3
	HO17993003	HS-MW	Hand set for MultiWinch; winch with wall plate, pulley and 3m steel cable		3
	HO17993009	CP-MW-SET	Contra plates for suspension brackets MultiWinch and handwinch		3
	HO52021510	WS-MW-T0-2-1	Maintenance switch incl. mountingset		3






Hoist motors for air inlet valves

	HO53025050	RW45-1-1	Geared motor 230V, 120Nm, 1,0 rpm		3
	HO53025070	RW45-1L-1	Geared motor for winch drum 230V 120Nm 1 rpm		3
	HO53025051	RW45-1-3	Geared motor 400V, 120Nm, 1,0 rpm		3
	HO53025065	RW45-1L-3	Geared motor for winch drum 400V, 120Nm, 1 rpm		3

Hoist motors for pop holes

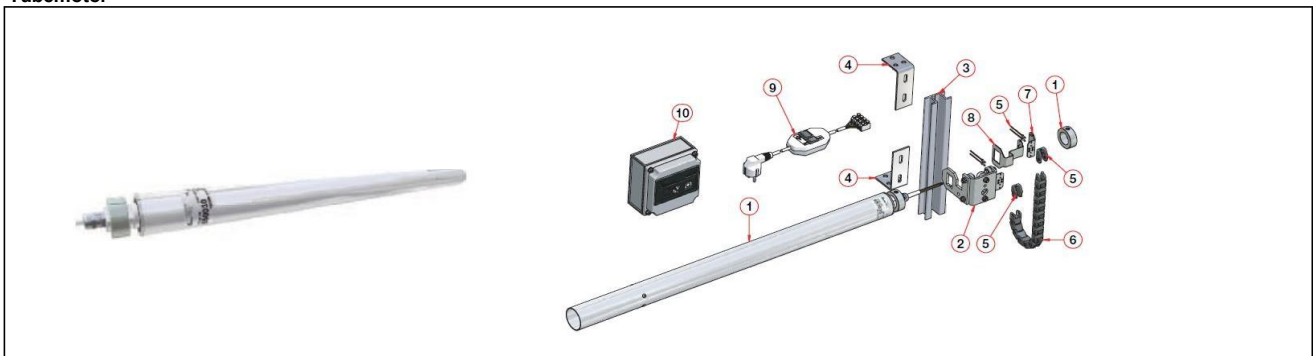
	HO53025080	RW241-3	Geared motor 400V, 240Nm, 1,0 rpm		3
	HO53025090	RW241L-3	Geared motor for winch drum 400V, 240Nm, 1,0 rpm		3

Hoist motors for water and feeding lines

	HO53025082	RW245-3	Geared motor 400V, 240Nm, 5,0 rpm		3
	HO53025092	RW245L-3	Geared motor for winch drum 400V, 240Nm, 5,0 rpm		3
	HO53025102	RW405-3	Geared motor 400V, 400Nm, 5,0 rpm		3
	HO53025112	RW405L-3	Geared motor for winch drum 400V-415V, 400Nm, 5,0 rpm		3
	HO53025122	RW605-3	Geared motor 400V, 600Nm, 5,0 rpm		3


Accessories Ridder motors


	HO53025260	GLP-1-H90	Slide bearing plate B1 \ H90		3
	HO53025274	GLP-5/4-H120	Slide bearing plate B5/4 \ H120		3
	HO53025145	ROND.UNIT-22	Pinion house unit TU11-22		3
	HO53025175	PLAATH	Rack PH22-3L1043\RI1000		3
	HO53025155	RBS	Window connector		3
	HO53025278	KLP-1-H90	Ball bearing plate B1 \ H90		3
	HO53025282	KLP-1-H120	Ball bearing plate B1 \ H120		3
	HO53025285	KLP-5/4-H90	Ball bearing plate B5/4 \ H90		3
	HO53025290	KRK-5/4-A28	Universal joint B5/4 \ A28		3
	HO53025295	KRK-5/4-A34	Universal joint B5/4 \ A34		3
	HO53025300	KBK-1/2-B1	Chain coupling for RW45		3
	HO53025308	KBK-1/2-B5/4	Chain coupling for RW45		3
	HO53025305	KBK-5/8-B1	Chain coupling for RW240/400/600 for pipe 1"		3
	HO53025310	KBK-5/8-B5/4	Chain coupling for RW240/400/600 for pipe 5/4".		3
	HO53025311	KK-5/8-B1-B2	Chain coupling for RW400 and RW600		3
	HO53025312	KK-5/8-B5/4	Chain coupling for RW400 and RW600		3
	HO53025315	LT-E/D	Winch drum single/double D50\A25 for RW 45/240/400 range.		3
	HO53025320	BT-E	Winding belt drum single D51\A25\B45x1000E for RW		3
	HO53025321	BT-E2	Winding belt drum single D50\A25\B50x2000E for RW 45/240/400 range.		3
	HO53025325	BT-D	Winding belt drum double D51\A25\B45x1000D für RW 45/240/400 Serie.		3
	HO53025330	MP-85H90	Square headed mounting plate for RW45		3
	HO53025344	MP-85-105-130	Mounting plate winch for RW45, RW240 and RW400		3
	HO53025335	MP-105H90	Sq. headed mounting plate for RW240, RW400 and RW600		3
	HO53025342	MP-105H120	Sq. headed mounting plate for RW240, RW400 and RW600		3
	HO53025337	MP-130\B503	Straight mounting plate 503,5 mm for RW240, 400 and 600		3
	HO53025570	PS-RW	Mounting kit for potentiometer in RW		3
	HO53025557	POT-10K-S10	Potentiometer 10K 10 rotations wiring		3
	HO53025556	POT-10K-S05	Potentiometer 10K 5 rotations wiring		3
	HO01012352	EO128-C	Encoder for motors		3


Tubemotor


Prices on request


Belimo motors


 10Nm	HO16025256	NM24A	Belimo motor 24 VAC, 10Nm		3
	HO16025250	NM24A-SR	Belimo motor 24 VAC, 10Nm, 0-10 V input		3
	HO16025252	NM230A	Belimo motor 230 VAC, 10Nm		3
	HO16025265	NM230A-SR	Belimo motor 230 VAC, 10Nm, 0-10V input		3

 20Nm	HO16025400	SM24A	Belimo motor 24 VAC, 20Nm		3
	HO16025600	SM24A-SR	Belimo motor 24 VAC, 20Nm, 0-10V input		3
	HO16025305	SM230A	Belimo motor 230 VAC, 20Nm		3
	HO16025500	SM230A-SR	Belimo motor 230 VAC, 20Nm, 0-10V input		3

 40Nm	HO16025905	GM24A	Belimo motor 24 VAC, 40Nm		3
	HO16025900	GM24A-SR	Belimo motor 24 VAC, 40Nm, 0-10V input		3

Belimo motors SPRING RETURN



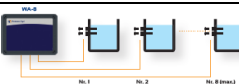

 10Nm	HO16021156	NF24A	Belimo motor 24 VAC, 10Nm, open/close, spring-return		3
	HO16021158	NF24A-SR	Belimo motor 24 VAC, 10Nm, 0-10V input, spring-return		3

 20Nm	HO16021165	SF24A	Belimo motor 24 VAC, 20Nm, open/close, spring-return		3
	HO16021170	SF24A-SR	Belimo motor 24 VAC, 20Nm, 0-10V input, spring-return		3







5. ALARM

Alarm Computers




Discount group

	HO12001000	ACA-1N	Master alarm 1 group		1
	HO12001100	ACA-10N	Master alarm 10 groups		1
	HO12001110	ACA-OM8	Module for 8 outputs on ACA-10N		1
	HO12030300	WA-8	Water alarm 8 inputs		1
	HO12030320	WA-8-AL	Water alarm 8 inputs incl. alarm contact		1
	HO12030400	IMW-64	Signalisation box for water alarm, 64 inputs		1

Other alarmequipment



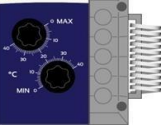
	HO12010401	SIRENE-AS-612	Siren 110 dB, 12VDC, IP44		3
	HO12028145	AU-003	Flash lamp for alarms 10-100Vdc, 20-72Vac 2W, orange.		3
	HO59020020	SIG-ZUIL-1-1	Signal column 1 colour LED 24 V yellow with acoustic signal		3
	HO59020010	SIG-ZUIL-4-1	Signal column 4-colour LED 24V red yellow green white with acoustic signal		3
	HO12010510	PM-31	3-phase voltage monitor		1
	HO13000300	T-52	Double thermostat minimum/maximum 0-40°C & 32-104°F min/max		3

Telephone dialers



	HO12028005	OCTALARM	OCTALARM Alarm dialler, 8 inputs, 2 outputs, RFID login. Alarm can follow through: fixed line PSTN + VoIP + mobile line 4G + Android / IOS APP. 3 NFC keys including.		3
	HO12028168	AA-109	External standard antenne for GSM module (10 meter cable)		3
	HO12028140	AU-001	Alarmbuzzer build-up type for Octalarm-IP & Touch Volume 108 / 95 / 75db (12V / 70-20mA)		3

6. THERMOSTATS AND HEATING

Discount group

	HO13000110	T-51-C/F	Single mechanical thermostat -5 - 45°C / 23 - 113°F		3
	HO98003233	THERMOSTAAT	Mechanical thermostat 0-50°C		3
	HO13000300	T-52	Double thermostat minimum/maximum 0-40°C & 32-104°F min/max		3

Heaters

	HO28033010	P40-D-230V	Heater for diesel 40 kw		2
	HO28033011	P40-P-230V	Heater for petroleum 40 kw		2
	HO28033012	P60-D-230V	Heater for diesel 60 kw		2
	HO28033013	P60-P-230V	Heater for petroleum 60 kw		2
	HO28033014	P80-D-230V	Heater for diesel 80 kw		2
	HO28033015	P80-P-230V	Heater for petroleum 80 kw		2
	HO28033016	P100-D-230V	Heater for diesel 100 kw		2
	HO28033017	P100-P-230V	Heater for petroleum 100 kw		2
	HO28033018	P120-D-230V	Heater for diesel 120 kw		2
	HO28033019	P120-P-230V	Heater for petroleum 120 kw		2
	HO28030050	ONT-POT	De-aerating pot for diesel and petroleum heater		2
	HO28030051	TUBE-20M	Tube 20 meter for diesel and petroleum heater		2
	HO28030052	KLEM-4ST	Clasp 4x for diesel and petroleum heater		2
	HO28034006	ERA33-A-230V	Heater for natural gas 33 kw		2
	HO28034007	ERA33-P-230V	Heater for propane 33 kw		2
	HO28034021	GP40-A-230V-A	Heater for natural gas 40 kw		2
	HO28034022	GP40-P-230V-A	Heater for propane gas 40 kw		2
	HO28034023	GP70-A-230V-A	Heater for natural gas 70 kw		2
	HO28034024	GP70-P-230V-A	Heater for propane gas 70 kw		2
	HO28034025	GP95-A-230V-A	Heater for natural gas 95 kw		2
	HO28034026	GP95-P-230V-A	Heater for propane gas 95 kw		2
	HO28034027	GP120-A230V-A	Heater for natural gas 120 kw		2
	HO28034028	GP120-P230V-A	Heater for propane gas 120 kw		2
	HO28030060	PRO-SET	Propane connection set for heater		2
	HO28030061	PRO-SET-D	Propane connection set for heater for Germany		2
	HO28030076	GAS-SET-14/40	Natural gas connection set for heater for GP14/40		2
	HO28030070	GAS-SET-70/95	Natural gas connection set for heater for GP70/95		2
	HO28030077	GAS-SET-120	Natural gas connection set for heater for GP120		2
	HO28030010	GAS-GDJ-20R04	Overpressure safeguard Natural gas 100 - 400mBar		2

Finned tube



Prices on request

Twin tube and Delta tube



Prices on request

Other heaters on request


7. FANS AND ACCESSORIES
MULTIFAN FANS
Tube mounting fans ErP 2020 / 50Hz

				Discount group
	Reventa / Scan-air chimneys 1 phase			
	HO18033005	6E0635T5S23EA	Tube built-in fan d63 for Reventa tube d65, impeller diameter 640mm 230VAC/50Hz/500W/2,2A 10900m3/h@20Pa	2
	HO18033007	6E0823T5S23EA	Tube built-in fan d82 for Reventa and VKB tube d82, impeller diameter 810mm 230VAC/50Hz/530W/2,4A 14800m3/h@20Pa	2
	HO18033008	6E0923T5S23EA	Tube built-in fan d92 for Reventa tube d92, impeller diameter 908mm 230VAC/50Hz/590W/2,7A 16200m3/h@20Pa	2
	Reventa / Scan-air chimneys 3 phase			
	HO18042003	6D0635T5S40EA	Tube fan d63 for Reventa tube d65, impeller diameter 640mm 230/400VAC/50Hz/530W/2,3/1,3A 11300m3/h@20Pa	2
	HO18042005	6D0824T5S40EA	Tube fan d82 for Reventa and VKB tube d82, impeller diameter 810mm 230/400VAC/50Hz/920W/3/1,8A 19000m3/h@20Pa	2
HO18042006	6D0923T5S40EA	Tube fan d92 for Reventa tube d92, impeller diameter 908mm 230/400VAC/50Hz/760W/2,7/1,6A 20000m3/h@20Pa	2	


Tube mounting fans 60Hz


	Reventa / Scan-air chimneys 1 phase			
	HO18032835	6E0823T6S23NA	Tube built-in fan 82 cm, 240V/60Hz/0,55kW 17.600m3/h@20Pa	2
	HO18032925	8E0923T6S23NA	Tube built-in fan 92 cm, 240V/60Hz/0,69kW 17.600m3/h@20Pa CSA	2
	Reventa / Scan-air chimneys 3 phase			
	HO18042820	6D0823T6S40NA	Tube built-in fan 82cm 3x230V/400V/60Hz 1010RPM 20000m3/h@20Pa 0,85kW	2
HO18042932	6D0923T6S40EA	Tube built-in fan 92cm 3x230V/400V/60Hz 950RPM 20400m3/h@20Pa 0,98kW	2	

Tube mounting fans ErP 2020 / 50Hz


	Van Boxel chimneys 1 phase			
	HO21011914	ADO8-MWQ-24	Tube built-in fan 82cm, for ADO8, 230V/50Hz/0,53kW 14.900m3/h@20Pa	2
	Van Boxel chimneys 3 phase			
HO21012014	ADO8-MDQ-24	Tube built-in fan 82 cm, for ADO8, 3x230/400V/50Hz/0,92kW 19.000m3/h@20Pa	2	

Tube mounting fans 60Hz


	Van Boxel chimneys 1 phase			
	HO21011913	ADO8-MWQ-12-6	Tube built-in fan 82 cm, Q-line, for ADO8, 240V/60Hz/0,55kW 17.600m3/h@20Pa	2
	Van Boxel chimneys 3 phase			
HO21012021	ADO8-MDQ-23-6	Tube built-in fan 82 cm, Q-line, for ADO8, 3x230/400VAC-60Hz (DELTA connection)	2	

	HO21000900	M-BLOK	Mounting blocks for Multifan fan	2
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Wall fans ErP 2020 / 50Hz

	HO18036008	6E0635Q5S23EA	Wall fan d63 230VAC/50Hz/500W/2,2A 10800m3/h@20Pa	2
	HO18036010	6E0923Q5S23EA	Wall fan d92 230VAC/50Hz/590W/2,7A 16200m3/h@20Pa	2
	HO18046118	6D0635Q5S40EA	Wall fan d63 230/400VAC/50Hz/530W/2,3/1,3A 11300m3/h@20Pa	2
	HO18046120	6D0923Q5S40EA	Wall fan d92 230/400VAC/50Hz/760W/2,7/1,6A 20100m3/h@20Pa	2


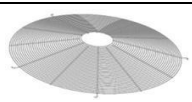
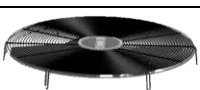
Wall fans 60Hz

	HO18037635	6E0635Q6S23EA	Panel fan 63 cm, Q-line, 240V/60Hz/0,66kW 11.200m3/h@20Pa	2
	HO18037926	8E0923Q6S23NA	Panel fan 92 cm, Q-line, 240V/60Hz/0,69kW 17.700m3/h@20Pa CSA	2
	HO18047635	6D0634Q6S40EA	Panel fan 63 cm, 230/400V/60Hz/0,68kW 12.300m3/h@20Pa	2
	HO18047928	6D0923Q6S40EA	Panel fan 92 cm, 3x400V/60Hz/0,98kW 20.400m3/h@20Pa	2


EASY+FANS / 60Hz

	HO18049130	EASY+FAN082T	Tube built-in fan 82cm 3x230V/60Hz fitted with 2.5m cable, including programmed frequency controller 230V		2
	HO18049110	EASY+FAN092T	Tube built-in fan 92cm 3x230V/60Hz fitted with 2.5m cable, including programmed frequency controller 230V		2
	HO18049120	EASY+FAN063Q	Wall fan 63cm 3x230V/60Hz fitted with 2.5m cable, including programmed frequency controller 230V		2
	HO18049100	EASY+FAN092Q	Wall fan 92cm 3x230V/60Hz fitted with 2.5m cable, including programmed frequency controller 230V		2


Multifan louvre shutters and grills

	HO18020630	HVK-63	Shutter 63 cm		2
	HO18020960	HVK-96	Shutter 96 cm		2
	HO18050630	HR-63Q	Grill for panel fan 63 cm, Q-line, Suction side		2
	HO18050920	HR-92Q	Grill Panelfan 92 cm, Q-line, Suction side		2
	HO18051035	EBO-63Q	Protective grille fan 63 cm, Exhaust side		2
	HO18051092	EBO-92Q	Protective grille for Fan 92 cm, Exhaust side		2


High pressure fans / ErP / 50Hz

	HO18047896	6D0926M5P40EA	Duct module included high pressure fan 92cm 6 blades 980RPM 230/400V/2,25kW/50Hz 25300m3/h@150Pa		2
	HO18047897	6D0928M5P40EA	Duct module included high pressure fan 92cm 8 blades 975RPM 230/400V/2,9kW/50Hz 28900m3/h@150Pa		2


High pressure fans / ErP / 60Hz

	HO18047890	6D0924M6P46EA	Duct module included high pressure fan 92cm, 4 blades, 1160RPM, 460V/1,55kW/60Hz 19700m3/h@ 150Pa		
	HO18047891	6D0924M6P46EA	Duct module included high pressure fan 92cm, 4 blades, 1175 RPM, 460V/2.0kW/60Hz 24400 m3/h@ 150Pa		



Ceiling fans 50Hz

	HO18008400	WDP-140	Ceiling fan 140 cm, IP55, 230V/50Hz/90W 21.250m3/h@0Pa		2
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Mixingfans 50Hz

	HO18070100	TB-6E45Q	Mixing fan 47cm 1-fase Mixing fan, 950 RPM, 230V/ 50Hz/ 0,1kW/ 0,5A without protection grid		2
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Mixingfans 60Hz

	HO18070104	TB-6E45Q-60	Mixing fan 45 cm, Q-line, 1125 RPM, 230V / 60Hz without protection grid		2
	HO18097126	ROSETTB45	Protective grille set diameter 45 for circulation fan		2


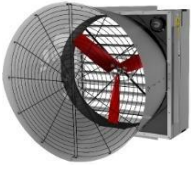
MULTIFAN 50Hz
Endgable fans / 3 phase / 50Hz / model 92

	HO18048301	6D0923B5S40EA	Box fan 92cm 0,77kW/400V/50Hz controlable, ErP 2020, assembled 18500 m3/h at 20 Pa		2
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Endgable fans / 1 phase / 50Hz / model 130

	HO18039225	4E1303B5S23NA	Box fan 130cm 1,6kW/230V/50Hz ErP 2015 assembled 40.000 m3/h at 20Pa		2
	HO18051300	HR-130QCE	Safety kit CE for fan 130 cm, Q-line		2


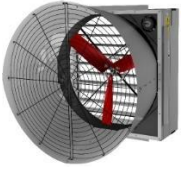
Endgable fans / High volume / 3 phase / 50Hz / model 130

	HO18049473	4D1303B5S40EA	Box fan 130cm 1,6kW/3x400V/50Hz ErP 2020 assembled 42500 m3/h at 20 Pa		2
	HO18049471	4D1303C5S40EA	Cone fan 130cm 1,55kW/3x400V/50Hz ErP 2020 cone assembled 47000 m3/h at 20Pa		2
	HO18051300	HR-130QCE	Safety kit CE for fan 130 cm, Q-line		2


Endgable fans / High volume / 3 phase / 50Hz / model 130

	HO18049479	4D1303B5S40NA	Box fan 130cm 1,6kW/3x400V/50Hz ErP 2015 assembled 41900 m3/h at 20 Pa		2
	HO18049478	4D1303B5S40NU	Box fan 130cm 1,6kW/3x400V/50Hz ErP 2015 unassembled 41900 m3/h at 20 Pa		2
	HO18051300	HR-130QCE	Safety kit CE for fan 130 cm, Q-line		2


Endgable fans / High pressure / 3 phase / 50Hz / model 130

	HO18049437	4D1303B5V40EA	Box fan 130cm 1,45kW/3x400V/50Hz ErP 2020 assembled 41400 m3/h at 20 Pa		2
	HO18049401	4D1303C5V40EA	Cone fan 130cm 1,4kW/3x400V/50Hz ErP 2020 assembled 43800 m3/h at 20 Pa		2
	HO18051300	HR-130QCE	Safety kit CE for fan 130 cm, Q-line		2


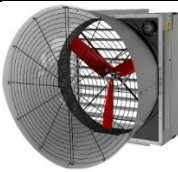
MULTIFAN 60HZ
Endgable fans / 3 phase / 60Hz / model 92

	HO18048305	6D0923B6S40EA	Box fan 92cm, 3x230/400V, 60Hz, controlable, ErP 2020, assembled 19000 m3/h at 20 Pa		2
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Endgable fans / 1 phase / 60Hz / model 130


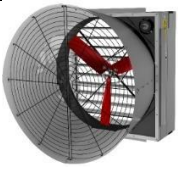
	HO18039226	4E1303B6S23NA	Box fan 130cm 1,65kW/240V/60Hz ErP 2015 assembled 40.900 m3/h at 20 Pa		2
	HO18051300	HR-130QCE	Safety kit CE for fan 130 cm, Q-line		2

Endgable fans / High volume / 3 phase / 60Hz / model 130

	HO18049461	4D1303B6S40NA	Box fan 130cm 1,65kW/3x400V/60Hz ErP 2015 assembled 41200 m3/h at 20 Pa		2
	HO18049488	4D1303C6S40NU	Cone fan 130cm 1,65kW/3x400V/60Hz ErP 2015 unassembled 43800 m3/h at 20 Pa		2
	HO18051300	HR-130QCE	Safety kit CE for fan 130 cm, Q-line		2



3x208V/3x230V-60Hz on request

Endgable fans / High pressure / 3 phase / 60Hz / model 130

	HO18049462	4D1303B6V40EU	Box fan 130cm 1,5kW/3x400V/60Hz ErP 2020 not assembled 41600 m3/h at 20 Pa		2
	HO18049498	4D1303C6V40EU	Cone fan 130cm 1,4kW/3x400V/60Hz ErP 2020 not assembled 44700 m3/h at 20 Pa		2
	HO18051300	HR-130QCE	Safety kit CE for fan 130 cm, Q-line		2


MUNTERS FANS

Munters endgable fans incl. grill and shutter / ErP / 50Hz

	HO18011021	ED36-0,75-3SS	Gable (box) fan ED.36 3x400V/0,75PK 50Hz stainless steel impeller, IE2	2
	HO18011031	ED36-0,75-3MP	Direct driven boxfan ED.36 3x400V/ 50Hz/ 0,75PK 0,55kW/ 1,6A Munters Protect ERP	2
	HO18011078	HR-EM36	Safety pack protection wire for ED-EM36	2
	HO18011130	EM50-1,5-SS-3	Belt driven fan EM.50 400V/1,5PK 50Hz stainless steel impeller IE3 engine	2
	HO18011150	EM50-1,5-MP	Belt driven fan EM.50 400V/ 50Hz/ 1,5PK 1,1kW/ 3A Munters Protect IE3	2
	HO18011178	HR-EM50	Safety pack protection wire for EM50 / EC50	2


Prices for 60Hz and for unassembled fans on request

Accessories Munters endgable fans

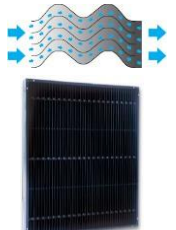
	HO18011198	DEUR-EM50	Isolation door for EM50 metal 138x138cm	3
	HO18011199	ST-DEUR-EM50	Opening Set / door locks for EM 50	3

	HO18011098	DEUR-ED36	Isolation door for ED36 metal 109x109cm	2
	HO18011099	ST-DEUR-ED36	Opening Set / door locks for ED36	2
	HO18011097	VERB-ED36-LFD	Connection between ED36 fan and insulated door or light trap	2

Motorized shutters Munters

	HO18011079	SMT36IN24-P	Jealousy trap 109cm, incl. Internal motor 24V/0-10V	2
	HO18011180	SMT50IN230-OD	Jealousy trap 138cm, incl. Internal motor 230V / 50-60Hz open / close	2
	HO18011179	SMT50IN24-P	Jealousy trap 138cm, incl. Internal motor 24V/0-10V	2
	HO18011193	SMT50IN24-ROD	Jealousy trap 138cm, incl. Internal motor 24V open / close and Protection grid	2

Light traps Munters

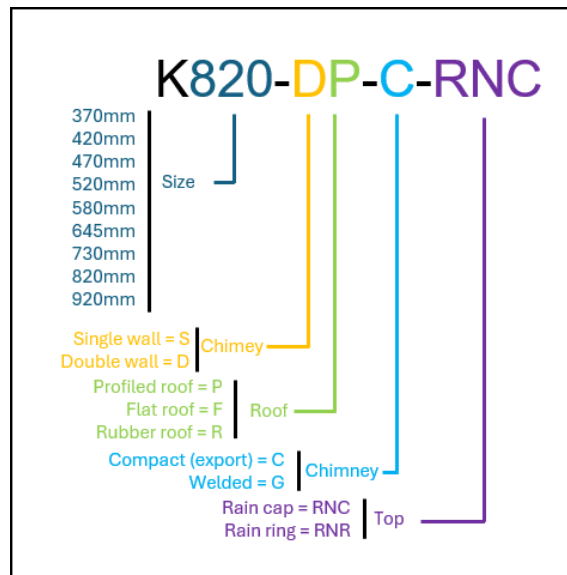
	HO21204036	LFD36	Light trap for ED36 / 92 Multifan fan (Double wave)	2
	HO21204050	LFD50	Light trap for EM50 / 130 Multifan fan (double wave)	2

	HO18019704	VERB-LT-92U	Connection between light trap 92cm / 36" and wall	2
	HO18019690	VERB-LT-4D130	Connectionkit wide between light trap and 4D130 fan	2

8. FAN CHIMNEYS AND ACCESSORIES

SCAN-AIR CHIMNEYS AND ACCESSORIES

Selector Scan-air chimneys:



Single wall ventilation chimney welded

	HO17050005	K645-SP-G-RNR	Single wall ventilation chimney with rain ring, 64,5cm, tube 100cm, profiled roof cover, including stiffening ring, welded	9
	HO17050007	K820-SP-G-RNR	Single wall ventilation chimney with rain ring, 82cm, tube 150cm, profiled roof cover, including stiffening ring, welded	9
	HO17050008	K920-SP-G-RNR	Single wall ventilation chimney with rain ring, 92cm, tube 150cm, profiled roof cover, including stiffening ring, welded	9

	HO17050025	K645-SF-G-RNR	Single wall ventilation chimney with rain ring, 64,5cm, tube 100cm, flat roof cover, including stiffening ring, welded	9
	HO17050027	K820-SF-G-RNR	Single wall ventilation chimney with rain ring, 82cm, tube 150cm, flat roof cover, including stiffening ring, welded	9
	HO17050028	K920-SF-G-RNR	Single wall ventilation chimney with rain ring, 92cm, tube 150cm, flat roof cover, including stiffening ring, welded	9


	HO17050045	K645-SP-G-RNC	Single wall ventilation chimney with rain cap, 64,5cm, tube 100cm, profiled roof cover, including stiffening ring, welded	9
	HO17050047	K820-SP-G-RNC	Single wall ventilation chimney with rain cap, 82cm, tube 150cm, profiled roof cover, including stiffening ring, welded	9
	HO17050048	K920-SP-G-RNC	Single wall ventilation chimney with rain cap, 92cm, tube 150cm, profiled roof cover, including stiffening ring, welded	9


Chimney excl. birdwire


	HO17050065	K645-SF-G-RNC	Single wall ventilation chimney with rain cap, 64,5cm, tube 100cm, flat roof cover, including stiffening ring, welded	9
	HO17050067	K820-SF-G-RNC	Single wall ventilation chimney with rain cap, 82cm, tube 150cm, flat roof cover, including stiffening ring, welded	9
	HO17050068	K920-SF-G-RNC	Single wall ventilation chimney with rain cap, 92cm, tube 150cm, flat roof cover, including stiffening ring, welded	9


Chimney excl. birdwire

Ventilation chimney Compact (export)

	HO17050085	K645-SP-C-RNR	Single wall ventilation chimney with rain ring, 64,5cm, tubes 100cm, profiled roof cover, including stiffening ring, Compact (export).	9
	HO17050087	K820-SP-C-RNR	Single wall ventilation chimney with rain ring, 82cm, tubes 150cm, profiled roof cover, including stiffening ring, Compact (export version)	9
	HO17050088	K920-SP-C-RNR	Single wall ventilation chimney with rain ring, 92cm, tubes 150cm, profiled roof cover, including stiffening ring, Compact (export version)	9
	HO17050205	K645-DP-C-RNR	Double wall ventilation chimney with rain ring, 64,5cm, tubes 100cm, profiled roof cover, including stiffening ring, Compact (export)	9
	HO17050207	K820-DP-C-RNR	Double wall ventilation chimney with rain ring, 82cm, tubes 150cm, profiled roof cover, including stiffening ring, Compact (export version)	9
	HO17050208	K920-DP-C-RNR	Double wall ventilation chimney with rain ring, 92cm, tubes 150cm, profiled roof cover, including stiffening ring, Compact (export version)	9


	HO17050105	K645-SF-C-RNR	Single wall ventilation chimney with rain ring, 64,5cm, tubes 100cm, flat roof cover, including stiffening ring, Compact (export version)	9
	HO17050107	K820-SF-C-RNR	Single wall ventilation chimney with rain ring, 82cm, tubes 150cm, flat roof cover, including stiffening ring, Compact (export version)	9
	HO17050108	K920-SF-C-RNR	Single wall ventilation chimney with rain ring, 92cm, tubes 150cm, flat roof cover, including stiffening ring, Compact (export version)	9
	HO17050225	K645-DV-C-RNR	Double wall ventilation chimney with rain ring, 64,5cm, tubes 100cm, flat roof cover, including stiffening ring, Compact (export version)	9
	HO17050227	K820-DV-C-RNR	Double wall ventilation chimney with rain ring, 82cm, tubes 150cm, flat roof cover, including stiffening ring, Compact (export version)	9
	HO17050228	K920-DV-C-RNR	Double wall ventilation chimney with rain ring, 92cm, tubes 150cm, flat roof cover, including stiffening ring, Compact (export version)	9

	HO17050125	K645-SR-C-RNR	Single wall ventilation chimney with rain ring, 64,5cm, tubes 100cm, roof rubber with connection set, including stiffening ring, Compact (export)	9
	HO17050127	K820-SR-C-RNR	Single wall ventilation chimney with rain ring, 82cm, tubes 150cm, roof rubber with connection set, including stiffening ring, Compact (export)	9
	HO17050128	K920-SR-C-RNR	Single wall ventilation chimney with rain ring, 92cm, tubes 150cm, roof rubber with connection set, including stiffening ring, Compact (export)	9
	HO17050245	K645-DR-C-RNR	Double wall ventilation chimney with rain ring, 64,5cm, tubes 100cm, roof rubber with connection set, including stiffening ring, Compact (export)	9
	HO17050247	K820-DR-C-RNR	Double wall ventilation chimney with rain ring, 82cm, tubes 150cm, roof rubber with connection set, including stiffening ring, Compact (export)	9
	HO17050248	K920-DR-C-RNR	Double wall ventilation chimney with rain ring, 92cm, tubes 150cm, roof rubber with connection set, including stiffening ring, Compact (export)	9


	HO17050145	K645-SP-C-RNC	Single wall ventilation chimney with rain cap, 64,5cm, tubes 100cm, profiled roof cover, including stiffening ring, Compact (export version)	9
	HO17050147	K820-SP-C-RNC	Single wall ventilation chimney with rain cap, 82cm, tubes 150cm, profiled roof cover, including stiffening ring, Compact (export version)	9
	HO17050148	K920-SP-C-RNC	Single wall ventilation chimney with rain cap, 92cm, tubes 150cm, profiled roof cover, including stiffening ring, Compact (export version)	9
	HO17050265	K645-DP-C-RNC	Double wall ventilation chimney with rain cap, 64,5cm, tubes 100cm, profiled roof cover, including stiffening ring, Compact (export version)	9
	HO17050267	K820-DP-C-RNC	Double wall ventilation chimney with rain cap, 82cm, tubes 150cm, profiled roof cover, including stiffening ring, Compact (export version)	9
	HO17050268	K920-DP-C-RNC	Double wall ventilation chimney with rain cap, 92cm, tubes 150cm, profiled roof cover, including stiffening ring, Compact (export version)	9

Chimney excl. birdwire

Ventilation chimney Compact (export)


	HO17050165	K645-SF-C-RNC	Single wall ventilation chimney with rain cap, 64,5cm, tubes 100cm, flat roof cover, including stiffening ring, Compact (export version)	9
	HO17050167	K820-SF-C-RNC	Single wall ventilation chimney with rain cap, 82cm, tubes 150cm, flat roof cover, including stiffening ring, Compact (export version)	9
	HO17050168	K920-SF-C-RNC	Single wall ventilation chimney with rain cap, 92cm, tubes 150cm, flat roof cover, including stiffening ring, Compact (export version)	9
	HO17050285	K645-DV-C-RNC	Double wall ventilation chimney with rain cap, 64,5cm, tubes 100cm, flat roof cover, including stiffening ring, Compact (export version)	9
	HO17050287	K820-DV-C-RNC	Double wall ventilation chimney with rain cap, 82cm, tubes 150cm, flat roof cover, including stiffening ring, Compact (export version)	9
	HO17050288	K920-DV-C-RNC	Double wall ventilation chimney with rain cap, 92cm, tubes 150cm, flat roof cover, including stiffening ring, Compact (export version)	9


Chimney excl. birdwire


	HO17050185	K645-SR-C-RNC	Single wall ventilation chimney with rain cap, 64,5cm, tubes 100cm, roof rubber with connection set, including stiffening ring, Compact (export)	9
	HO17050187	K820-SR-C-RNC	Single wall ventilation chimney with rain cap, 82cm, tubes 150cm, roof rubber with connection set, including stiffening ring, Compact (export)	9
	HO17050188	K920-SR-C-RNC	Single wall ventilation chimney with rain cap, 92cm, tubes 150cm, roof rubber with connection set, including stiffening ring, Compact (export)	9
	HO17050305	K645-DR-C-RNC	Double wall ventilation chimney with rain cap, 64,5cm, tubes 100cm, roof rubber with connection set, including stiffening ring, Compact (export)	9
	HO17050307	K820-DR-C-RNC	Double wall ventilation chimney with rain cap, 82cm, tubes 150cm, roof rubber with connection set, including stiffening ring, Compact (export)	9
	HO17050308	K920-DR-C-RNC	Double wall ventilation chimney with rain cap, 92cm, tubes 150cm, roof rubber with connection set, including stiffening ring, Compact (export)	9

Chimney excl. birdwire


Single wall ventilation tube welded


	HO17050325	VL-SG-645-50	Single wall ventilation tube 64,5cm, tube 50cm welded HDPE.		9
	HO17050327	VL-SG-820-50	Single wall ventilation tube 82cm, tube 50cm welded HDPE.		9
	HO17050328	VL-SG-920-50	Single wall ventilation tube 92cm, tube 50cm welded HDPE.		9


	HO17050345	VL-SG-645-100	Single wall ventilation tube 64,5cm, tube 100cm welded HDPE.		9
	HO17050347	VL-SG-820-100	Single wall ventilation tube 82cm, tube 100cm welded HDPE.		9
	HO17050348	VL-SG-920-100	Single wall ventilation tube 92cm, tube 100cm welded HDPE.		9


	HO17050365	VL-SG-645-150	Single wall ventilation tube 64,5cm, tube 150cm welded HDPE.		9
	HO17050367	VL-SG-820-150	Single wall ventilation tube 82cm, tube 150cm welded HDPE.		9
	HO17050368	VL-SG-920-150	Single wall ventilation tube 92cm, tube 150cm welded HDPE.		9

Ventilation tube Compact (export)


	HO17050385	VL-SC-645-50	Single wall ventilation tube 64,5cm, tube 50cm Compact (export) HDPE.		9
	HO17050387	VL-SC-820-50	Single wall ventilation tube 82cm, tube 50cm Compact (export) HDPE.		9
	HO17050388	VL-SC-920-50	Single wall ventilation tube 92cm, tube 50cm Compact (export) HDPE.		9
	HO17050445	VL-DC-645-50	Double wall ventilation tube 64,5cm, tube 50cm Compact (export) HDPE.		9
	HO17050447	VL-DC-820-50	Double wall ventilation tube 82cm, tube 50cm Compact (export) HDPE.		9
	HO17050448	VL-DC-920-50	Double wall ventilation tube 92cm, tube 50cm Compact (export) HDPE.		9

	HO17050405	VL-SC-645-100	Single wall ventilation tube 64,5cm, tube 100cm Compact (export) HDPE.		9
	HO17050407	VL-SC-820-100	Single wall ventilation tube 82cm, tube 100cm Compact (export) HDPE.		9
	HO17050408	VL-SC-920-100	Single wall ventilation tube 92cm, tube 100cm Compact (export) HDPE.		9
	HO17050465	VL-DC-645-100	Double wall ventilation tube 64,5cm, tube 100cm Compact (export) HDPE.		9
	HO17050467	VL-DC-820-100	Double wall ventilation tube 82cm, tube 100cm Compact (export) HDPE.		9
	HO17050468	VL-DC-920-100	Double wall ventilation tube 92cm, tube 100cm Compact (export) HDPE.		9


	HO17050425	VL-SC-645-150	Single wall ventilation tube 64,5cm, tube 150cm Compact (export) HDPE.		9
	HO17050427	VL-SC-820-150	Single wall ventilation tube 82cm, tube 150cm Compact (export) HDPE.		9
	HO17050428	VL-SC-920-150	Single wall ventilation tube 92cm, tube 150cm Compact (export) HDPE.		9
	HO17050485	VL-DC-645-150	Double wall ventilation tube 64,5cm, tube 150cm Compact (export) HDPE.		9
	HO17050487	VL-DC-820-150	Double wall ventilation tube 82cm, tube 150cm Compact (export) HDPE.		9
	HO17050488	VL-DC-920-150	Double wall ventilation tube 92cm, tube 150cm Compact (export) HDPE.		9

	HO17050801	SA-OHS	Chimney mounting set 3pt (Incl. 15m chaing and 6x Stainless steel S-hook)		9
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Connection piece

	HO17050505	SA-MOF-645	Connection part tube 64,5cm. Suitable for single and double walled pipe, welded or Compact.		9
	HO17050507	SA-MOF-820	Connection part tube 82cm. Suitable for single and double walled pipe, welded or Compact.		9
	HO17050508	SA-MOF-920	Connection part tube 92cm. Suitable for single and double walled pipe, welded or Compact.		9


Connection piece ADU

	HO17050525	ADU-MOF-645	Connection part tube 64,5cm. Suitable for single and double walled pipe, welded or Compact.		9
	HO17050527	ADU-MOF-820	Connection part tube 82cm. Suitable for single and double walled pipe, welded or Compact.		9
	HO17050528	ADU-MOF-920	Connection part tube 92cm. Suitable for single and double walled pipe, welded or Compact.		9


inlet/outlet cone

	HO17050545	SA-IR-645	Inlet/Outlet cone for chimney 64,5cm. Suitable for single and double walled pipe, welded or Compact.		9
	HO17050547	SA-IR-820	Inlet/Outlet cone for chimney 82cm. Suitable for single and double walled pipe, welded or Compact.		9
	HO17050548	SA-IR-920	Inlet/Outlet cone for chimney 92cm. Suitable for single and double walled pipe, welded or Compact.		9


Damper with axle

	HO17050565	SA-SK-645	Damper with axle for chimney 64,5cm. Suitable for single and double walled pipe, welded or Compact.		9
	HO17050567	SA-SK-820	Damper with axle for chimney 82cm. Suitable for single and double walled pipe, welded or Compact.		9
	HO17050568	SA-SK-920	Damper with axle for chimney 92cm. Suitable for single and double walled pipe, welded or Compact.		9


Roset

	HO17050795	SA-ROS-645	Roset for chimney 64,5cm		9
	HO17050797	SA-ROS-820	Roset for chimney 82cm		9
	HO17050798	SA-ROS-920	Roset for chimney 92cm		9

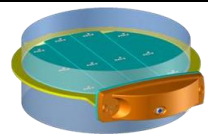
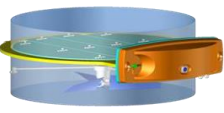
Butterfly valve (built-in)

	HO17050585	SA-VK-I-645	Butterfly valve built-in for chimney 64,5cm. Suitable for single and double walled pipe, welded or Compact. (incl. aggravating counterweight set)		9
	HO17050587	SA-VK-I-820	Butterfly valve built-in for chimney 82cm. Suitable for single and double walled pipe, welded or Compact. (incl. aggravating counterweight set)		9
	HO17050588	SA-VK-I-920	Butterfly valve built-in for chimney 92cm. Suitable for single and double walled pipe, welded or Compact. (incl. aggravating counterweight set)		9


Butterfly valve (built-up)

	HO17050605	SA-VK-O-645	Butterfly valve built-up for chimney 64,5cm. Suitable for single and double walled pipe, welded or Compact. (incl. aggravating counterweight set)		9
	HO17050607	SA-VK-O-820	Butterfly valve built-up for chimney 82cm. Suitable for single and double walled pipe, welded or Compact. (incl. aggravating counterweight set)		9
	HO17050608	SA-VK-O-920	Butterfly valve built-up for chimney 92cm. Suitable for single and double walled pipe, welded or Compact. (incl. aggravating counterweight set)		9

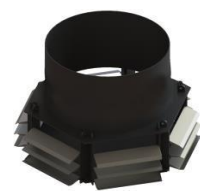
ADU flaps (without intake cone)

	HO21002663	ADU-63ZM	ADU-flap 63 cm with motor		2
	HO21002682	ADU-82ZM	ADU-flap 82 cm with motor		2
	HO21002692	ADU-92ZM	ADU-flap 92 cm with motor		2
	HO21002563	ADU-63	ADU-flap 63 cm with motor + measuring fan		2
	HO21002582	ADU-82	ADU-flap 82 cm with motor + measuring fan		2
	HO21002592	ADU-92	ADU-flap 92 cm with motor + measuring fan		2

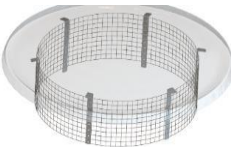
Drip tray including connection set

	HO17050641	SA-DB-645-730	Drip tray including connection set for chimney 64,5 t/m 73cm.		9
	HO17050642	SA-DB-820-920	Drip tray including connection set for chimney 82 t/m 92cm.		9


Unimix unit

	HO17050665	SA-UNIMIX-645	Unimix with 12 Stainless steel spoilers for air distribution in 6 directions. including spacers for recirculation. suitable for chimney 64,5cm.		9
	HO17050667	SA-UNIMIX-820	Unimix with 18 Stainless steel spoilers for air distribution in 6 directions. including spacers for recirculation. suitable for chimney 82cm.		9
	HO17050668	SA-UNIMIX-920	Unimix with 18 Stainless steel spoilers for air distribution in 6 directions. including spacers for recirculation. suitable for chimney 92cm.		9


Birdwire

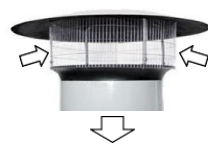
	HO17050685	SA-VG-645	Birdwire galvanized steel for chimney 64,5cm.		9
	HO17050687	SA-VG-820	Birdwire galvanized steel for chimney 82cm.		9
	HO17050688	SA-VG-920	Birdwire galvanized steel for chimney 92cm.		9


Lighttrap

	HO17050705	SA-LF-645	Light trap for chimney 64,5cm.		9
	HO17050707	SA-LF-820	Light trap for chimney 82cm.		9
	HO17050708	SA-LF-920	Light trap for chimney 92cm.		9


REVENTA CHIMNEYS AND ACCESSORIES
Rain hood

	HO21256650	REV65-HG	Rain hood for chimney 650mm, grey		2
	HO21256651	REV65-HB	Rain hood for chimney 650mm, brown		2
	HO21256820	REV82-HG	Rain hood for chimney 820mm, grey		2
	HO21256821	REV82-HB	Rain hood for chimney 820mm, brown		2
	HO21256920	REV92-HG	Rain hood for chimney 920mm, grey		2
	HO21256922	REV92-HB	Rain hood for chimney 920mm, brown		2


	HO21256921	REV65-H+BG	Rain hood incl. bird protection for chimney 650mm, grey		2
	HO21256923	REV65-H+BB	Rain hood incl. bird protection for chimney 650mm, brown		2
	HO21257820	REV82-H+BG	Rain hood incl. bird protection for chimney 820mm, grey		2
	HO21257821	REV82-H+BB	Rain hood incl. bird protection for chimney 820mm, brown		2
	HO21257920	REV92-H+BG	Rain hood incl. bird protection for chimney 920mm, grey		2
	HO21257921	REV92-H+BB	Rain hood incl. bird protection for chimney 920mm, brown		2

	HO21256824	REV82-PRO-HBG	Rain hood XXL incl. bird protection for chimney 820mm, grey		2
	HO21256825	REV82-PRO-HBB	Rain hood XXL incl. bird protection for chimney 820mm, brown		2
	HO21256924	REV92-PRO-HBG	Rain hood XXL incl. bird protection for chimney 920mm, grey		2
	HO21256925	REV92-PRO-HBB	Rain hood XXL incl. bird protection for chimney 920mm, brown		2


End rings

	HO21255650	REV65-ER	End ring for chimney 650mm		2
	HO21255820	REV82-ER	End ring for chimney 820mm		2
	HO21255920	REV92-ER	End ring for chimney 920mm		2


Angle rings

	HO21258650	REV65-HR	Angle ring 50mm for chimney 650mm		2
	HO21258820	REV82-HR	Angle ring 50mm for chimney 820mm		2
	HO21258920	REV92-HR	Angle ring 50mm for chimney 920mm		2


Outlet cones


	HO21250653	REV65-KB+B	Outlet cone for chimney 650mm, brown + connectionset		2
	HO21250654	REV65-KG+B	Outlet cone for chimney 650mm, grey + connectionset		2
	HO21250823	REV82-KB+B	Outlet cone for chimney 820mm, brown + connectionset		2
	HO21250822	REV82-KG+B	Outlet cone for chimney 820mm, grey + connectionset		2
	HO21250923	REV92-KB+B	Outlet cone for chimney 920mm, brown + connectionset		2
	HO21250924	REV92-KG+B	Outlet cone for chimney 920mm, grey + connectionset		2


Export chimneys (vario-clip)


	HO21200650	REV65-B100G	Tube for export chimney 650mm, length 1m, grey		2
	HO21200651	REV65-B100B	Tube for export chimney 650mm, length 1m, brown		2
	HO21200820	REV82-B100G	Tube for export chimney 820mm, length 1m, grey		2
	HO21200821	REV82-B100B	Tube for export chimney 820mm, length 1m, brown		2
	HO21200920	REV92-B100G	Tube for export chimney 920mm, length 1m, grey		2
	HO21200921	REV92-B100B	Tube for export chimney 920mm, length 1m, brown		2
	HO21201650	REV65-B150G	Tube for export chimney 650mm, length 1,5m, grey		2
	HO21201651	REV65-B150B	Tube for export chimney 650mm, length 1,5m, brown		2
	HO21201820	REV82-B150G	Tube for export chimney 820mm, length 1,5m, grey		2
	HO21201821	REV82-B150B	Tube for export chimney 820mm, length 1,5m, brown		2
	HO21201920	REV92-B150G	Tube for export chimney 920mm, length 1,5m, grey		2
	HO21201921	REV92-B150B	Tube for export chimney 920mm, length 1,5m, brown		2

Chimneys (Agroflex)


	HO21200622	REV65B100-AFG	Tube for AgroFlex chimney 650mm, length 1m, grey		2
	HO21200652	REV65B100-AFB	Tube for AgroFlex chimney 650mm, length 1m, brown		2
	HO21200822	REV82B100-AFG	Tube for AgroFlex chimney 820mm, length 1m, grey		2
	HO21200823	REV82B100-AFB	Tube for AgroFlex chimney 820mm, length 1m, brown		2
	HO21200922	REV92B100-AFG	Tube for AgroFlex chimney 920mm, length 1m, grey		2
	HO21200923	REV92B100-AFB	Tube for AgroFlex chimney 920mm, length 1m, brown		2
	HO21200623	REV65B150-AFG	Tube for AgroFlex chimney 650mm, length 1,5m, grey		2
	HO21200653	REV65B150-AFB	Tube for AgroFlex chimney 650mm, length 1,5m, brown		2
	HO21201822	REV82B150-AFG	Tube for AgroFlex chimney 820mm, length 1,5m, grey		2
	HO21201823	REV82B150-AFB	Tube for AgroFlex chimney 820mm, length 1,5m, brown		2
HO21201922	REV92B150-AFG	Tube for AgroFlex chimney 920mm, length 1,5m, grey		2	
HO21201923	REV92B150-AFB	Tube for AgroFlex chimney 920mm, length 1,5m, brown		2	

	HO21240010	REV-LIJMG	Glue for mounting tube of chimney, grey		2
	HO21240011	REV-LIJMB	Glue for mounting tube of chimney, brown		2


	HO21242652	REV65-PBR	Inner ring for securing the bonded joints 650mm		2
	HO21242822	REV82-PBR	Inner ring for securing the bonded joints 820mm		2
	HO21242923	REV92-PBR	Inner ring for securing the bonded joints 920mm		2


	HO21242651	REV65-MSP	Outer duct clamp + inner ring for securing the bonded joints 650mm		2
	HO21242821	REV82-MSP	Outer duct clamp + inner ring for securing the bonded joints 820mm		2
	HO21242921	REV92-MSP	Outer duct clamp + inner ring for securing the bonded joints 920mm		2


Roof panels

	HO21210100	REV37/82-DU	Universal roof panel for chimney 370-820mm		2
	HO21210150	REV92-DU	Universal roof panel for chimney 920mm		2

	HO21990180	REV-LIJM-D	Adhesive for bonding the EPDM roofing panel, 650g		2
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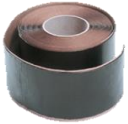
	HO21210650	REV65-DPZG	Roof panel with profile for chimney 650mm (side), grey		
	HO21210651	REV65-DPZB	Roof panel with profile for chimney 650mm (side), brown		
	HO21210820	REV82-DPZG	Roof panel with profile for chimney 820mm (side), grey		
	HO21210821	REV82-DPZB	Roof panel with profile for chimney 820mm (side), brown		
	HO21210920	REV92-DPZG	Roof panel with profile for chimney 920mm (side), grey		2
	HO21210921	REV92-DPZB	Roof panel with profile for chimney 920mm (side), brown		2

	HO21211650	REV65-DVZG	Roof panel flat for chimney 650mm (side), grey		2
	HO21211651	REV65-DVZB	Roof panel flat for chimney 650mm (side), brown		2
	HO21211820	REV82-DVZG	Roof panel flat for chimney 820mm (side), grey		2
	HO21211821	REV82-DVZB	Roof panel flat for chimney 820mm (side), brown		2
	HO21211920	REV92-DVZG	Roof panel flat for chimney 920mm (side), grey		2
	HO21211921	REV92-DVZB	Roof panel flat for chimney 920mm (side), brown		2


	HO21212820	REV82-DVNG	Roof panel flat for chimney 820mm (ridge), grey		2
	HO21212821	REV82-DVNB	Roof panel flat for chimney 820mm (ridge), brown		2
	HO21212920	REV92-DVNG	Roof panel flat for chimney 920mm (ridge), grey		2
	HO21212921	REV92-DVNB	Roof panel flat for chimney 920mm (ridge), brown		2


	HO21219900	REV-OP	Set-up costs per order for DPZ/DVZ/DVN		2
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Sealing tape

	HO21241650	REV65-DTG	Sealing tape for roof panel 650mm, grey		2
	HO21241651	REV65-DTZ	Sealing tape for roof panel 650mm, black		2
	HO21241919	REV92-DTG	Sealing tape for roof panel 920mm, grey		2
	HO21241920	REV92-DTZ	Sealing tape for roof panel 920mm, black		2
	HO21241127	REV127-DTG	Sealing tape for roof panel 1270mm, grey		2
	HO21241128	REV127-DTZ	Sealing tape for roof panel 1270mm, black		2

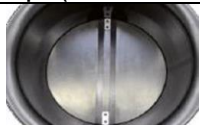
Motor console for servo motor

	HO21271900	REV-MS	Motor console for servo motor without housing		3
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	HO16025290	REV-BEH-1	Protection box IP66 for Belimo motor 5/10/20 Nm (Spring return 4 Nm)		3
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	HO16025298	REV-BEH-ST-1	Motor console for IP66 protection box Belimo motor 5/10/20 Nm		3
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Damper (For servomotor 10Nm / shaft Ø 20mm)

	HO21270650	REV65-TK	Damper for chimney 650mm (PU)		2
	HO21270820	REV82-TK	Damper for chimney 820mm (PU)		2
	HO21270920	REV92-TK	Damper for chimney 920mm (PU)		2

Butterfly dampers


	HO21272064	REV65-VKM-OG	Butterfly valve For the purpose of motor control on chimney gray 650mm without a drive motor 20Nm.		2
	HO21272081	REV82-VKM-OG	Butterfly valve For the purpose of motor control on chimney gray 820mm without a drive motor 20Nm		2
	HO21272091	REV92-VKM-OG	Butterfly valve For the purpose of motor control on chimney gray 920mm without a drive motor 20Nm		2

Shutter module (24 Volt / 0-10V signal) including servomotor


	HO21280650	REV65-RU	Control unit 650mm, without measuring fan 24V AC/DC		2
	HO21280820	REV82-RU	Control unit 820mm, without measuring fan 24V AC/DC		2
	HO21280920	REV92-RU	Control unit 920mm, without measuring fan 24V AC/DC		2

24V / Open-Close available on request

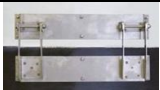
Measuring-and controlunits (24 Volt / 0-10V signal) inclusive servomotor

	HO21281650	REV65-MRU	Measuring and control unit 650mm 24V AC/DC		2
	HO21281820	REV82-MRU	Measuring and control unit 820mm 24V AC/DC		2
	HO21281920	REV92-MRU	Measuring and control unit 920mm 24V AC/DC		2


Grills

	HO21282650	REV65-BR	Grill for RU/MRU 650mm		2
	HO21282820	REV82-BR	Grill for RU/MRU 820mm		2
	HO21282920	REV92-BR	Grill for RU/MRU 920mm		2


Hinge set

	HO21283100	REV37/92-SR	Swivel hinge for 370-920mm		2
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Sealing ring set for hinge set

	HO21283203	REV65-PUR/PS	Set of sealing rings PUR / 30 and PS / 30 for sleeve 650mm, complete with glue.		2
	HO21283205	REV82-PUR/PS	Set of sealing rings PUR / 30 and PS / 30 for sleeve 820mm, complete with glue.		2
	HO21283206	REV92-PUR/PS	Set of sealing rings PUR / 30 and PS / 30 for sleeve 920mm, complete with glue.		2


Intake cones

	HO21254650	REV65-IR	Intake cone for chimney 650mm		2
	HO21254820	REV82-IR	Intake cone for chimney 820mm		2
	HO21254920	REV92-IR	Intake cone for chimney 920mm		2


Drip trays

	HO21260102	REV465-DBZ	Drip tray for chimney 420 / 520 / 580 / 650mm (1100mm), black		2
	HO21260142	REV92-DBZ	Drip tray for chimney 820-920mm (1400mm), black		2
	HO21260506	REV52/65-DBO	Connection set for drip tray 520-650mm (4-points)		2
	HO21260508	REV73/92-DBO	Connection set for drip tray 730-920mm (4-points)		2


Lightraps

	HO21204650	REV65-LF	Lightrap for chimney 650mm		2
	HO21204820	REV82-LF	Lightrap for chimney 820mm		2
	HO21204920	REV92-LF	Lightrap for chimney 920mm		2


Fan rings

	HO21242650	REV65-VR	Fan connection ring for chimney 650mm		2
	HO21242820	REV82-VR	Fan connection ring for chimney 820mm		2
	HO21242922	REV92-VR	Fan connection ring for chimney 920mm		2


Anchoring rings

	HO21275650	REV65-RVR	Anchoring ring for chimney 650mm (stainless steel)		2
	HO21275820	REV82-RVR	Anchoring ring for chimney 820mm (stainless steel)		2
	HO21275920	REV92-RVR	Anchoring ring for chimney 920mm (stainless steel)		2

	HO21288000	BEV-REV-RVR	Fixation set for anchoring REVxx-RVR		2
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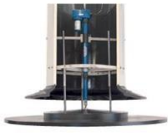



	HO21242000	REV3-KO-E	Connection set single for chimney (3-points)		2
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Storm anchoring rings


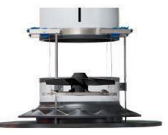
	HO21277650	REV65-SVR	Storm anchoring ring for chimney 650mm		2
	HO21277820	REV82-SVR	Storm anchoring ring for chimney 820mm		2
	HO21277920	REV92-SVR	Storm anchoring ring for chimney 920mm		2

Air distributor

ZLV Neo

	HO21285582	REV82-ZLV-M	Air distributor motor drive chimney 820mm		2
	HO21285921	REV92-ZLV-M	Air distributor motor drive chimney 920mm		2
	HO21284820	REV82-ZLV-C	Air distributor driven by rope (central adjustment) 820mm		2
	HO21284921	REV92-ZLV-C	Air distributor driven by rope (central adjustment) 920mm		2
	HO21285682	REV82-ZLV-M-R	Air distributor 820mm motor drive incl. air circulation fan		2
	HO21285692	REV92-ZLV-M-R	Air distributor 920mm motor drive incl. air circulation fan		2
	HO21285820	REV82-ZLV-C-R	Air distributor 820mm rope drive (central adjustment) incl. air circulation fan		2
	HO21285092	REV92-ZLV-C-R	Air distributor 920mm rope drive (central adjustment) incl. air circulation fan		2

ZLV-Vario

	HO21288182	REV82-ZLV-VDG	Air inlet distribution unit for ZLV-Vario 820mm with de-central control, grey		2
	HO21288183	REV82-ZLV-VDB	Air inlet distribution unit for ZLV-Vario 820mm with de-central control, brown		2
	HO21288293	REV92-ZLV-VDG	Air inlet distribution unit for ZLV-Vario 920mm with de-central control, grey		2
	HO21288291	REV92-ZLV-VDB	Air inlet distribution unit for ZLV-Vario 920mm with de-central control, brown		2
	HO21288184	REV82-ZLV-VCG	Air inlet distribution unit for ZLV-Vario 820mm with central control, grey		2
	HO21288185	REV82-ZLV-VCB	Air inlet distribution unit for ZLV-Vario 820mm with central control, brown		2
	HO21288093	REV92-ZLV-VCG	Air inlet distribution unit for ZLV-Vario 920mm with central control, grey		2
	HO21288091	REV92-ZLV-VCB	Air inlet distribution unit for ZLV-Vario 920mm with central control, brown		2
	HO21288001	OPH-ZLV-D	Mounting kit for ZLV-Vario (de-central), excluding steel wire		2
	HO21288002	OPH-ZLV-C	Mounting kit for ZLV-Vario (central), excluding steel wire		2

ZLV Neo / Vario

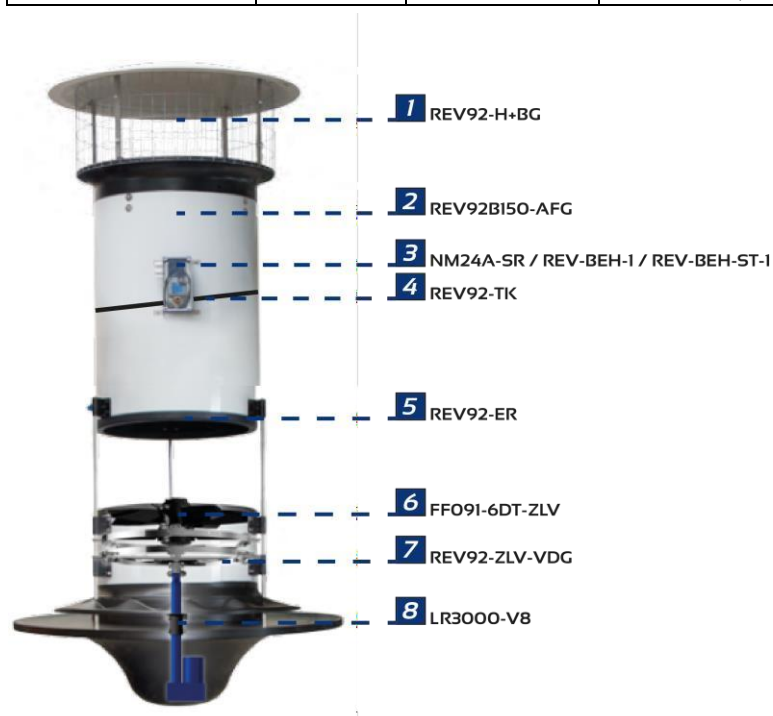
	HO21284950	REV-ZLV-LV	Air conduction unit for ZLV-Neo and ZLV-Vario, Length and width ratio of maximum 3:1.		2
	HO21284929	REV92-ZLV-AG	Protection wire for REV92-ZLV, total height of 1300mm		2
	HO21242310	REV82/92-KAB	Universal cable guide ZLV 820-920mm		2
	HO21242200	REV-SPAN	Universal cable guide wiring		2

Cylinder motor for Neo/Vario

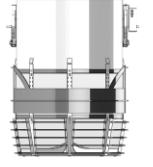

	HO16025282	LR3000-V8	Actuator 3000N, 35cm, 230Vac		3
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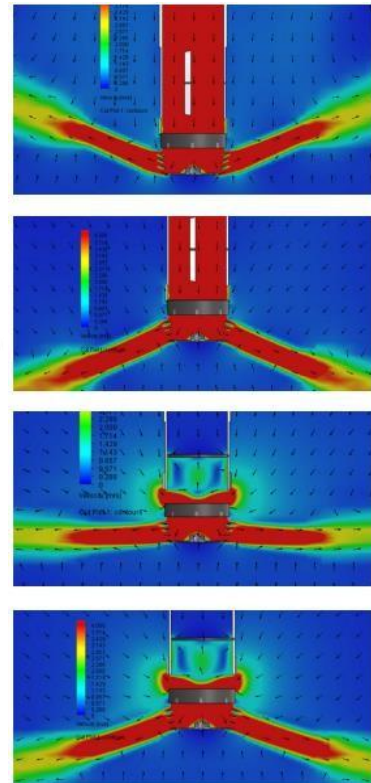
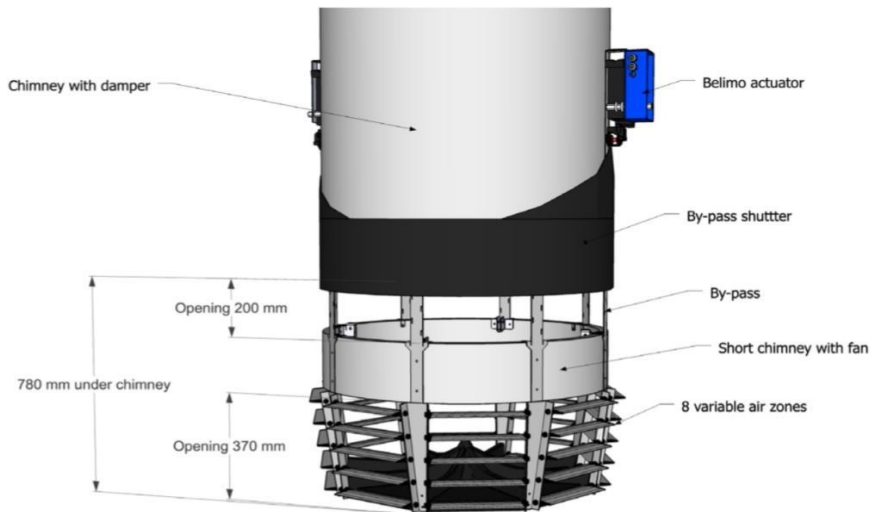
Example
Air inlet chimney with a tube length of 1,5 meters, color grey, de-central control

1	HO21257920	REV92-H+BG	Rain hood incl. bird protection for chimney 920mm, grey		2
2	HO21201922	REV92B150-AFG	Tube for AgroFlex chimney 920mm, length 1,5m, grey		2
3	HO16025250	NM24A-SR	Belimo motor 24 VAC, 10Nm, 0-10 V input		3
3	HO16025290	REV-BEH-1	Protection box IP66 for Belimo motor 5/10/20 Nm (Spring return 4 Nm)		3
3	HO16025298	REV-BEH-ST-1	Motor console for IP66 protection box Belimo motor 5/10/20 Nm		3
4	HO21270920	REV92-TK	Damper for chimney 920mm (PU)		2
5	HO21255920	REV92-ER	End ring for chimney 920mm		2
6	HO18081192	FF091-6DT-ZLV	Tube mounting fan 91cm, FF091-6DT.6F.V3P2, 3x400V/50Hz/0,92kW 22.000m3/h@20Pa, for ZLV		2
7	HO21288293	REV92-ZLV-VDG	Air inlet distribution unit for ZLV-Vario 920mm with de-central control, grey		2
8	HO16025282	LR3000-V8	Actuator 3000N, 35cm, 230Vac		3



Air Equalizer Air distributor




	HO17001280	AIR-EQ-UNIT	Air Equalizer. Air inlet duct with flexible air control. incl. 1 m tube 920mm, Z.A. fan and Belimo controlled damper.		2
	HO21010900	ADO-O	Mounting kit for ADO chimney		2





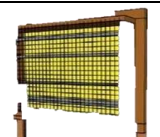




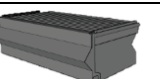
9. AIR INLET SYSTEMS

Tulderhof inlet valves




XSTREAM

	HO17000801	X-STREAM-1-A	Self closing air inlet 385x355x45mm behind the flange, 2250m ³ / h (assembled)		5
	HO17000811	X-STREAM-SP	Spoiler for AEOLUS / X-STREAM air inlet		5
	HO17000810	X-STREAM-MS	Mounting set for AEOLUS / X-STREAM air inlet		5
	HO17000809	X-STREAM-AS	Connection set for X-STREAM air inlet		5
	HO17000808	X-STREAM-MESH	Plastic wire mesh for X-STREAM air inlet		5

FLASH

	HO17001094	FLASH3300A	Flash air inlet 580x390x60mm 3300 m ³ /h (assembled)		5
	HO17001095	FLASH3300	Flash air inlet 580x390x60mm 3300 m ³ /h (unassembled)		5
	HO17001097	AS-FLASH3300	Connectionset for Flash3300 airinlet		5
	HO17001089	AS-FLASH3300Z	Connectionset for Flash3300Z airinlet		5
	HO17001098	AG-FLASH33-KL	Wire mesh 580x400mm for Flash3300 airinlet		5
	HO17001099	MS-FLASH3300	Mounting set for Flash3300 airinlet		5
	HO17001102	FLASH3300-VO	Flash air inlet 3300 m ³ /h spring open kit		5
	HO17001100	FLASH3300-DL	Flash air inlet with day light 580x390x60mm 3300 m ³ /h (unassambeld)		5
	HO20005800	WK-FLASH3300	Wind protection cap for flash3300 airinlets		5
	HO20005805	MSK-FLASH3300	Mounting Set windprotectioncap for flash3300 airinlets		5
	HO20005810	LF-FLASH3300	Light trap for windcap flash3300		5




BL4500

	HO17001802	SET-4500SOJET	Self opening jetstream side inlet PUR 4500 m ³ /h at 20 Pa 857 x 373 mm flange all around including arm and cord		5
	HO17001803	SET-4500SCJET	Self closing jetstream side inlet PUR 4500 m ³ /h at 20 Pa 857 x 373 mm flange all around, including "1 in 3" arm, pulley and cord		5
	HO17001927	BL4500MESH	Mesh grille BL4500 (2x per valve needed) plastic		5

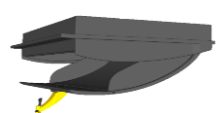
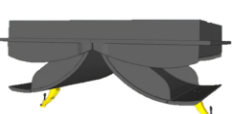
Black line Tunnel inlets for cable connection

	HO17001810	SET-BT-03-SC	Blackline Tunnelgroup 1x3 20Pa-18600m ³ /uur (wxh) 1180x1065mm self-closing including arms and cords		5
	HO17001811	SET-BT-04-SC	Blackline Tunnelgroup 1x4 20Pa-24800m ³ /uur (wxh) 1180x1420mm self-closing including arms and cords		5
	HO17001812	SET-BT-05-SC	Blackline Tunnelgroup 1x5 20Pa-31000m ³ /uur (wxh) 1180x1775mm, self-closing including arms and cords		5

Black line Tunnel inlets for tube connection

	HO17001820	SET-BT-03-SCB	Blackline Tunnelgroup 1x3 20Pa-18600m ³ /uur (wxh) 1180x1065mm self-closing including arms and cords, operation via tube		5
	HO17001821	SET-BT-04-SCB	Blackline Tunnelgroup 1x4 20Pa-24800m ³ /uur (wxh) 1180x1420mm self-closing including arms and cords, operation through tube		5
	HO17001822	SET-BT-05-SCB	Blackline Tunnelgroup 1x5 20Pa-31000m ³ /uur (wxh) 1180x1775mm, self-closing including arms and cords, operation through tube		5
	HO17001912	BTGAAS	Plastic wire mesh set for Black Line tunnel inlet 1160 x 360mm (need 1 per individual valve part)		5

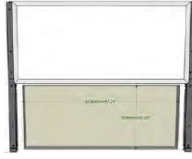
Ceiling air inlet

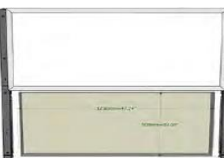
	HO17001400	BLC4000	Horizontal ceiling air inlet 4000 m ³ /h at 20 Pa. 700 x 500 x 100 mm behind the flange (assembled)		5
	HO17001430	AANSBLC4000	Connecting BLC4000 (rope, wire clip, roller)		5
	HO17001440	MONTBLC4000	Mounting set BLC4000 Horizontal ceiling air inlet		5
	HO17001410	BLC8000	Horizontal ceiling air inlet double sided 8000 m ³ /h at 20 Pa. 700 x 1000 x 100 mm behind the flange (assembled)		5
	HO17001431	AANSBLC8000	Connecting BLC8000 (rope, wire clip, roller)		5
	HO17001441	MONTBLC8000	Mounting set BLC8000 Horizontal ceiling air inlet		5

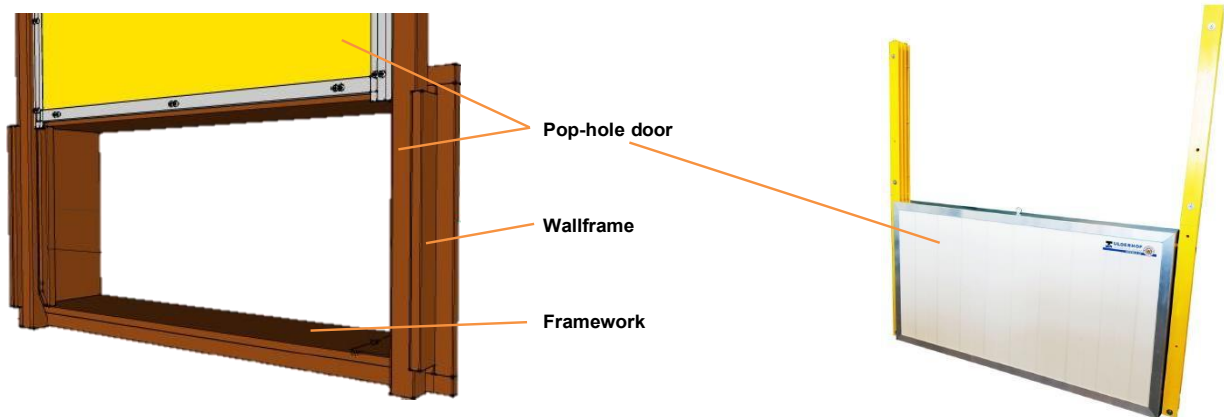
TPI inlet valves

	HO20000800	IW-145-VFG	Inlet valve 2050 m3/h at 20 Pa, curved flap		2
	HO20000810	IW-145-AS	Connection set for IW-145-VFG/VFR		2
	HO20000820	IW-145-AG	Wire mesh for IW-145, Galvanized		2
	HO20000830	IW-145-KS	Valve closing catch for IW-145		2
	HO20000840	145-LG-PU	Air conducting sheet for model IW-145/135		2
	HO20003010	IW-WK-145	Wind protection cap for IW 145 series		2
	HO20003061	IW-LT-WK-145	Light trap for wind protection cap for IW-WK-145		2
	HO20000933	IW-1800-VFG-C	Inlet valve 2700 m3/h at 20 Pa, curved flap, flange in front, central control		2
	HO20000935	IW-1800-AGK	Wire mesh for IW-1800-VFG, Synthetic		2
	HO20000903	IW-3000-VFG-C	Inlet valve 4100 m3/h at 20 Pa, curved flap, flange in front, central control		2
	HO20000922	IW-3000-AGK	Wire mesh for IW-3000-VFG, Synthetic		2
	HO20000924	IW-3000-LG	Air conducting sheet for model IW-3000		2
	HO20003012	IW-WK-3000	Wind protection cap for IW 3000 series		2
	HO20003063	IW-LT-WK-3000	Light trap for wind protection cap for IW-WK-3000		2
	HO20001410	IW-4000-VFG-C	Inlet valve 5500 m3/h at 20 Pa, curved flap central handling		2
	HO20000927	IW-AS-C	Connection set for central controlled inlets		2
	HO20001420	IW-4000-AGK	Wire mesh for IW-4000-VFG, Synthetic		2
	HO20003014	IW-WK-4000	Wind protection cap for IW 4000 series		2
	HO20003065	IW-LT-WK-4000	Light trap for wind protection cap for IW-WK-4000		2
	HO20001105	IW-135-VFR	Inlet valve 2050 m3/h at 20 Pa, turning point flap at bottom, flange inner side		2
	HO20001110	IW-145/135-AS	Connection set for IW-145/135		2
	HO20002000	IW-HANGK	Roll+screw eye+ plug for IW-airinlet		2
	HO20002013	IW-KATROL-C-K	Pulley for central control serving 1800/3000/4000-VFG-C including screws and dowels + valve closer		2

Tulderhof Pop-hole doors




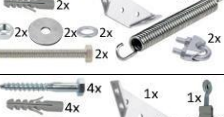


	HO17001350	SUPE1200DAG	Superior daylight outlet slide with net passage 1x 1200x500mm, 1x slide		7
	HO17001351	SUPE1200	Superior pop-hole door net. hole size 1x1200x500 mm - 1 door		7
	HO17001352	SUPE12002X	Superior pop-hole door net. hole size 2x1200x500 mm - 2 doors with middle slide		7
	HO17001353	SUPE12003X	Superior pop-hole door net. hole size 3x1200x500 mm - 3 doors with middle slide		7
	HO17001354	SUPE12004X	Superior pop-hole door net. hole size 4x1200x500 mm - 4 doors with middle slide		7
	HO17001255	SUPE1200KAD	Superior 1200 wall frame 1365x536x60mm behind flange		7
	HO17001257	SUPE1200KAD2X	Superior 1200 2X wall frame 2654x536x60mm behind flange		7
	HO17001258	SUPE1200KAD3X	Superior 1200 3X wall frame 3942x536x60mm behind flange		7
	HO17001259	SUPE1200KAD4X	Superior 1200 4X wall frame 5230x536x60mm behind flange		7
	HO20005870	SUPE1200STOR	Superior 1200 Landfill frame 1236x536x195mm		7
	HO20005871	SUPE1200STOR2	Superior 1200 2x Landfill frame 2527x536x195mm		7
	HO20005872	SUPE1200STOR3	Superior 1200 3x Landfill frame 3818x536x195mm		7
	HO20005873	SUPE1200STOR4	Superior 1200 4x Landfill frame 5109x536x195mm		7

	HO17001380	SUPE1500DAG	Superior daylight outlet slide with net passage 1x 1500x500mm, 1x slide		7
	HO17001381	SUPE1500	Superior pop-hole door net. hole size 1x1500x500 mm - 1 door		7
	HO17001382	SUPE15002X	Superior pop-hole door net. hole size 2x1500x500 mm - 2x door with middle slide		7
	HO17001383	SUPE15003X	Superior pop-hole door net. hole size 3x1500x500 mm - 3x door with middle slide		7
	HO17001251	SUPE1500KAD	Superior 1500 wall frame 1686x536x60mm behind flange		7
	HO17001384	SUPE1500KAD2X	Superior 1500 2X wall frame 3294x536x60mm behind flange		7
	HO17001385	SUPE1500KAD3X	Superior 1500 3X wall frame 4902x536x60mm behind flange		7
	HO20005874	SUPE1500STOR	Superior 1500 Landfill frame 1536x536x195mm		7
	HO20005875	SUPE1500STOR2	Superior 1500 2xLandfill frame 3127x536x195mm		7
	HO20005876	SUPE1500STOR3	Superior 1500 3xLandfill frame 4718x536x195mm		7


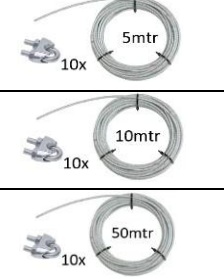







	HO17001278	AS-SUPERIOR	Connection set Superior outlet slide		7
	HO17001279	MS-SUPERIOR	Assembly set Superior outlet slide		7
	HO17001299	AFSLUITPL	Sealing plate BP 500x106x18mm		7
	HO17001297	RVS-HOEK	Stainless steel corner for mounting the middle conductor on concrete		7

Accessories






	HO20070001	INL-AS-SET-UN	5 Universal connection sets for air intake valve including main cable / tie rod support		2
	HO20070002	KATROL-SET-HA	90 mm angle pulley including universal mounting material		2
	HO20070003	KATROL-SET-VL	90 mm Flat pulley universal including mounting material		2
	HO20070004	TV-AS-SET	Tension spring connection set including universal mounting material		2
	HO20070005	KATROL-AS-SET	80mm (3") pulley including universal mounting material		2
	HO20060000	STEUN-PROFI	Guide for puller wire and drawbar max.7mm		2

For 3mm wire / cable

	HO17000411	TREKDR-30100	Stainless steel wire 3 mm (per roll 100m)		3
	HO17000413	TREKDR-30300	Stainless steel wire 3 mm (per roll 300m)		3
	HO20070006	KAB-S-5M-3MM	Steel cable diameter 3 mm, 5 m long including 10 clamps		2
	HO20070007	KAB-S-10M-3MM	Steel cable diameter 3 mm, 10 m long including 10 clamps		2
	HO20070009	KAB-S-50M-3MM	Steel cable diameter 3 mm, 50 m long including 10 clamps		2
	HO17040013	KLEM-3MM-SET	Plastic clamps for inlets, complete for 3,5 mm cable (10 pieces)		2
	HO17040014	STDR-KLEM3-SE	Clamp galvanized for steel wire or cable 3mm (10 pieces)		2

For the benefit of 7mm rod




	HO17000908	TREKST-7-M8	Drawbar 2,5m / 7mm galvanized with M8 coupling nut		5
	HO20070008	TREKST-7-SET	Start and end connection set for pull rod 7mm		2
	HO17040016	STDR-KLEM8-SE	Clamp for steel wire or rod 8mm (10 pieces)		2
	HO17040008	REV-KLEM-6-8	Cable clasp a set of 10 pieces for 6-8 mm pull rod		2
	HO17040015	KH3-VS-SET	Adjustable slide with 3 holes (10 pieces)		2

10. LIGHTING


LED-lighting

PULSA




Discount group

	HO59013705	PULSA-8,7-D-W	Pulsa LED lamp, 48VDC, 8.7W white, 1050lm, 3000K, D MET		3
	HO59013725	PCC-3	Cable 3m between Pulsa LED lights, 2x1,5mm + 2x male plug		3




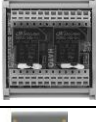



CORAX

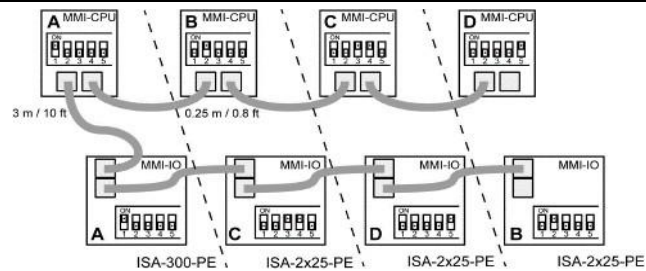
	HO59013809	CORAX-W	CORAX LED-lamp, 48VDC dimmable, WarmWhite 3000K, 8.7W		3
	HO59013841	CORAX-DDS	CORAX LED lamp, Dynamic Daylight Spectrum, 48VDC, warm white 9W, cool white 9W, UV-A 1W.		3
	HO59013862	CORAX-3-W-R	CORAX LED DIM 48VDC 3-polig 8.7W warm white 6W red		3
	HO59013803	CORAX-XL	LED lamp, 48VDC, dimmable, WarmWhite, 3000K, 15.4W		




ARA

	HO59012051	ARA-230-D-WW	LED lamp dimmable 230VDC 7.5W E27 3000K		3
	HO59011560	IUL-27-ARMAT	Cable luminaire IUL, E27		3
	HO59011561	IUL-27-TOPCOV	Protection glass Cable luminaire IUL, E27		3

Divers accessoires LED-lighting

	HI75461096	HLG-48V	MW power supply HLG-320H-48BTE		3
	HO59013305	PACK-148D	HATO PACK 1x48V 320W dimmable 0-10V		3
	HO59013307	PACK-248D	HATO PACK 2x48V 320W dimmable - 2 dim signals 0-10V		3
	HI75461110	HCS	Hato colour switch (single product)		3
	HO59013325	PACK-148D-S	PACK-148D-S HATO POWER PACK 1x 48V 320W dimmable 0-10v with 1x HATO COLOUR SWITCH		3
	HO59013326	PACK-248D-S	HATO POWER PACK 2x 48V 320W dimmable 0-10V with 2x HATO COLOUR SWITCH		3
	HO06000067	ISA-300-PE	Signal 0-10V Amplifier galvanically isolated 24Vdc, 300cm patch cable, build in panel extern		1
	HO06000077	ISA-2X25-PE	Signal 0-10V Amplifier galvanically isolated 24Vdc, 2x 25cm patch cable build in panel extern		1



	HI75642036	HDR-15-12	PSU DIN-rail 12V/1,25A		3
	HO06000020	HLV-10	Amplifier 0-10V with manual control		1
	HO06000010	HLV-10-MS	Amplifier 0-10V with contactor + manual control		1
	HI75461090	EPU-1500	Powerunit 1000-1500W for lighting		3


	HO59011610	VB-ARM	Removal contribution armature		
	HO59011620	VB-LED	Removal contribution LED		
	HO59011100	V-50-ED	Freight / packing till 50 ED-armatures		
	HO59011106	V-50-HWDK	Freight / packing till 50 HWDK-armatures		
	HO59011107	V-50-LED	Freight / packing till 50 LED tube lights		
	HO59011108	V-50-EXTREME	Freight / packing till 50 Extreme armatures		

The freight and packaging costs of lighting will be passed on.


11. COOLING

Pad cooling Munters (polypropylene)

Discount group

	HO18012201	RCP15-1,5	polypropylene cooling pad 1500 x 600 x 150		2
	HO18012202	RCP15-1,8	polypropylene cooling pad 1800 x 600 x 150		2
	HO18012203	RCP15-2	polypropylene cooling pad 2000 x 600 x 150		2
	HO18012204	RCP15-2,5	polypropylene cooling pad 2500 x 600 x 150		2

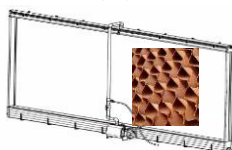
Pad cooling Munters (paper)

	HO18012100	CD7060-15-1	CELDEK Evaporate cooling pad 1000 x 600 x 150 Packaging unit: boxes of 7 pieces		2
	HO18012101	CD7060-15-1,5	CELDEK Evaporate cooling pad 1500 x 600 x 150 Packaging unit: boxes of 7 pieces		2
	HO18012102	CD7060-15-1,8	CELDEK Evaporate cooling pad 1800 x 600 x 150 Packaging unit: boxes of 7 pieces		2
	HO18012103	CD7060-15-2	CELDEK Evaporate cooling pad 2000 x 600 x 150 Packaging unit: boxes of 7 pieces		2
	HO18012104	CD15-DIS	Distribution cooling pad 600 x 150		2

The freight and packaging costs of cooling pads will be passed on.

Pad cooling system Reventa

Prices on request




Spray cooling

Prices on request





The freight costs of spray cooling will be passed on.

12. END OF LIFE 2023 (and accessories)
Poultry computers


	HO05080100	ORION-CL	Climate computer		1
	HO05080200	ORION-PB	Poultry computer for floor keeping		1
	HO05080300	ORION-PS	Poultry computer for free-range and aviary keeping		1
	HO05080400	ORION-PL	Poultry computer for cage houses		1
	HO05080500	ORION-PP	Poultry computer for breeders		1

Feed & silo weighing


	HO05081000	ORION-FWS	Slave computer for feed weigher for ORION		1
	HO05081010	ORION-FWS-1	Computer for feed weighing for 1 house + slave		1
	HO05081020	ORION-FWS-2	Computer for feed weighing for 2 houses + slave		1
	HO05081030	ORION-FWS-3	Computer for feed weighing for 3 houses + slave		1


	HO05081150	ORION-SWS	Computer (slave) for silo weighing		1
	HO05081160	ORION-SWS-1	Computer for silo weighing for 1 house + slave		1
	HO05081180	ORION-SWS-3	Computer for silo weighing for 3 houses + slave		1


Egg counting computers


	HO05081510	ORION-EGG-1	Eggcountcomputer for max. 1 house		1
	HO05081520	ORION-EGG-4	Eggcountcomputer for max. 4 houses		1
	HO05081530	ORION-EGG-8	Eggcountcomputer for max. 8 houses		1
	HO05081570	ORION-FWE-4	Computer feed/water/eggcounting for max. 4 houses		1
	HO05081580	ORION-FWE-8	Computer feed/water/eggcounting for max. 8 houses		1


Communication and management ORION/SIRIUS/MIRA

	HO09030600	RAINBOW+CL	Management prog. (Rainbow+) for PC with SIRIUS / ORION-CL		1
	HO09030610	RAINBOW+PB	Management prog. (Rainbow+) for PC with ORION-PB / MIRA-P		1
	HO09030620	RAINBOW+PS	Management prog. (Rainbow+) for PC with ORION-PS		1
	HO09030630	RAINBOW+PL	Management prog. (Rainbow+) for PC with ORION-PL		1
	HO09030640	RAINBOW+PP	Management prog. (Rainbow+) for PC with ORION-PP		1
	HO09030650	RAINBOW+EGG	Management prog. (Rainbow+) for PC with ORION-EGG		1
	HO09030660	RAINBOW+FWS	Management prog. (Rainbow+) for PC with ORION-FWS		1
	HO09030665	RAINBOW+SWS	Management prog. (Rainbow+) for PC with ORION-SWS / SIRIUS-SWS		1
HO09030685	RAINBOW+DWS	Management prog. (Rainbow+) for PC with SIRIUS-DWS		1	


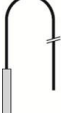



	HO11991650	SMARTLINK	CAN-RS232/USB interface		1
	HO11991800	SMARTLINK-RM	CAN-RS232/USB interface incl. Remote+		1

	HO09005300	SMART-MOD-RM+	Software module Remote+ for SmartLink and Thomas		1
	HO09005301	SMART-MOD-SDC	Software module Smart Data Collector for SmartLink		1

	HO05070957	CAN-OVP	Overvoltage protection for CAN-Bus		1
	HO05070070	MON-SET-OVP-S	Mountingset for overvoltage protection CAN-OVP in Sirius		1
	HO05070075	MON-SET-OVP-C	Mountingset for overvoltage protection CAN-OVP for black box (24x19cm)		1

	HO05070900	CAN-COMM	Module for IRIS / SIRIUS		1
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VARIOUS SENSORS
IRIS, SIRIUS, CYGNUS

	HO07000605	PTC	Temperature sensor for IRIS, SIRIUS and CYGNUS Including connection box		3
	HO07000705	PTC-6	Temperature sensor with 6 m. cable		3
	HO07000750	PTC-15	Temperature sensor with 15 m. cable		3
	HO07000800	PTC-BU	Outside temperature sensor for IRIS, SIRIUS, CYGNUS		3
	HO07000900	PTC-W	Water temperature sensor		3
	HO07020121	OPN-DR-ST	Neg. pressure sensor 0-100Pa + tube set 0-20mA for Sirius CL (S), Sirius-V and IRIS-S.		3

Slave units and relay boxes

	HA08990500	TKH-63	Transformer 230V/24Vac, 63VA		1
	HA08990580	TKH-160-1H	Transformer 230V/24Vac, 160VA + 1 manual control		1

13. SPARE PARTS CURRENT PRODUCTS

PROCESSCOMPUTERS

FORTICA

FORTICA-PB/PBC/PS/FWS

Discount group

	HO38070040	FORTICA-COVER	Cover including display, CPU for Fortica, software and logo		6
	HO38070050	FORTICA-FRAME	Mounting frame including display, CPU for Fortica, software and logo build in panel		6
	HO38041013	CAN-20-33-PWU	Bottom board 100-240V, 45VA for Fortica, Orion and Thomas computers		6
	HO38041027	CON-CAN-20-33	Connector board for CAN-IO-20-33P with IRM powersupply (Orion and Fortica)		6
	HO38070220	FOCUS-SUP-CAP	Capacitor / Battery for Focus hardware		6

ANTARES

ANTARES-CL/PB

	HO38071000	ANTARES-CL-C	Lid 7" Antares-CL spare part		6
	HO38064400	CAN-12-17-PWR	Board for CAN-IO-12-17		6

ANTARES-SAW

	HO38071000	ANTARES-CL-C	Lid 7" Antares-CL spare part		6
	HO38064090	CAN-LCA-P-PWR	Board for CAN-IO-LCA-P		

WMC-5

	HO38130420	WMC-5-MMI	Front board for WMC-5		6
	HO38130430	WMC-5-PWR	Bottom board for WMC-5		6

IO-MODULES

CAN-IO-20-33

	HO38041013	CAN-20-33-PWU	Bottom board 100-240V, 45VA for Fortica, Orion and Thomas computers		6
	HO38041027	CON-CAN-20-33	Connector board for CAN-IO-20-33P with IRM powersupply (Orion and Fortica)		6

CAN-IO-6-14

	HO38054000	CAN-6-14-PWR	Board for CAN-IO-6-14		6
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CAN-IO-12-6

	HO38054021	CAN-12-6-PWR	Board for CAN-IO-12-6 (100-240Vac)		6
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CAN-IO-LCA/LCA-D

	HO38054030	CAN-LCA-PWR	Board for SIRIUS-SWS/SIRIUS-DWS/CAN-IO-LCA		6
	HO38052610	UART-LCA-D	Display for CAN-IO-LCA-D		6

CAN-IO-16-00

	HO38133050	CAN-IO-SLIO	CAN-communication board for ORION-DF		6
	HO38133057	CAN-16-00-PRN	Sensor-read-in + communication board for Orion		6

CAN-IO-00-16

	HO38133050	CAN-IO-SLIO	CAN-communication board for ORION-DF		6
	HO38133056	CAN-00-16-PRN	Valve-motor board + communication board for Orion		6

CAN-IO-EKU-1/-3

	HO38139020	CAN-EKU-PRN	Bottom board for CAN-IO-EKU		6
	HO38133210	EKU-OM-3	Additional board for EKU-N, 3-phase motors		6

COMMUNICATION

SMARTLINK(-RM)

	HO38041005	ORION-XC-CPU	Front board + display for ORION / SMARTLINK / THOMAS		6
	HO38041021	ORION-KEY-S	Keyboard Smartlink		6
	HO38041060	UPM-PWR-30VA	Power supply UPM 100VAC to 240VAC input, 24VDC 1A output		6
	HO11991877	SYSLINQ-PE	Connectivity interface for management and remote control build in panel external (excl. Power supply, FORTUS-FARM and SYSL-REMOTE)		1
	HO09004510	E-SMARTLINK	Update flashcard for SMARTLINK		6

CAN-SWITCH

	HO38094070	CANSWITCH-PRN	Board interface for max. 4 CAN-bus lines		6
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SLAVE UNITS

EPU

	HI47022201	KB/BTA26-800C	EPU-12 Triac BTA26-800 + 22cm wires		6
	HO38132110	EPU-MMI	Front board with CAN-MMI for EPU and EPU-MS		6
	HO38132105	EPU-PWR-10	Bottom board 100-240Vac 10/16A for EPU and EPU-MS		6

FRB-4

	HO38132250	FRB-4-PWR	Bottom board for FRB-4		6
	HO38132253	FRB-4-PWR220V	Bottom board for FRB-4 220VAC		6
	HO38132270	RK-4-SGN	Front board for RK-4 / FRB-4		6

EKU-1/-3

	HO38133230	EKU-PRN	Bottom board for EKU		6
	HO38133210	EKU-OM-3	Additional board for EKU-N, 3-phase motors		6

RK-4

	HO38132260	RK-4-PWR	Bottomboard for RK-4 / RK-2x2		6
	HO38132270	RK-4-SGN	Front board for RK-4 / FRB-4		6

RK-2x2

	HO38132260	RK-4-PWR	Bottomboard for RK-4 / RK-2x2		6
	HO38132280	RK-2X2-SGN	Front board for RK-2x2		6

ESU-N

	HO38130570	ESU-N-PRN	Bottom board for ESU-N		6
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PS-100-1/-2

	HO38130400	PS-100-PWR	Bottom board for PS-100 and PS-150		6
	HO38130410	PS-100-MMI	Front board for PS-100 and PS-150		6
	HO57000800	PS-100-PSU	Power supply 24Vdc / 4.2A spare part		6

HLV-10

	HO38130300	HLV-10-PWR	Bottom board for HLV-10		6
	HO38130301	HLV-10-SGN	Front board for HLV-10		6
	HO38130302	HLV-10-MS-PWR	Extra bottom board with contactor for HLV-10-MS		6
	HO06000100	HLV-PE-POTSET	Potentiometer 10K including panel mounting material for manual control		6

ISA

	HO38132120	MMI-CPU-1	Front board with CAN-MMI for ISA Amplifier or EPU or power controller		6
	HO38132200	MMI-IO-2-2	Bottom board with CAN-MMI for ISA Amplifier		6

EMERGENCY OPENING

HNO-PS

	HO38102291	HNO-PS-PWR	Bottom board for HNO-PS		6
	HO38102295	HNO-MMI	Front board for HNO-PS and HNO-version 2		6
	HI77500305	ACCUPBQ2,3-12	Battery voor ACA-1N/ACA-10N/MCC-3/HNO-P(S) 12V 2,3 AH		6

AIR INLET MOTORS

MULTIWINCH

	HO38130130	MULTIWINCHPRN	Board for MultiWinch / KL300		6
	HO17993020	MK-MW	Bonnet for Multiwinch		6

RW-45/241

	HO80162005	MOTOR-RW	Motor for RW45/RW241/RW45E-220V 50/60Hz		6
	HO80162050	CON-RW35/45	Capacitor 8µF for RW35/45		6
	HO80162112	ESS-RLS-RW-4A	Limit switch set for RW-45, RW-241, RW-401 1 phase / 3-wire 6xNC 4A		3

BIRD WEIGHING

LCA

	HO38132500	LCA-PRN	Interface print for DWS-1N/3 (+LCA-board)		6
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DWS-3-ZW/-4-ZW/-5-ZW/-6-ZW

	HO53900390	AF1-250	Loadcell for DWS-3/DWS-4/DWS-5/DWS-6/DWS-8/DWS-9		3
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FEED WEIGHING

FWS-4N

	HO53900415	BE-3	Loadcell for FWS-4N, 250kg		3
	HO53000065	FWS-4N-M	Motor for feedweigher FWS-4N		6
	HI53004454	HI53004454	FWS-4N-S Limit switch for feedweigher FWS-4N		6
	HO38160526	FWS-4N-SGN	Front board for FWS-4N		6
	HO38160527	FWS-4N-PR+LCA	Board + LCA for FWS-4N		6

ALARM
ACA-1N

	HO38110121	ACA-1N-PWR	Bottom board for ACA-1N		6
	HO38110122	ACA-1N-CPU	Front board for ACA-1N		6
	HI77500305	ACCUPBQ2,3-12	Battery voor ACA-1N/ACA-10N/MCC-3/HNO-P(S) 12V 2,3 AH		6

ACA-10N

	HO38110200	ACA-10N-MMI	Front board for ACA-10N		6
	HO38110210	ACA-10N-PWR	Bottom board for ACA-10N		6
	HI77500305	ACCUPBQ2,3-12	Battery voor ACA-1N/ACA-10N/MCC-3/HNO-P(S) 12V 2,3 AH		6

PM-31

	HI75180009	PM-31-PE	3-phase voltage monitor build in panel		6
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WA-8

	HO38112310	WA-8-AL-PRN	Board for WA-8 including alarm contact		6
	HO12030350	SENSOR-WA8	Sensor for WA-8 wateralarm (set of 10)		3

IMW-64

	HO38110952	IMW-64-PWR	Bottom board for IMW-64		6
	HO38110951	IMW-64-SGN	Front board for IMW-64		6


OCTALARM

	HO12028180	ACCU	Battery for IP Octalarm		3
	HO12028096	ACCU-TOUCH	Battery 6.4V for Octalarm Touch		3

ACCESSORIES FOR EM-36/50 FANS

	HO80360000	M-EM36-0,75	Motor 3x400V/0,75hp-50/60Hz for EM36		6
	HO80360400	W-EM36-SS	Impellor stainless steel for EM36 fan		6
	HO80360002	M-EM50-1,5-3F	Elektric motor 3x400V-50/60Hz 1,5PK for EM50 PU/SL/C		6
	HO80360005	M-EM50-1,5-1F	Electric motor 1x230V/50Hz 1,5HP for EM50 PU/SL/C		6
	HO80360401	W-EM50-SS	Impellor stainless steel for EM50 fan		6

VARIOUS SENSORS
OPN-DOL53-NH3

	HO07091010	DOL53-NH3-RES	Replacement sensor ammonia DOL53 NH3 0-100 ppm 0-10V		6
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WATERCOUNTERS

	HO58992022	PULSGEVER-1L	Pulse generator pulse module 1 liter for LT-15-D-K		3
	HO07051010	LT-PULS	Pulse generator for LT-25-C-K and LT-60-C-K		3
	HO07052010	LT-PULS-P40	Pulse generator for P40, Q1,5 and Q2,5		3

LOADCELLS

	HO53900180	AH-200	Loadcell 200 kg		3
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FANS MULTIFAN
ACCESSORIES FOR ADO8 FANS

	HO80380274	M-6E71Q-24	Motor for 6E71Q/6E82Q/ADO8-MWQ-24 230V (Type 2024)		6
	HO80372283	W-ADO8-MWQ-K	Impeller for ADO8-MWQ / 6E82-I with plastic centre piece		6
	HO80380474	M-6D71Q-24	Motor for 6D71Q/6D82Q/ADO8-MDQ-24 400V (Type 2024)		6
	HO80372484	W-ADO8-MDQ-24	Impeller for ADO8-MDQ-24 / 6D82Q-I with plastic centre piece		6

14. SPARE PARTS FOR NON-CURRENT PRODUCTS

ORION (end of life 2023)

ORION-CL/PB/PS/PL-PP

	HO38041000	ORION-CS-CPU	Front board + display for old version ORION		6
	HO38041005	ORION-XC-CPU	Front board + display for ORION / SMARTLINK / THOMAS		6
	HO38041013	CAN-20-33-PWU	Bottom board 100-240V, 45VA for Fortica, Orion and Thomas computers		6
	HO38041027	CON-CAN-20-33	Connector board for CAN-IO-20-33P with IRM powersupply (Orion and Fortica)		6
	HO38041020	ORION-KEY	Keyboard ORION		6

ORION-FWS

	HO38041000	ORION-CS-CPU	Front board + display for old version ORION		6
	HO38041005	ORION-XC-CPU	Front board + display for ORION / SMARTLINK / THOMAS		6
	HO38041013	CAN-20-33-PWU	Bottom board 100-240V, 45VA for Fortica, Orion and Thomas computers		6
	HO38041027	CON-CAN-20-33	Connector board for CAN-IO-20-33P with IRM powersupply (Orion and Fortica)		6
	HO38041020	ORION-KEY	Keyboard ORION		6

ORION-SWS

	HO38041000	ORION-CS-CPU	Front board + display for old version ORION		6
	HO38041005	ORION-XC-CPU	Front board + display for ORION / SMARTLINK / THOMAS		6
	HO38041020	ORION-KEY	Keyboard ORION		6
	HO38041060	UPM-PWR-30VA	Power supply UPM 100VAC to 240VAC input, 24VDC 1A ou		6

ORION-EGG

	HO38041000	ORION-CS-CPU	Front board + display for old version ORION		6
	HO38041005	ORION-XC-CPU	Front board + display for ORION / SMARTLINK / THOMAS		6
	HO38041020	ORION-KEY	Keyboard ORION		6
	HO38041022	ORION-KEY-2	Keyboard with two extra buttons for ORION		6
	HO38041060	UPM-PWR-30VA	Power supply UPM 100VAC to 240VAC input, 24VDC 1A ou		6
	HO38054021	CAN-12-6-PWR	Board for CAN-IO-12-6 (100-240Vac)		6

MIRA (end of life 2021)

MIRA-P

	HO38120202	CYGNUS-CPU-SD	Front board (basic + can) for Cygnus incl. SD card	Discount group	6
	HO38064130	CAN-10-17-PWU	Board for CAN-IO-10-17 100-240Vac		6
	HO38064110	EXT-2-6-PWR	Extension board for CAN-IO-10-17		1

SIRIUS (end of life 2021)

SIRIUS-V(S)-5A-12A

	HO38052060	SIRIUS-V-CPU	Front board for SIRIUS-V		6
	HO38052087	SIRIUS-V5-PWR	Bottom board for SIRIUS-V 5Amps		6
	HO38052089	SIRIUS-V12PWR	Bottom board for SIRIUS-V 12 Amps		6

SIRIUS-CU

	HO38052080	SIRIUS-CU-CPU	Front board for SIRIUS-CU		6
	HO38052100	SIRIUS-CU-PWR	Bottom board for SIRIUS-CU		6

SIRIUS-CL(S)

	HO38052050	SIRIUS-CL-CPU	Front board for SIRIUS-CL/CLS		6
	HO38052000	SIRIUS-CL-PWR	Bottom board for SIRIUS-CL/CLS		6

SIRIUS-SWS-P

	HO38052070	SIRIUSSWSPCPU	Front board for SIRIUS-SWS-P		6
	HO38054030	CAN-LCA-PWR	Board for SIRIUS-SWS/SIRIUS-DWS/CAN-IO-LCA		6

SIRIUS-DWS

	HO38052030	SIRIUS-DWSCPU	Front board for SIRIUS-SWS		6
	HO38054030	CAN-LCA-PWR	Board for SIRIUS-SWS/SIRIUS-DWS/CAN-IO-LCA		6

CYGNUS (end of life 2021)

CYGNUS-F

	HO38120202	CYGNUS-CPU-SD	Front board (basic + can) for Cygnus incl. SD card		6
	HO38120040	CYGNUS-4-7P	Bottom board for CYGNUS IO-4-7P		6
	HO05090900	CAN-COM-CY	Module for CYGNUS / MIRA		1

CYGNUS-WM

	HO38120202	CYGNUS-CPU-SD	Front board (basic + can) for Cygnus incl. SD card		6
	HO38054000	CAN-6-14-PWR	Board for CAN-IO-6-14		6

CYGNUS-CH

	HO38120202	CYGNUS-CPU-SD	Front board (basic + can) for Cygnus incl. SD card		6
	HO38120010	CYGNUS-8-10P	Bottom board Cygnus-IO-8-10P		6
	HO05090900	CAN-COM-CY	Module for CYGNUS / MIRA		1

IRIS (end of life 2021)
IRIS-V5A/-12A

	HO38042150	IRIS-CPU-V	Front board for IRIS-V		6
	HO38042100	IRIS-PWR-5	Bottom board for IRIS-V 5 Amp		6
	HO38042005	IRIS-PWR-12	Bottom board for DVR-1 / IRIS-V 12 Amp. / EPU-12		6

IRIS-S

	HO38042160	IRIS-CPU-S	Front board for IRIS-S		6
	HO38044000	IRIS-PWR-S	Bottom board for DSR / IRIS-S		6

IRIS-AT

	HO38122160	IRIS-CPU-A	Front board for IRIS-A		6
	HO38042170	IRIS-CPU-T	Front board for IRIS-T		6
	HO38122010	IRIS-PWR-2-4P	Bottom board for IRIS-A / IRIS-T		6

EGG COUNTERS
EMEC-12-12-20

	HO38162510	EMEC-1-PWR	Board for EMEC egg counter		6
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EMEC-12-30/-12-40/-12-50

	HO38162510	EMEC-1-PWR	Board for EMEC egg counter		6
	HO38162520	EMEC-12-X-PWR	Board EMEC-12-20M for EMEC-12-XX egg counter		6

EMEC-30D/-40D/-50D/-60D/-66D/-75D

	HO38162510	EMEC-1-PWR	Board for EMEC egg counter		6
	HO38052517	CAN-12-6-EMEC	Board for EMEC-20-75 Egg Counter (100-240Vac)		6
	HO38052600	UART-EMEC	Display for EMEC-20D-75D		6

EMERGENCY OPENING
HNO-N-450/-4M

	HO38102290	HNO-2-PWR	Bottom board for HNO version 2		6
	HO38102295	HNO-MMI	Front board for HNO-PS and HNO-version 2		6
	HI77500102	OMV-HNO-N-450	transformer for HNO-N-450		6
	HI77500016	ACCU-40-12	Battery 40Ah-12Volt with VDS approval		6
	HI77500101	ACCU-LAD-N	Battery charger for HNO-N-450/900		6

HNO-N-900/-4M

	HO38102290	HNO-2-PWR	Bottom board for HNO version 2		6
	HO38102295	HNO-MMI	Front board for HNO-PS and HNO-version 2		6
	HI77500103	OMV-HNO-N-900	Transformer for HNO-N-900		6
	HI77500017	ACCU-PBQ65-12	Battery for HNO 12V 65 AH		6
	HI77500101	ACCU-LAD-N	Battery charger for HNO-N-450/900		6

SLAVE UNITS
EPU(-12)/(-MS)

	HO38042010	EPU-CPU	Front board for EPU-12		6
	HO38042005	IRIS-PWR-12	Bottom board for DVR-1 / IRIS-V 12 Amp. / EPU-12		6
	HI47022201	KB/BTA26-800C	EPU-12 Triac BTA26-800 + 22cm wires		6
	HO38132020	EPU-12-OMS230	Option board incl. contactor 230Vac for EPU-MS en EPU-12-MS, 12 Amp		6

	HO38133220	EKU-C-PRN	Board +Adapter + Cable tree for EKU-C		6
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1. REPAIR SPARE PARTS

ORION / THOMAS computers / CAN-IO

				Gross price
	HO84100005	R-ORION	Repair ORION-CPU	€ 196,00
	HO84100055	R-ORION	Repair ORION-XC-CPU	€ 196,00
	HO85100400	R-THOMAS-CL1	Repair THOMAS-CL1	€ 234,00
	HO85100575	R-CAN-00-16	Repair CAN-IO-00-16	€ 169,00
	HO84100555	R-CAN-00-16	Repair CAN-IO-00-16 bottom board	€ 153,00
	HO85100570	R-CAN-16-00	Repair CAN-IO-16-00	€ 169,00
	HO84100565	R-CAN-16-00	Repair CAN-IO-16-00 bottom board	€ 153,00
	HO84100535	R-CAN-IO	Repair CAN-IO-10-17 board	€ 153,00
	HO84100505	R-CAN-IO	Repair CAN-IO-12-6 board	€ 143,00
	HO84100510	R-CAN-IO	Repair CAN-IO-16-1 board	€ 143,00
	HO84100540	R-CAN-IO	Repair CAN-IO-20-33 board (35VA)	€ 233,00
	HO84100560	R-CAN-IO	Repair CAN-IO-20-33 PWU (45VA)	€ 233,00
	HO84100500	R-CAN-IO	Repair CAN-IO-6-14 board	€ 158,00
	HO84100570	R-CAN-IO	Repair CAN-IO-7-7 bottom board	€ 153,00
	HO84100575	R-CAN-IO	Repair CAN-IO-8-9 bottom board	€ 153,00
	HO85100510	R-CAN-IO-12-6	Repair CAN-IO-12-6	€ 158,00
	HO85100515	R-CAN-IO-16-1	Repair CAN-IO-16-1	€ 158,00
	HO85100500	R-CAN-IO-20-3	Repair CAN-IO-20-33	€ 279,00
	HO85100505	R-CAN-IO-6-14	Repair CAN-IO-6-14	€ 158,00
	HO85100560	R-CAN-IO-7-7	Repair CAN-IO-7-7	€ 169,00
	HO85100565	R-CAN-IO-8-9	Repair CAN-IO-8-9	€ 169,00

Fortica Climate computers

	HO84120105	R-FORT-COVER	Repair Fortica-deksel and display	€ 395,00
	HO84120110	R-FORT-FRAME	Repair Fortica-frame and display (Panel build in)	€ 395,00
	HO84120115	R-FOCUS-CPU	Repair Fortica-frame and display (Panel build in)	€ 195,00

SIRIUS / CYGNUS Climate computers

	HO84200005	R-SIRIUS	Repair SIRIUS-CPU	€ 137,00
	HO84200030	R-SIRIUS	Repair SIRIUS-CU-PWR	€ 120,00
	HO84200025	R-SIRIUS	Repair SIRIUS-DF-PWR	€ 120,00
	HO84200010	R-SIRIUS	Repair SIRIUS-PWR	€ 109,00
	HO84200020	R-SIRIUS	Repair SIRIUS-V-PWR 12A	€ 120,00
	HO84200015	R-SIRIUS	Repair SIRIUS-V-PWR 5A	€ 114,00
	HO85200025	R-SIRIUS-V-5	Repair SIRIUS-V-5A	€ 219,00
	HO84320020	R-CYGNUS	Repair CYGNUS-6-8P(-5)	€ 120,00
	HO84320015	R-CYGNUS	Repair CYGNUS-8-10P	€ 120,00
	HO84320005	R-CYGNUS	Repair CYGNUS-CPU	€ 120,00
	HO85320005	R-CYGNUS-BSC	Repair CYGNUS-BSC	€ 195,00
	HO85320010	R-CYGNUS-V	Repair CYGNUS-V(-5)	€ 195,00

Ventilation controllers (IRIS)

	HO84300005	R-IRIS	Repair IRIS-CPU	€ 85,00
	HO84300020	R-IRIS	Repair IRIS-S-PWR	€ 81,00
	HO84300015	R-IRIS	Repair IRIS-V-PWR 12A (for IRIS, DVR and EPU)	€ 98,00
	HO84300010	R-IRIS	Repair IRIS-V-PWR 5A	€ 81,00

Slave units

	HO84100520	R-CAN-IO	Repair CAN-IO-EKU-PWR	€ 153,00
	HO85100525	R-CAN-IO-EKU	Repair CAN-IO-EKU	€ 169,00
	HO84400045	R-EKU-PRN	Repair EKU-/ EKU-N-(3) bottom board	€ 93,00
	HO85400005	R-EPU-12	Repair EPU-12 / EPU-12-MS	€ 151,00
	HO84012017	R-EPU-12/16	Repair EPU-12 / EPU-16 / -MS verm.unit	€ 151,00
	HO84300025	R-EPU-PWR	Repair CAN-IO-EPU board	€ 102,00
	HO85400160	R-FRB-4	Repair FRB-4	€ 134,00
	HO84400165	R-FRB-4	Repair FRB-4-PWR bottom board	€ 119,00
	HO84400175	R-FRB	4-SGN Repair FRB-4-SGN cover board	€ 33,00
	HO84400270	R-HLV	Repair HLV-10-PWR	€ 85,00
	HO85400285	R-HLV-10-MS	Repair HLV-10-MS	€ 207,00
	HO85400280	R-HNO-PS	Repair HNO-PS	€ 134,00
	HO84400215	R-HNO-PS	Repair HNO-PS-PWR	€ 105,00
	HO84400365	R-PS-100/150	Repair PS-100 bottom board	€ 86,00
	HO85400265	R-PS-100-1	Repair PS-100-1	€ 134,00
	HO85400270	R-PS-100/150	Repair PS-100/150-2	€ 134,00
	HO84400280	R-RK-2X2-SGN	Repair RK-2x2-SGN cover board	€ 43,00
	HO84400285	R-RK-4-PWR	Repair RK-4-PWR bottom board	€ 52,00
	HO85310025	R-TKR-1	Repair TKR-1	€ 84,00
	HO84700210	R-WA-8	Repair WA-8 board	€ 111,00
	HO84400090	R-WMC-5	Repair WMC-5 bottom board	€ 225,00

Feed- / Birdweighing

	HO84500005	R-FWS	Repair FWS-4N+LCA board	€ 179,00
	HO85100100	R-ORION-FWS	Repair ORION-FWS	€ 351,00
	HO84100515	R-CAN-IO	Repair CAN-IO-LCA board	€ 153,00
	HO85100520	R-CAN-IO-LCA	Repair CAN-IO-LCA	€ 169,00
	HO84510110	R-LCA	Repair LCA interfaceboard	€ 127,00

Communication

	HO84600105	R-CAN	Repair CAN-SWITCH-PRN	€ 133,00
	HO85600025	R-SMARTLINK	Repair SMARTLINK / -RM	€ 234,00
	HO85600035	R-CAN-SWITCH	Repair CAN-SWITCH	€ 234,00

Alarm controllers

	HO84700030	R-ACA	Repair ACA-10N-MMI cover board	€ 81,00
	HO84700025	R-ACA	Repair ACA-10N-PWR	€ 151,00
	HO84700020	R-ACA	Repair ACA-1N-CPU	€ 99,00
	HO84700015	R-ACA	Repair ACA-1N-PWR	€ 112,00
	HO85700015	R-ACA-10N	Repair ACA-10N	€ 164,00
	HO85700010	R-ACA-1N	Repair ACA-1N	€ 127,00

Sensors

	HO84100580	R-CAN-SENS-PR	Repair CAN-SENS bottom board	€ 153,00
	HO84800005	R-EMEC	Repair EMEC-12 board	€ 94,00
	HO84800010	R-EMEC	Repair EMEC-12-X-PWR	€ 149,00

Handling / research costs

	HO85999991	R-OND	Research costs	€ 60,00
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RMA conditions

1. Delivery to Hotraco Agri:

Every **single** product for repair or return should be accompanied by a **completely** filled out Hotraco Agri RMA form. Products that come without a correctly filled in form will **not** be accepted. This RMA form can be acquired at our sales department, at RMA@Hotraco.com or can be downloaded from our website www.hotraco-agri.com

2. Packing:

All items for repair or return should be packed **separately** and **properly** for us to be accepted. Unsound packed items will be **refused**. We will **NOT** accept responsibility for damaged items due to unsound packaging.

3. Handling costs:

For items sent to repair which are found to be not defective and working, we will charge handling costs, being at least € 60,00 for each single product. If a repair is found not worthwhile or if the item is not repairable, providing that a new replacing item is ordered, we will NOT charge you for research costs.

Items that are unreliable, not worthwhile repairing or not repairable will be disposed of at Hotraco Agri.

4. Warranty:

Our warranty period deviates from the warranty period mentioned in the METAALUNIECONDITIONS (6 months warranty) being **1 year** after delivery by Hotraco Agri and is applicable to all our devices (the despatch date is leading). However, warranty is never applicable when the cause of the defect is due to external influences such as an unreliable power supply, improper use, weather conditions, wrong storage or mounting and installation faults. If warranty is claimed for defective devices we need you to send these to Hotraco Agri postage prepaid. Replacement products that are sent by us in advance, will be charged to you as usual. After the defective device has been checked by us, we will decide if warranty is applicable. In case the product can be repaired in a sensible way, it will be returned to you*.

*The customer is only entitled to replacement free of charge when repair is not possible or not worthwhile and providing that warranty is applicable. A product that has been replaced and turned out to be unrepairable, will become property of Hotraco Agri.

If the warranty period has expired and the product can be repaired, we will charge you for the repair costs.

When a defect is discovered we urge you to notify us in writing. If a defect is not announced, we are discharged from all obligations. The defective products need to be complete and sent to us **immediately**, accompanied by an RMA- form and postage prepaid.

Warranty is not applicable in case of:

Normal wear, improper use, lack of maintenance or incorrect maintenance and modifications to or repair of the devices by the customer or third parties.

The warranty period on a repaired item is 3 months. The despatch date (return date Hotraco Agri to customer) is leading.

Hotraco products older than 10 years (see production date on print) can no longer be offered for repair.

5. Lightning damage / water damage / over load:

Products that have been struck by lightning, have been damaged by water or have been submitted to an electrical over load / discharge will not be repaired. Moreover, warranty is never applicable in these cases.

In all cases where these conditions do not meet, the Metaalunie conditions apply

General Terms and Conditions of Hotraco Group B.V. and its affiliated companies

Article 1: Applicability

1. These Terms and Conditions apply to all offers made by Hotraco Group B.V. and its affiliated companies, including, without limitation, Hotraco Agri, Hotraco Horti, and Mooj Agro, hereinafter referred to as "Hotraco", to all agreements Hotraco enters into and any agreements arising from such agreements, all insofar as Hotraco acts as a provider or contractor.
2. Hotraco is hereinafter referred to as the contractor. The other party is hereinafter referred to as the principal.
3. In the event of a conflict between the contents of the agreement entered into between the principal and the contractor and these conditions, the provisions of the agreement will prevail.

Article 2: Offers

- 2.1. Offers are free of obligation. The contractor is entitled to revoke its offer up to two working days after receiving the acceptance.
- 2.2. The contractor may assume that any information it receives from the principal is accurate and complete, and will base its offer on it.
- 2.3. The prices stated in the offer are expressed in euros, and are exclusive of turnover tax and other government levies or taxes. In addition, the prices are exclusive of travel and accommodation expenses, packaging costs, storage costs and transport costs, as well as of the costs of loading, unloading and compliance with customs formalities.

Article 3: Confidentiality

- 3.1. Any information provided to the principal by or on behalf of the contractor (such as offers, designs, illustrations, drawings and know-how), of any nature and in any form whatsoever, is confidential and the principal will refrain from using it for any purpose other than for the performance of the agreement.
- 3.2. The principal will refrain from disclosing or reproducing the information referred to in paragraph 1 of this article.
- 3.3. If the principal violates any of the obligations referred to in paragraphs 1 and 2 of this article, this will result in it being liable to pay an immediately due and payable penalty of € 25,000.00 per violation. This penalty may be claimed in addition to any compensation pursuant to the law.
- 3.4. At the contractor's discretion, the principal must return or destroy the information referred to in paragraph 1 of this article at the contractor's first request, within a period set by the contractor. A violation of this provision will result in the principal being liable to pay the contractor an immediately due and payable penalty of € 1,000.00 per day. This penalty may be claimed in addition to any compensation pursuant to the law.

Article 4: Advice and information provided

- 4.1. The principal cannot derive any rights from advice or information of the contractor that is not directly related to the assignment.
- 4.2. In performing the agreement, the contractor may assume that any information it receives from the principal is accurate and complete.
- 4.3. The principal indemnifies the contractor against any third-party claims with regard to the use of any advice, drawings, calculations, designs, models, brands, demos, models and the like provided by or on behalf of the principal. The principal will compensate any loss suffered by the contractor, including the full costs incurred in opposing such claims.

Article 5: Delivery period/performance period

- 5.1. Any communicated delivery period or performance period is indicative.
- 5.2. The delivery period or performance period only commences after agreement has been reached on all the commercial and technical details, all information - including final and approved drawings, etc. - has been received, the agreed payment or instalment has been received and the other conditions for the carrying out of the assignment have been met.
- 5.3. In the event of:
 - a. circumstances other than those known to the contractor when it communicated the delivery period or performance period, such delivery period or performance period will be extended by the time the contractor needs to carry out the assignment under the relevant circumstances, with due observance of its schedule;
 - b. contract extras, the delivery period or performance period will be extended by the time the contractor needs to deliver the required materials and parts or have them delivered and perform the contract extras;
 - c. suspension of obligations by the contractor, the delivery period or performance period will be extended by the time it needs to carry out the assignment after the reason for the suspension has been removed, with due observance of its schedule.Subject to the principal providing proof to the contrary, the duration of the extension of the delivery period or performance period will be presumed to be necessary and to be the result of a situation as referred to under a, through c. above.
- 5.4. The principal is obliged to pay any costs incurred or loss suffered by the contractor as a result of a delay in the delivery period or performance period, as referred to in paragraph 3 of this article.
- 5.5. Exceeding the delivery period or performance period will under no circumstances entitle the principal to compensation or dissolution. The principal indemnifies the contractor against any third-party claims in connection with the delivery period or performance period being exceeded.

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- 8.2. Force majeure includes third parties engaged by contractors – such as suppliers, subcontractors and transporters, or other parties on the principal depends – failing to comply with their obligations, war conditions, natural disasters, terrorism, cybercrime, disruption of digital infrastructure, fire, power failures, loss, theft or destruction of tools, materials or information, roadblocks, strikes or work interruptions and import or trade restrictions.
- 8.3. The contractor will be entitled to suspend compliance with its obligations towards the principal if it is prevented from doing so due to force majeure. Once the force majeure situation has lapsed, the contractor will comply with its obligations as soon as its schedule permits it to do so.
- 8.4. In the event that, in a force majeure situation, compliance is or becomes permanently impossible, or a temporary force majeure situation lasts more than six months, the contractor will be entitled to terminate the agreement, in full or in part, with immediate effect. In such case, the principal will be authorised to terminate the agreement with immediate effect, but only with regard to that part of the obligations that the contractor has not complied with yet.
- 8.5. The parties are not entitled to compensation for any loss suffered or to be satisfied with regard to the force majeure, suspension or termination within the meaning of this article.

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- 3.6. The principal indemnifies the contractor against any third-party claims pursuant to product liability in connection with a defect in a product the principal has supplied to a third party and of which the products or materials supplied by the contractor are part. The principal is obliged to compensate any loss suffered by the contractor in this respect, including the (full) costs incurred in opposing such claims.

Article 14: Guarantee and other claims

- 14.1. Unless agreed otherwise in writing, the contractor guarantees the proper carrying out of the agreed work for a period of twelve months after its delivery, as described in further detail in the following paragraphs.
- 14.2. If the parties have agreed on derogating guarantee conditions, the provisions of this article will apply in full, unless this is contrary to such derogating guarantee conditions.
- 14.3. If the agreed work has not been carried out properly, the contractor will – within a reasonable period of time – decide whether it will carry out the work properly after all or will credit the principal for a proportionate part of the contract sum.
- 14.4. If the contractor chooses to carry out the work properly after all, it will determine the manner and time of the carrying out thereof. In all cases, the principal must give the contractor the opportunity to do so. If the agreed work consisted of – among other things – the processing of materials supplied by the principal, the principal must supply new materials at its own expense and risk.
- 14.5. The principal must send any parts or materials that are to be repaired or replaced by the contractor to the contractor.
- 14.6. Unless expressly agreed otherwise with the contractor, the following will be at the principal's expense:
 - a. any transport or shipping costs and import duties;
 - b. any disassembly and assembly costs;
 - c. travel and accommodation expenses and travel hours.
- 14.7. The contractor is only obliged to comply with the guarantee after the principal has complied with all its obligations.
- 14.8. a. The guarantee does not apply to defects resulting from:
 - normal wear and tear;
 - improper use;
 - maintenance not being performed, or being performed incorrectly;
 - installation, assembly, alterations or repairs carried out by the principal or third parties;
 - defects to or unsuitability of items originating from or prescribed by the principal;
 - defects in or unsuitability of materials or auxiliary materials used by the principal;b. No guarantee is provided with regard to:
 - delivered items that were not new at the time of delivery;
 - inspection and repairs of the principal's items;
 - parts with regard to which a manufacturer's warranty applies.

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- 17.8. If payment is not made in due time, the principal will be obliged to compensate the contractor for any extrajudicial costs incurred by it, with a minimum of € 75.00.

These costs will be calculated on the basis of the following table (principal sum including interest):

on the first € 3,000.00	15%
on any excess amount up to € 6,000.00	10%
on any excess amount up to € 15,000.00	8%
on any excess amount up to € 20,000.00	5%
on any excess amount over € 20,000.00	3%

If these exceed the calculation above, the extrajudicial costs actually incurred will be owed.

- 17.9. If, in legal proceedings, the court finds in favour of the contractor, whether in full or in part, any costs incurred by the contractor in connection with these proceedings will be at the principal's expense.

Subject to the principal providing proof to the contrary, the duration of the extension of the delivery period or performance period will be presumed to be necessary and to be the result of a situation as referred to under a, through c. above.

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