Ansökan om stöd

1.1 Allmänna uppgifter

Namn: Maskin investering Holma Helsinglands AB
Ansökansid: 819436
Ärendeid: 20377750

Erbjudande: Stora investeringar kostnader max 25 miljoner kronor
Sista ansökningsdag: 2049-12-31
Ansvarig organisation: Region Gävleborg

1.2 Stödsökande

Namn: Holma-Helsinglands AB
LINVÄGEN 8
824 60 FORSA
Sverige

Org.Nr: 556689-5875

Arbetsställe

Namn:
Postadress:
LINVÄGEN 8
824 60 FORSA

Arb.ställenr.: 10125128
Besöksadress:
LINVÄGEN 8
824 60 FORSA

1.3 Ansökansuppgifter

Rubrik på din ansökan
Maskin investering Holma Helsinglands AB

Offentliggörande av stöd enligt EU:s statsstödsregler
Jag samtycker till att uppgifter om det stöd som företaget beviljas och grundläggande information om företaget offentliggörs.

Vilken bransch ska du investera inom?
13100 / Garntillverkning

Vad ska du investera i?
Ansökan om stöd till investering i modern maskinutrustning
hållbar tillväxt, sysselsättning och konkurrenskraft i Region Gävleborg
Bakgrund
Vi bedriver industriell produktion i Region Gävleborg med en maskinpark om cirka 20 maskiner som används dagligen. Maskinerna är till största delen tillverkade mellan 1961 och 1984. Vår bedömning är att den tekniska livslängden för dessa maskiner är uppnådd. Driftstörningar är frekventa och tillgången på reservdelar är i flera fall mycket begränsad eller obefintlig. Styrsystemen baseras dessutom på föråldrad programvara som inte längre är kompatibel med moderna IT-miljöer. Detta begränsar produktivitet, driftsäkerhet och utvecklingsmöjligheter och utgör ett tydligt hinder för fortsatt tillväxt.
Syfte med investeringen
Syftet med investeringen är att ersätta delar av befintlig maskinpark med modern, energieffektiv och digitalt anpassad maskinutrustning. Investeringen är en förutsättning för att kunna ta produktionen in i ett modernt industriellt sammanhang, stärka konkurrenskraften och säkerställa fortsatt produktion i Region Gävleborg.
Vi verkar på en internationell marknad med hård konkurrens från bland annat Östeuropa och Asien. För att kunna konkurrera med produktion kvar i Sverige krävs hög effektivitet, stabil kvalitet och modern teknik.
Tillväxt, sysselsättning och regional nytta
Verksamheten befinner sig i en tydlig tillväxtfas. Under de senaste åren har vi ökat personalstyrkan från 8 till 14 anställda, vilket visar på en redan pågående positiv utveckling i regionen.
Den planerade maskininvesteringen bedöms möjliggöra:
införande av ytterligare skift

ökad produktionsvolym och leveranskapacitet
skapande av ytterligare 8 nya arbetstillfällen

Sammantaget innebär detta att investeringen direkt bidrar till ökad sysselsättning, stärkt näringsliv och långsiktig industriell närvaro i Region Gävleborg. Vårt uttalade femårsmål är att nå en omsättning om cirka 40 miljoner kronor.

Hållbarhet och energieffektivisering

Vi har påbörjat en aktiv omställning där vi successivt bygger bort vår oljeförbrukning. Nya maskiner innebär:

väsentligt lägre energiförbrukning
högre energieffektivitet
minskat spill och förbättrat resursutnyttjande

Investeringen bidrar därmed till Region Gävleborgs mål om klimatomställning och en mer hållbar industri.

Attraktivitet och kompetensförsörjning

För att långsiktigt kunna attrahera studenter, designers och ny kompetens till Region Gävleborg krävs en modern och attraktiv industrimiljö. En uppdaterad maskinpark är avgörande för att kunna erbjuda en relevant, framtidsinriktad och konkurrenskraftig arbetsplats.

Genom investeringen stärker vi regionens attraktionskraft för både befintlig och framtida arbetskraft samt möjliggör samverkan med utbildningar och kreativa näringar.

Sammanfattande bedömning

Investeringen i ny maskinutrustning är avgörande för att:

säkra och utveckla industriell produktion i Region Gävleborg
skapa 8 nya arbetstillfällen utöver redan genomförd personalökning
bidra till hållbar omställning och energieffektivisering
stärka regional konkurrenskraft och långsiktig tillväxt

Med stöd från Region Gävleborg kan vi ta nästa steg i vår utveckling och fortsätta bygga en världsledande verksamhet med rötter i linet lokaliserad, förankrad och växande i Gävleborg.

I vilken kommun ska investeringen göras? Valda kommuner
Hudiksvall

Under vilken tidsperiod kommer investeringen att pågå?
2026-01-31

Till och med
2026-11-30

Hur många kommer företaget att anställa som en följd av investeringen?

Kvinnor
6

Män
2

Kommentar

Är företagets underleverantörer hållbara?
Ja

Kommentar

Vilka är företagets konkurrenter och var finns de?
När vi investerar i nya maskiner så kommer vår produktion in i rätt årtionde och vi blir konkurrenskraftiga då vi konkurrerar med östländer och China.

Vi är sedan 100 år kända på marknaden för att ha den absolut högsta kvalitén och det vill vi fortsättningsvis också var, då behöver vi investera i nya maskiner som drar mindre energi och är supereffektiva.

Har ni omlokaliserat eller ska ni omlokalisera verksamhet?

Nej

Kommentar

Finns nödvändiga tillstånd för investeringen?
Ja, ange vilka.

Kommentar
Miljötillstånd, verksamhetstillstånd och byggnaderna är anpassade till verksamheten

Beskriv kort företagets verksamhet
Vi har idag ett 20 tal maskiner i vår produktion som vi använder dagligen.
Dessa maskiner är i ett spann av årsmodeller från 19611984, vi bedömer att den tekniska livslängden är slut samt det är stora problem eller omöjligt att hitta reservdelar.

Vi har även problem att köra den programvara som styrbefintliga maskiner, då den har så gammalt format.

Har ditt företag miljömål?
Ja

Kommentar

Har ditt företags verksamhet bedrivits tidigare under ett annat organisationsnummer?
Nej

Kommentar

Vilka villkor har företaget för de anställda?
Vi har kollektivavtal

Kommentar

Har ditt företag personalmål?
Ja

Kommentar

Varför bedriver ni verksamhet just här, på den här orten?
Vi är gamla i branschen och vill vara i topp, om vi skall attrahera studenter och designers till Hälsingland och vår fabrik måste vi också vara en attraktiv fabrik att komma till då duger det inte med maskiner från 1961, då gör man praktiken i ett annat land.

Vi vill luta oss framåt och bli absolut världsledande, med ursprung från linet vi har sedan 1898 funnits på denna plats

Vilka av de globala målen i Agenda 2030 förväntas er verksamhet bidra till?
5. Jämställdhet

Hur bidrar ni till ökad jämställdhet?
Vi jobbar hårt med rekrytering, vi vill framförallt anställa kvinnor samt nyinkomna till Sverige och attrahera dom att flytta till Hudiksvall

Ska du köpa från närstående företag eller säljare med anknytning till företaget?
Nej

Kommentar

Har företaget något utestående återbetalningskrav på tidigare beviljat stöd?
Nej

Kommentar

Varför behövs finansiellt stöd för denna investering?
Vi söker stöd från Region Gävleborg för att komplettera vår egen finansiering och eventuella banklån. Även om företaget har möjlighet att investera med eget kapital och lån, är bidraget avgörande för att:

Minska finansiell risk: Investeringen i modern maskinutrustning är omfattande och kräver stora kapitalinsatser. Ett bidrag minskar den ekonomiska belastningen och möjliggör en mer stabil finansiell situation under investeringens genomförande.

Främja hållbarhet och innovation: Bidraget gör det möjligt att prioritera energieffektiva och digitalt avancerade maskiner som annars skulle vara dyrare att implementera. Detta stärker vår förmåga att bidra till regionens klimatomställning och innovationsmål.

Stärka regional nytta: Genom att delvis finansiera investeringen med regionalt stöd kan vi snabbare skapa nya arbetstillfällen, öka produktionskapacitet och säkerställa långsiktig industriell närvaro i Gävleborg.

Säkerställa långsiktig konkurrenskraft: Bidraget möjliggör investeringar som annars skulle kräva längre återbetalningstid eller större lån, vilket kan begränsa resurser för utveckling, kompetensförsörjning och internationell konkurrenskraft.

Sammanfattningsvis ger ett bidrag oss möjlighet att genomföra investeringar som inte bara stärker vårt företag, utan också regionens industriella konkurrenskraft, sysselsättning och hållbara utveckling.

Avser företaget att finansiera investeringen genom finansiell leasing?
Nej

Kommentar

Ingår kostnader för finansiell leasing?
Nej

Kommentar

Ska företaget investera i en byggnad företaget hyr?
Nej

Kommentar

Hur ser företagets ägarförhållanden ut?

Ägare	Organisationsnummer/Personnummer	Ägarandel
Stenarö AB	559100-0046	25
PGE i Hudiksvall AB	556088-5484	25
Respin AB	559243-8419	45
Saiboo AB	556808-7885	5

Kontaktlista

Namn	Roll	Telefon	Mobiltelefon	E-postadress
Pär	VD	-	0702247912	par@holma.se

Eriksson

1.4 Kontaktpersoner

Namn:	Pär Eriksson
Organisation:	
Telefonnummer:	
Mobiltelefonnummer:	0702247912
E-postadress:	par@holma.se
Roll:	VD

1.5 Budget

Kostnader

Kostnadsslag	Total
Maskiner och inventarier: Hankfärgare Thiesen	1 518 000
Maskiner och inventarier: Styrsystem färgare Setex	1 199 902
Maskiner och inventarier: El ång panna (375 kw) Pannpartner	1 276 300
Maskiner och inventarier: Labb tvister Mesdan	219 000
Maskiner och inventarier: Gar nystan tillverkare Campanini	605 000
Maskiner och inventarier: Labb färgare (endast natur mtrl) Mesdan	181 368
Maskiner och inventarier: Labbfärgare Thiesen	1 038 719
Maskiner och inventarier: Lösullsfärgare (inkl korgar) Thiesen	2 296 173
Maskiner och inventarier: Styrsystem Reningsverk TWS	250 000
Maskiner och inventarier: Tork (IR) Stalam	1 045 000

Kostnadsslag	Total
Summa kostnader	**9 629 462**

Finansiering

Finansiär	Total
Banklån: Finansiering (banklån) 65%	6 259 150
Summa medfinansiering	**6 259 150**

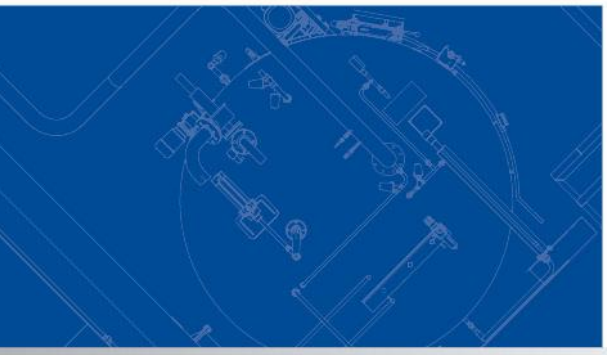
1.6 Dokument

Filnamn: PRICE LIST 2025 - BALLING MACHINES.pdf
Beskrivning:
Uppladdningsdatum: 2025-12-16
Filnamn: E30696.pdf
Beskrivning:
Uppladdningsdatum: 2025-12-16
Filnamn: E30732.pdf
Beskrivning:
Uppladdningsdatum: 2025-12-16
Filnamn: Labfärgare.pdf
Beskrivning:
Uppladdningsdatum: 2025-12-16
Filnamn: Holma_OT_MC_E390_251216.pdf
Beskrivning:
Uppladdningsdatum: 2025-12-16
Filnamn: hankMaster_2024_DE_EN_FR datablad.pdf
Beskrivning:
Uppladdningsdatum: 2025-12-16
Filnamn: Hankpris117016441-1.pdf
Beskrivning:
Uppladdningsdatum: 2025-12-16
Filnamn: 65 kg å labbmaskin.pdf
Beskrivning:
Uppladdningsdatum: 2025-12-16
Filnamn: _new_comp.pdf
Beskrivning:
Uppladdningsdatum: 2025-12-16
Filnamn: Sammanställning Holma Helsinglands Regionen.xlsx
Beskrivning: Sammanställning Maskininvestering
Uppladdningsdatum: 2025-12-16
Filnamn: Catalogo-Stalam_textile-2019-1.pdf
Beskrivning:
Uppladdningsdatum: 2025-12-16
Filnamn: Loading.pdf
Beskrivning:
Uppladdningsdatum: 2025-12-16
Filnamn: Originalansökan
Beskrivning: Inkommen originalansökan - Maskinläsbart format
Uppladdningsdatum: 2025-12-18
Filnamn: Signeringsinformation
Beskrivning: Ansökan
Uppladdningsdatum: 2025-12-18

Maskininvesteringar Holma-Helsinglands AB - 2026

Maskiner	Tillverkare	Euro	SEK
Labbfärgare	Thiesen	94 429 €	1 038 719 kr
Lösullsfärgare (inkl korgar)	Thiesen	208 743 €	2 296 173 kr
Hankfärgare	Thiesen	138 000 €	1 518 000 kr
El ång panna (375 kw)	Pannpartner	116 027 €	1 276 300 kr
Labb tvister	Mesdan	19 987 €	219 000 kr
Tork (IR)	Stalam	95 000 €	1 045 000 kr
Labb färgare (endast natur mtrl)	Mesdan	16 488 €	181 368 kr
Gar nystan tillverkare	Campanini	55 000 €	605 000 kr
Styrsystem färgare	Setex	109 082 €	1 199 902 kr
Styrsystem Reningsverk	TWS		250 000 kr
		852 756 €	**9 629 462 kr**

Parametrar	
Euro kurs	11



QUOTATION

Holma Helsingland AB

Lundvägen 47 A
SE - 82065 Forsa
Sweden

TEXTILMASCHINEN
www.thiestextilmaschinen.de

Holma Helsingland AB
Lundvägen 47 A
SE - 82065 Forsa
Sweden

Our Ref: vk-bg
Date: 04.11.2025
Customer No.: 110104998

QUOTATION NO. 117016851/CH/CX

Thanking you for your enquiry we are pleased to submit our estimate as per attached General Terms and Conditions of Sale and Delivery, as follows:

2	eco-bloc X 800 - Yarn Dyeing Machine	65 kg
1	KF-Packing Cage 800	50 kg
1	eco-bloc quattro 1/210/1 - Yarn Dyeing Machine	1 kg

Scope and performance as per the attached specification.

Contract Price:

Our prices apply to shipment FCA (Free Carrier) from the delivery plant in Coesfeld (Incoterms® 2020).

Our offer is subject to confirmation and non-binding and shall only be deemed to be agreed upon receipt of our written order confirmation or upon delivery of the goods (conclusion of contract, cf. § 2 (1) and (2) SALES TERMS).

Our prices are quoted in EUR, without VAT-charges.
In case of order we would kindly ask you to state your applicable tax ID-number. When missing this VAT-number we would be legally obliged to issue invoices including VAT.

Payment:

30 % down payment, on order
70 % in consecutive monthly installments prior to delivery, with the first installment due 30 days after the first payment

Bank data:

	IBAN	SWIFT-Code
Commerzbank AG, Münster	DE 09 4004 0028 0322 7808 00	COBA DE FF XXX
Volksbank Westmünsterland eG, Coesfeld	DE 32 4286 1387 5102 0036 00	GENO DE DD XXX
Sparkasse Westmünsterland, Coesfeld	DE 33 4015 4530 0035 0733 03	WELA DE 3 W XXX
UniCredit Bank AG, Bielefeld	DE 17 4802 0086 0003 1088 80	HYVE DE MM 344
Deutsche Bank AG, Münster	DE 90 4007 0080 0248 4111 00	DEUT DE 3B 400

A payment is deemed to be properly fulfilled once it has been credited to one of our bank accounts.

Bank charges and fees of any kind arising in the Buyer's country will be paid by the Buyer. Bank

charges and fees payable to a bank in the Seller's country will in principle be paid by the Seller.

Delivery:

The delivery time will be defined later, taking into account the current situation of the supply chains when placing the order.

Please find attached our Terms and Conditions with respect to:

- Specification of the purchase object incl. total price
- Performance Data
  Please check the correctness of the Performance Data since they are significant for the accurate design of the plant. Performance Data differing from Thies-Standard might require technical modification regarding the equipment of the machines and/or accessories. Unless otherwise agreed, additional costs arising due to these modifications are not included in our prices.
- Regulations on the dye house water quality (criteria and permissible concentration)
  Because of the obvious corrosion problem, we point out in particular that exclusively Glauber salt (sodium sulfate) is to be used as permitted operating and production medium, not Common salt (sodium chloride) (§ 11 (2) Sales Terms).
- Performance Parameters
- Current Charges for Technicians and Fitters
- General Conditions of Installation and Commissioning
- General Terms and Conditions of Sale and Delivery

Modifications in construction or in form, weight changes, deviations of color, and alterations of the scope of delivery, on the side of the Seller are reserved during the delivery period, provided such alterations or deviations are reasonably acceptable to the Buyer in consideration of the Seller`s interests (§ 5 (11) Sales Terms).

We hope that our quotation meets your expectations.

Yours faithfully,

T H I E S GmbH & Co. KG

i.A. Hermann Freericks

In case you have any queries concerning our offer or execution of your order, please find below the contact names and addresses/ tel-no. for the person in charge:

	Name	Tel-No.	E mail
Local agent:	Kirsebom & Hurum A/S	+47 23 39 66 01	kari@kirsebom-hurum.no
Area sales manager:	Hermann Freericks	+49 163 685 4853	h.freericks@thies.group
Sales support:	Monika Büning	+49 2541 733-282	m.buening@thies.group
Shipping dept:	Barbara Riering	+49 2541 733-405	shipping@thies.group
Technical service/ Spare parts:	Olaf Wevers	+49 2541 733-376	service@thies.group

Summary

2 eco-bloc X 800 (65 kg)

2 eco-bloc X 800 - Yarn Dyeing Machine

Diameter of dyeing kier:	800 mm
Carrier length:	approx. 1173 mm
Nominal capacity:	approx. 65 kg CO
Operating temperature:	up to 140°C

All parts coming into contact with the processing liquor are manufactured from stainless steel (material 1.4571/1.4404), forged parts material 1.4401, cast steel parts material 1.4408.

- Closed dyeing kier with rapid locking device
- Accommodation and fixing device for material carriers
- Compressed air inlet/outlet
- Kier pressure monitoring
- Rinse valve
- Safety valve
- Liquor reversal for changing the liquor flow direction (inside/outside our outside/inside)
- Circulation pump with motor
- Heat exchanger
- Heating and cooling valves with continuously regulating proportional valve
- Piston control valves, stainless steel condensate/cooling water outlet
- Analog level for dyeing kier
- Water inlet
- Drain valve
- Pneumatic unit
- Spare parts (wear and tear)

	EURO
Basic equipment	87.162,00
Additional equipment:	
Drip ring for dyeing kier	942,00
FLOWtronic - Electronic flow rate measuring and control system for dye liquor	1.711,00
2nd Water inlet	1.136,00
Water meter MID	3.234,00
HT-draining	418,00
Extraction with compressed air	447,00
Addition tank with analog dosing, liquor sampling pipe, heating coil, stirrer and pressure pump	14.396,00
Salt dissolving device for addition tank	269,00
100% Stock tank	9.509,00
Heating coil with valve and stirrer at the stock tank	7.223,00
Drip ring for 100% stock tank	942,00
Electronic control T 390 incl.: - Industrial PC THIES T 390 incl. Embedded Linux 12" XGA Multitouch Display Interfaces Ethernet, OPC UA - Control cabinet with power unit - Batch parameters - Temperature Manager (only possible with stock tank + 2 water valves) - Differential pressure measurement - Drainage by use of compressed air or pump	25.275,00
Frequency inverter for pump motor	1.627,00
Approval (DGRL)	
Total price for 1 machine:	**154.291,00**
Total price for 2 machines:	**308.582,00**

4 Material Carrier "Vertical System" 800
with 13 welded-in triangular spindles D= 30 mm x 826 mm
for the accommodation of 3,4,5 packages per spindle.
Rapid locking devices with step plates
Special spacers for extended thread
2 Slip-over pipe spindle(s) per spindle for each 1 package
Capacity/ carrier:

Approx. 65 kg = 65 conical packages on conical tubes

Material:	CO
Tube dimensions :	33/65x170 mm
Winding density :	330 g/l
Winding diameter:	180 mm
Traverse:	150 mm
Package weight:	1000 g

	EURO
1 Material Carrier Vertical System 800	**13.613,00**
Total price for 1 material carrier:	**13.613,00**
Total price for 4 material carriers:	**54.452,00**

1 KF-Packing Cage 800 (50 kg)

1 KF-Packing Cage 800

Diameter of central pipe:	270	mm
Diameter of packing cage:	750	mm
Packing height	700	mm
Content:	269	Ltr.
Capacity:	50	kg
at a density of:	185	g/ltr.
(depending on type of fibre)		

	EURO
1 KF-Packing Cage 800	21.197,00
Total price for 1 packing cage:	**21.197,00**
1 Lifting plate with chains	2.880,00
1 Lifting star with chains	3.258,00
1 Pneumatic holding device	6.941,00
Total price:	**13.079,00**

1 eco-bloc quattro 1/210/1 (1 kg)

1 eco-bloc quattro 1/210/1 - Yarn Dyeing Machine

Diameter of dyeing kier:		210	mm
Carrier length:	approx.	335	mm
Nominal capacity:	approx.	1	kg, CO
Operating temperature:	up to	140	°C

All parts coming into contact with the processing liquor are manufactured from stainless steel (material 1.4571/1.4404), forged parts material 1.4401, cast steel parts material 1.4408.

- Closed dyeing kier with rapid locking device
- Accommodation and fixing device for material carriers
- Compressed air inlet/outlet
- Kier pressure monitoring
- Rinse valve
- Safety valve
- Reversible circulation pump including frequency controlled motor
- Heat exchanger installed inside the circulation system
- Heating and cooling valves with on/off regulation
- Piston control valves in stainless steel for condensate- and cooling water outlet
- Analog level for dyeing kier
- Water inlet
- Drain valve
- Pneumatic unit
- Spare parts (wear and tear)

	EURO
Basic equipment	45.751,00
Additional equipment:	
FLOWtronic - Electronic flow rate measuring and control system for dye liquor	1.688,00
2nd Water inlet	661,00
Water meter MID	2.602,00
HT-draining	478,00
Extraction with compressed air	515,00
Addition tank with analog dosing and pressure pump	6.914,00
Salt dissolving device incl. stirrer and heating coil	2.998,00
100% Stock tank	3.767,00
Heating coil with valve and stirrer at the stock tank	2.803,00
Electronic control T 390 incl.: - Industrial PC THIES T 390 incl. Embedded Linux 12" XGA Multitouch Display Interfaces Ethernet, OPC UA - Control cabinet with power unit - Batch parameters - Temperature Manager (only possible with stock tank + 2 water valves) - Differential pressure measurement - Drainage by use of compressed air or pump	22.234,00
Frequency inverter for pump motor	1.145,00
Packing cage 210 l	2.873,00
Approval (DGRL)	
Control cabinet in stainless steel	
Total price for 1 machine:	**94.429,00**

1 x Spindle Insert "Vertical System" 210
with 1 insertable triangular spindle 30 mm Ø x 170 mm
for the accommodation of 1 packages per spindle.
Rapid locking devices with step plates
Special spacers for extended thread
Capacity/ carrier:

Approx. 1 kg = 1 conical packages on conical tubes

Material:	CO
Tube dimensions :	33/65x170 mm
Winding density :	330 g/l
Winding diameter:	180 mm
Traverse:	150 mm
Package weight:	1000 g

	EURO
1 Spindle Insert Vertical System 210	**1.953,00**
Total price for 1 material carrier:	**1.953,00**

Performance data:

Thies systems are laid out by standard for the following performance values:

		Customer values	Standard performance values (THIES)				
Operating voltage			400 Volt (DIN EN 50160), TN-network				3 phases
Frequency			50 Hz				
Control voltage			230 VAC / 24 DC				
Steam			5 – 8 bar overpressure, saturated steam				
Condensate			< 1,5 bar				
Cooling water			2 - 4 bar				15 – 18 °C
Process water 1			2 - 4 bar;	75 °C	max.		
Process water 2 *)			2 - 4 bar;	75 °C	max.		
Process water 3 *)			2 - 4 bar;	75 °C	max.		
Outlet 1	☐ open	☐ closed	Effluent	< 50 °C	line closed and pressure-less		
Outlet 2 *)	☐ open	☐ closed	Effluent	< 92 °C	line closed counter-pressure < 0.2 bar		
Outlet 3 *)	☐ open	☐ closed	Effluent	< 140 °C	line closed counter-pressure < 0.2 bar		
Pressurized air			6 - 8 bar; according to ISO 8573-1:2010 [1:4:1]				
Control air			6 - 8 bar; according to ISO 8573-1:2010 [1:4:1]				
Installation height			up to 1,000 m above sea level				
Climatic conditions for electrical equipment:							
Humidity			at	20 °C	30 °C	40 °C	50 °C
			max.	80 %	65 %	50 %	35 %
Room temperature			max.	35 °C			
Cooling water for climate conditioning units			max.	30 °C			

*) *Strike out if not applicable*

The following conditions must be ensured by the buyer:

- The maximum individual operating pressures and temperatures of the system components must not be exceeded.
- For the operation of the system, an uninterrupted, sufficient energy supply is required.
- The wastewater system must be dimensioned appropriately for the machine sizes to be connected and it must be equipped with a free drain.
- For pressurized high-temperature systems, pressurized air outlet lines must be installed according to the locally valid noise protection regulations.

Please check and confirm the correctness of the operating data, as it is decisive for the correct layout of the systems.

.....

We acknowledge the information provided above.
We have taken note of the requirements for the water quality in the dye house as described below.

(Date) (Signature Buyer)

07/2025

Water quality in the dye house

Optimal production conditions in the dye house require a steady water quality.

The processes water used for the direct dyeing and for indirect processes (cooling, etc.) should meet the following criteria.

Dye			colorless
Odor			odor-free
pH value			neutral pH 7-8
Water hardness	<	5	°dH (6.25°e; 8.95°fH; 89 USA)

Permissible concentration

Settleable solids	<	1	mg/l
Filterable solids	<	50	mg/l
Organic load	<	20	mg/l ($KMnO_4$ absorption)
Evaporation residues	<	500	mg/l
Iron (Fe)	<	0.1	mg/l
Manganese (Mn)	<	0.02	mg/l
Copper (Cu)	<	0.005	mg/l
Nitrate (NO_3^{1-})	<	50	mg/l
Nitrite (NO_2^{1-})	<	5	mg/l
Chloride	<	200	mg/l

The water should be free from carbon dioxide (CO_2) in order to avoid corrosion.

Mechanical problems or problems in terms of application engineering, which are due to an inadequate water quality, are excluded from our liability.

11/2017

Performance Data

The company Thies is referred to hereinafter as **Seller** and the customer as **Buyer** regardless of their legal form.

Scope of Delivery

The scope of delivery includes all parts and components, e.g. steam, water, pressure lines according to Seller's standard product design or according to a layout approved by Buyer.
All supply and disposal units beyond the scope of delivery, as well as all foundations and other masonry work shall be provided by Buyer.

Standards and Safety Regulations

Unless stated otherwise in the order confirmation, Seller manufactures machines, assemblies and components in accordance with the legal and regulatory requirements that are applicable in Germany, e.g. according to the national implementing laws and ordinance of Directive 2014/68/EU (Pressure Equipment Directive), Directive 2006/42/EC (Machine Directive) and Directive 2014/30/EU (EMC Directive).

Should additional country-specific regulations and standards apply at the setup site, which must be considered in the design of machines, assemblies or components, Seller must be informed of them in writing before the order is placed.

Machines that are delivered partly assembled will be regarded as ready for use only upon complete assembly. If the delivered machines are set up ready for use by Buyer itself within the area of application of the Machine Directive, Seller shall issue a declaration of conformity for them and apply a CE-mark on the machine. If incomplete machines are delivered, Seller shall issue an "Installation declaration for incomplete machines" in accordance with the Machine Directive.

If Seller's scope of delivery is to be combined with further machines that are provided by Buyer (hereinafter "Complete System"), Buyer shall be obligated to check whether safety equipment beyond Seller's scope of delivery is required, in order to comply with regulations and provisions for the Complete System. It is the Buyer's responsibility to provide such safety equipment for the commissioning or to order it on time in addition from Seller if necessary. Seller furthermore points out the requirement within the area of application of the Machine Directive of a general operating instruction taking an overall risk assessment into account in that case, as well as the requirement that the machines provided by Buyer must comply with the regulations of the Machine Directive. Buyer is responsible for the observation and implementation of these requirements.

Should Seller undertake in writing to issue a declaration of conformity (according to the Machine Directive) for a Complete System that exceeds its scope of delivery, it shall make this commitment exclusively subject to the condition that Buyer issues and hands over to Seller a declaration of conformity for all machines provided by it within due time beforehand and that it appends a CE-mark on these machines, or issues and hands over an installation declaration on time to Seller for all provided incomplete machines. In case Buyer fails to do so, Seller shall not issue a declaration of conformity for the Complete System and exclusively take the machines that it has itself delivered into operation, and reject any responsibility if Buyer itself takes the provided machines into operation contrary to the regulations of the Machine Directive.

Assembly and Commissioning

Seller shall provide specialized personnel, e.g. assemblers, technicians or engineers for the assembly and commissioning of the scope of delivery as well as for the training of Buyer's personnel. For these services, Seller shall charge the costs incurred for travel to and from the site at the currently valid rates according to the attached list. Buyer shall provide assisting personnel for Seller's specialized personnel on request.

Seller's specialized personnel shall be responsible for the fault-free complete installation of the scope of delivery.

If assembly and commissioning is conducted by Buyer in its own responsibility, Seller shall not accept any warranty and/or extend any guarantee for any resulting claims of defects or subsequent deliveries.

If requested, Seller's specialized personnel can assist in the commissioning. For commissioning, Buyer shall provide sufficient quantities of test material. Seller shall not be liable for any deficient results in terms of textile engineering during the commissioning of the scope of delivery and its calibration phase.

Seller shall make standard recipes available for testing purposes. In addition, Seller can provide an application technician for advice on the usual conditions in the case of problems with textiles or dye.

Approval of Pressure Devices

The pressure devices to be delivered by Seller that require an acceptance shall be approved by a certified testing body. Documents of the completed approval shall be provided to Buyer. The costs for these are included in the scope of delivery.

The scope of services neither includes any additional expenses for a possible approval of assemblies of pressure equipment installed at the installation site in accordance with the PED with CE certification by a notified body. Nor does it include the inspection before commissioning of the delivered machine and/or pressure equipment by an approved inspection body in accordance with country-specific requirements.

Seller's plants are laid out according to the standard data of the performance values (THIES) specified on the performance datasheet.

Additional Rule on Acceptance of Pressure Devices in Deliveries to Non-EU Countries

To be able to take requirements deviating from the aforementioned standards and safety regulations into account, Seller shall make all necessary drawings and data relating to the pressure devices that require acceptance available to the competent entities for presentation and preliminary approval.
If significant design changes result in the process, Seller reserves charging the costs arising for this to Buyer.

Delivery in Accordance with the Contract

Within its responsibility for delivery in accordance with the contract, Seller warrants the fault-free functioning of the scope of delivery, in particular the even imbuing or bleaching. It is required that first-class raw materials, dyes, chemicals that meet the European standard and water in the defined water quality will be used.

Check the equipment regularly for signs of corrosion!

A risk of corrosion is caused by the use of

– chloride ions (Cl^-), e.g. common salt (NaCl) or other products containing chloride;
– chlorine dioxide ions ($ClO2^-$), e.g. sodium chloride (NaClO2).

Chloride ions (Cl^-) in the cooling and process water can likewise lead to corrosion.

Use of these products is at your own risk.

The treatment bath becomes increasingly aggressive

– with rising chloride concentration,
– with rising temperature,
– with decreasing pH value,
– with the length of treatment time

Regarding the evident corrosion problems, we expressly point out that exclusively Glauber salt (sodium sulfate, Na2SO4) may be used and not cooking salt (sodium chloride, NaCl).

Seller's General Terms of Sale and Delivery apply in respect of the fault-free workmanship of the machines. The obligation for the delivery in accordance with the contract and according to the attached General Terms of Sale and Delivery is based on the condition that the scope of delivery can be assembled and taken into operation by Seller's specialized personnel without great delays upon arrival at the setup site. In the case the scope of delivery is stored, Buyer shall be responsible for any damages caused by improper storage.

Information on Material Carrier Systems

The prerequisite for a successful, reproducible yarn dyeing or drying is that even densities and weights as well as dimensions of the textile material are processed.

In case there are material carriers (external carriers), even distribution of the air and treatment liquid must be ensured. Any greater loss of pressure that impairs the even treatment of coils must be prevented.

Furthermore, the textile material must be sealed off within the carrier system according to the shape of its layout, so that the air and liquid circulate exclusively through the material to be treated.

The use of plastic sleeves requires elastic closures, the effect of which is not cancelled out by the pump pressure/differential pressure. Winding coils that are dyed or dried must have a high-quality, even winding density of max. ± 3%. It is avoided this way that leaks are caused by the lowering of the coil columns during the dyeing/drying processes.

If strongly shrinking yarns are used, it is recommended to use radially elastic dyeing tubes to prevent an uneven compression of the yarn layers.

If strongly expanding yarns are used (e.g. acrylic), Seller recommends using star or top plates to limit the yarn expansion. An optimal coiling can reduce the yarn expansion. The yarn expansion in radial or axial direction must not exceed 2.5%, as quality will be lost otherwise.

Notes on Pressurized Driers

Within the scope of its obligation for the delivery in accordance with the contract, Seller warrants the fault-free functioning of the assembly and an even drying result. However, this requires correct maintenance, correct preparation of the items to be dried and suitable material carriers. The bleaching/dyeing tubes must withstand the temperatures and pressures used in the drier without suffering deformations and they must also permit the correct sealing from each other as well as from the material carriers.

Deviations in the coil winding and in the coil diameter must not exceed or fall below max. 2.5%. The maximum winding diameter of a coil must not exceed 250 mm.

For an even residual moisture distribution in the dried coils, we recommend a levelling phase of at least three hours during which time the material carrier rests in normal ambient temperature after the completed drying process.

Our information on drying times and consumption data refers to rinsed lots that are not scrooped. Uneven winding forms, dyeing auxiliaries, scrooping agents, paraffins and naphthol dyes can have a negative effect on the performance of the drier. To avoid dye migrations, use suitable dyes and auxiliaries with fastness properties that are suitable for use in the drier.

Setup Information for Control Units

The power switch cabinet must be positioned near the machine. Power lines with a length of up to 10 m are included in our delivery.

The climatic conditions listed in the attached operating datasheet must be given for the electrical equipment.

Software

The software provided to Buyer as part of the delivery and its documentation must be treated as confidential. The embodiment of the software and its documentation will remain the sole property of Seller. Seller grants simple use rights to Buyer. Buyer is not authorized to reproduce the software and/or its documentation or make it accessible or disseminate it to third parties.

In individual cases and according to Seller's sole discretion, an exception can be approved with Seller's written agreement.

Operation and Safety

The scope of delivery includes the operating manual, the receipt of which Buyer's responsible employees shall confirm to Seller's specialized personnel on assembly and/or commissioning.

The operating manual contains important information on

- safety,
- product description,
- transport and assembly,
- operation,
- maintenance.

To ensure the use of the scope of delivery for its intended purpose, it is Buyer's responsibility that it is operated by personnel who have familiarized with the content of the operating manual. Lack of knowledge or failure to adhere to the safety rules and operating instructions contained in the manuals can entail serious personal injury and/or property damages. Seller will not accept any liability in such cases.

For high-temperature machines that are pressurized, pressurized air outlet lines must be installed at the site according to the locally valid noise and emission protection regulations. All inlets and outlet lines including pipework conducting steam and hot water must be insulated. The insulation must be produced on site by Buyer.

Third Party Products

Products of other manufacturers, which are operated or integrated together with the machines or plants of Seller do not fall within Seller's liability. Buyer is responsible for all personal injuries and property damages that are caused by the operation and/or malfunction of such products and/or control units.

09/2024

Holma Helsingland AB
Lundvägen 47 A
SE - 82065 Forsa

Sweden

Installation -
Confirmation of Order
Quotation

Customer No.: **110104998**
Order No.:
Place of installation: **Sweden**

YOUR REFERENCE	OUR REFERENCE	DATE
	bg	04.11.2025

Dear Sirs,

We thank you for your order/enquiry. The following rates will be charged for the services of engineers and technicians according to the conditions stated.
The standard working time complies with the actual valid agreement of the metal industry. The following rates are based on the present standard wages and daily allowances. Any increase in these will be invoiced accordingly.

The rates being charged at present are:

1.	Technician per hour	EUR	**93,00**
	Engineer per hour	EUR	**115,00**
2.	Additional charges:		
	Overtime plus		50 %
	Work on Sunday plus		70 %
	Work on public holidays plus		100 %
	Night hour (8 p.m. - 6 a.m.) plus		50 %
	Working hours on 1st January, Easter Sunday, 1st May, Whit Sunday, 25th December, during the night of 24th to 25th December (5 p.m. - 6 a.m.) and during the night of 31st December to 1st January (5 p.m. - 6 a.m.)		150 %
3.	Allowance for technician per day/night	EUR	**206,00**
	Allowance for engineer/technician according to charges arising		
4.	Travelling expenses for flight, railway, luggage, visa, vaccination, insurance, etc.		
	Charges for the use of a car	EUR/km	**1,00**
5.	In tropical and sub-tropical regions the buyer will have to pay a monthly allowance of EUR 40,- for the usual tropical clothing required due to the climatic conditions on the site of installation.		

Yours faithfully
Thies GmbH & Co. KG

Signature of the buyer

PC 0315 /E

General Conditions of Installation and Commissioning

(Technical personnel = fitters, technicians and engineers)

At the Buyer's request the services of technicians and engineers, hereafter called 'technical personnel' will be made available by the Seller, whereby the Buyer expressly accepts the following terms and conditions.

1. Technical Personnel

This term applies to all skilled and/or graduated members of the Seller's technical staff, employed in the installation and/or commissioning of the machinery, the choice being left to the Seller's discretion.

2. Working hours, Wages, Daily Allowances and Travelling Expenses

a) Installation wages are charged for the hours actually worked. Both the daily and weekly working hours will be agreed upon between the Buyer's and the Seller's technical personnel. Principally they are based on the legally fixed, normal working time of the country where the installation/commissioning is carried out. Wherever they exceed the normal, usual and contractual working time of the Seller's country they will be charged as overtime.

b) Travelling hours on regular working days will be charged at the normal wage rate without any additional charge of the overtime. Travelling hours on Sundays and public holidays will be paid for by the Buyer at the additional rate stipulated. If the technical personnel starts working immediately after arrival from a journey, the travelling time exceeding 4 hours is considered as working time.

When travelling by car, the travelling time will be charged as working time.

The technical personnel has been advised to take a lodging, if possible in the surrounding area of the site, if the transportation time from and to the lodging takes more than one hour per day, the exceeding time will be charged for the technical personnel as working time. Any travelling expenses will be to the debit of the Buyer.

Any working hour or waiting hour (overtime) beyond the normal, standard working time will be subject to an additional charge. If upon the Buyer's request the technical personnel will have to work overtime, this will have to be agreed upon between the Seller and the technical personnel. There will be an additional charge for every hour worked on a Sunday, a public holiday or during the night. Public holiday to be paid for are those included in the union agreements being in force at time of installation/commissioning. The hourly wage rates are based on the presently applicable union pay scale. Any change in this will accordingly effect the hourly wage rates.

c) During the time of installation/commissioning including travelling days and waiting time, the Buyer will pay to the technical personnel an allowance which is due in advance weekly in full for boarding/lodging and additional expenses.

The allowance will also be paid for days without work, i.e. Sundays, public holidays, waiting time. For travelling days this allowance will be reduced 50% if travelling started after 12 a.m. or ended before 12 a.m.

If proof should be given by the technical personnel that the allowance is not sufficient an adequate rate will be agreed upon between the Buyer and the Seller. Allowance will also be charged and claimed in case of illness or accident causing absence from work, the duration of which being subject to an agreement between the Buyer and the Seller.

d) It is understood that the Buyer will pay the technical personnel's return fare to and from the erection site from the Seller's country, including cost of transportation of the technical personnel's tools, luggage and other additional expenses. The technical personnel is entitled, at the Buyer's expense, to travel home for the Easter, Whit Sun, Christmas and New Year holidays, in case of extended installation/commissioning working periods abroad the technical personnel is entitled to a home visit at three monthly intervals at the Buyer's expense.

e) In the event of a member of the technical personnel falling sick, the Buyer will arrange for the necessary medical assistance and, if necessary, for the transfer to an adequate and suitable hospital, at the same time informing the Seller or the Seller's agent accordingly. The Buyer will advance any ensuing medical and hospital expenses, which will be returned to him by the Seller on presentation of the corresponding bills.

3. Payment for Installation/Commissioning Work

a) The installation/commissioning work will be invoiced on its completion or at monthly intervals in case of extended and longer working periods.

b) The Buyer will confirm to the Seller's technical personnel in writing the completion of the installation/commissioning work and will also sign the technical personnel's weekly working reports.

4. Insurance, Taxes and Similar Dues

a) The Seller will pay all fees due for health insurance, trade associates and other insurance payable at the permanent residence of the Seller's technical personnel.

b) The Buyer will pay any taxes or other dues payable in this country for the wages, allowance, etc. of the Seller's technical personnel.

c) The allowances, etc. agreed upon will be paid by the Buyer to the Seller's technical personnel without any deductions. Any taxes and other dues payable in the Buyer's country on the payments to be made to the Seller's technical personnel will be to his debit.

d) In case the laws of the Buyer's country do not allow full payment of the amounts due the Seller or the technical personnel without any deductions, then these amounts will be increased accordingly to ensure that both the Seller and the technical personnel will receive the full net amounts, due to them, without any deductions.

5. Miscellaneous

a) The Buyer undertakes to assist the Seller's technical personnel in finding suitable accommodation.

b) The Buyer undertakes to make available and take care of in good time at his own expense and risk

1) Assistant labour and, if required, also bricklayers, carpenters, mechanics and other skilled labour sufficient in number to meet the supplier's or his personnel's requirements.

2) All earth moving, foundation, building and scaffolding work including the necessary materials.

3) Any tools, handling and lifting equipment, lightning, heating and energy up to the site as well as sundry auxiliary materials such as oil, timber, sealing and cleaning materials, coal and the like required for the installation and commissioning.

4) Lockable, weather-protected premises with adequate lightning for storing machine parts, materials, tools and clothes in the immediate surroundings of the site.

5) Adequate safety measures at the site to protect the personnel against accidents.

c) To ensure that the installation can be started and carried out without delay and interruption immediately after the personnel's arrival, all the equipment required for the erection including the machines supplied will have been transported by the Buyer into the fully completed and prepared premises. All preliminary work, especially foundations and service mains must have been completed.

d) In case the installation is delayed without the Supplier's fault, any costs resulting from waiting times and necessary additional travelling by the personnel will be to the Buyer's debit. The same if without the Supplier's fault the equipment supplied cannot be put into operation or used immediately after completion of the installation.

6. Test and inspection

It is Buyer's obligation and responsibility to have the installation of the equipment checked and tested immediately after its completion has been reported followed directly by a test run if the latter has been stipulated in the contract.

7. Supplier's liability

The Supplier is responsible, to the exclusion of any other claims, (especially in respect of damages) for the proper assembly of the goods and undertakes to eliminate any assembly faults disclosed and made known by the Buyer within six months after completion of the assembly work provided always that such faults can be proved to have been due to neglect on the part of the Supplier and his employees. The liability period for faults is shortened by two months if the daily operation time of the plant amounts to more than 8 hours.
The Supplier's liability does not cover:

a) any faults due to circumstances brought by the Buyer

b) any work beyond the scope of the Supplier's supplies and services carried out by the fitter at the Buyer's request

c) auxiliary labour not provided by the supplier

d) non-observance of operating instructions

8. Installation Times, Limits and Risks

a) Time limits in respect of the installation work given by the Supplier shall be considered binding only if such time limits have been expressly specified as such.

b) The Buyer assumes all risks in connection with the installation work.

9. General Conditions

Unless otherwise provided for in the "General Conditions of Installation and Commissioning", the mutual rights and obligations of the Buyer and the Supplier's "Standard Conditions of Sales and Delivery" are valid. The same applies to the place of jurisdiction and the law to be applied.

09/2017

General Terms and Conditions of Sale and Delivery

§ 1 General Stipulations, Scope

(1) These General Terms and Conditions of Sale and Delivery (referred to hereinafter as “Sales Terms”) apply exclusively. We do not acknowledge any General Terms of the ordering party or Buyer (referred to hereinafter as “Buyer”) that deviate from or are contrary to the following Sales Terms, unless we have explicitly given our written (section 126 German Civil Code) consent to their application.[1] These Sales Terms also apply if Thies GmbH & Co. KG (referred to hereinafter as “Seller“) renders performance with full knowledge of conflicting or different terms and conditions of Buyer without any reservation of rights.

(2) These Sales Terms shall only apply vis-à-vis companies, legal entities governed by public law and special-purpose public funds (public sector).

(3) Any individual stipulation concluded in individual cases with the Buyer (including subsidiary covenants and agreements, amendments and changes) shall always have priority over these Sales Terms. A written agreement or explicit written confirmation of the content of such agreements by the Seller shall be required.

(4) These Sales Terms also apply in their most recently included version as a framework agreement for future sales and/or deliveries to the same Buyer without the Seller having to make reference to such once again in every individual case.

(5) Declarations and notifications of legal importance that are to be issued by the Buyer to the Seller after signing of the Agreement (for example the setting of deadlines, notices of defect, declarations of revocation or reduction in price) must always be in writing to be effective.

(6) References to the application of statutory provisions shall only serve the purpose of clarification. For this reason, statutory provisions shall also apply even without any such clarifying note if such are not directly changed or expressly ruled out by these Sales Terms.

(7) Buyer and Seller may transfer this Agreement (principal agreement including Sales Terms) in its entirety or assign any of their rights or obligations arising out of this Agreement to third parties only by prior written consent of the other party.

§ 2 Conclusion of the Agreement, Provided Documentation

(1) Quotes and Offers of the Seller are – in particular with respect to the conclusion of Agreement and with regard to quantity, price and delivery period – subject to change and non-binding. This is also the case if the Seller has provided the Buyer with a catalogue, technical documentation (for example drawings, plans, estimates, calculations, references to DIN standards), other product descriptions or documents, including in electronic form. The Seller preserves all rights all rights of ownership and copyrights on these. These may only be made accessible to third parties with Seller`s explicit written consent.

(2) The order placed for the purchase object by the Buyer shall be deemed to constitute a binding contractual offer. An order shall only be deemed to be valid after written confirmation of order is issued or upon the delivery of the goods to the Buyer as agreed upon (acceptance).

(3) This acceptance is subject to a condition precedent (section 158(1) German Civil Code): It shall only become effective if the export control laws of the Federal Republic of Germany or the European Union as well as of the USA, as far as this is applicable from the U.S. point of view and German/European law does not conflict with its application, do not (any longer) stipulate a contractual prohibition for this legal transaction and the (export) license(s) required for this legal transaction has/have been issued. The parties explicitly rule out any retroactive effect (contra section 159 German Civil Code).

(4) The installation of the purchase object takes place based on the General Conditions of Installation and Commissioning (Installation Conditions) of the Seller, which are stipulated separately.

(5) Drawings, illustrations, measurements, weights or other performance data shall be binding only if expressly stipulated by written agreement; such data shall not be construed to constitute guarantees of quality.

§ 3 Prices

(1) The price of the purchase object (purchase price) is understood to be Free Carrier delivery from the Seller`s premises (FCA Incoterms® 2020), without discount or any other deductions, plus statutory VAT/sales tax. Any additional services agreed, for example destination charges, shall be charged to the Buyer in addition. In the case of deliveries and services performed into the EU, the Buyer shall provide the Seller with the Buyer`s VAT-ID no.

(2) The prices payable as per quotation respectively confirmation of order (contractual prices) are based on the current prices for raw materials and wage costs.

We reserve the right to adjust the contractual price accordingly if relevant cost increases occur after conclusion of the contract, in particular due to changes in the price of materials (cf. § 3 (2) SALES TERMS). In the same way we are obliged to proceed in case of relevant cost reductions.

Relevant material price amendments shall be deemed to exist if there are at least three (3) months between the date of the conclusion of contract and the date of delivery and if, based on the production cost portion of the metal and the producer price index for the metal as specified in para. 3 (2), there is a cumulative price amendment of at least ten (10) % in total compared to the contractual price (cf. further details: § 3 SALES TERMS).

We will prove both relevant cost reductions and relevant cost increases to the Buyer upon request. The producer price index for metal, which are particularly relevant for our machine production is regularly publicly available on the internet on the website: https://www-genesis.destatis.de/genesis/online, 61241-0004, GP09-24, „metals“ and can also be proven to the Buyer at any time if required. The production cost portion shares of metal, according to machine types, are expressly indicated to the Buyer by us in the quotation respectively confirmation of order.

(3) The Buyer is responsible for the import operations, the import duties and the customs declaration according to the stipulations applicable in each case as well as any duties payable in the country of destination.

§ 4 Conditions of Payment, Default on Payment

(1) The Seller's business place is the payment location. The purchase price and prices for additional services shall be due payable without any deductions and in the agreed currency to the Seller's bank account on the agreed date (§ 1 para. 3). The due time for payment arises however the latest upon delivery of possession of the purchase object respectively not later than eight (8) days from receiving the notification that the goods are ready for dispatch.

(2) The Buyer shall be entitled to rights of set-off only if the Buyer`s counter claims are legally established as res judicata, and are undisputed, or acknowledged by the Seller. In addition, the Buyer may exercise a retention right only if the Buyer`s counterclaim is based on the same Agreement.

(3) In the event that the Buyer is in arrears with payment, the Seller may claim interest on arrears in the amount of eight (8) percentage points above the respective base interest rate. The Seller retains the right to claim additional damage for delay due to breach of contract pursuant to CISG (e.g. but not limited to foreign currency losses in the case of liabilities in foreign currencies).

(4) In the event that the Buyer has not cleared the agreed payment within a period of ten (10) days after receiving a reminder notice from the Seller, the Seller is entitled to declare the Agreement avoided pursuant to Art. 64 CISG by written declaration and to claim damages including claims for loss of profit (article 74 ff. CISG).

(5) If following conclusion of the Agreement it becomes recognisable that the claim to the purchase price will be jeopardised as a result of deficient capability to render payment on the part of the Buyer (e.g. due to application for the opening of an insolvency proceeding, but not limited to this) or that the Buyer will not fulfil an important contractual obligation, the Seller shall be entitled to refuse performance and – if applicable after the setting of a deadline – revoke from the Agreement (section 323 of the German Civil Code). This is especially the case if the Buyer fails to comply with its obligation to cooperate in severe dimensions. In the case of contractual agreements on the manufacturer of unreasonable objects (custom manufacturing), the Seller may declare Revocation immediately. This shall not affect statutory provisions on the ability to waive setting a deadline.

(6) Insofar as payments are executed by third parties, Buyer shall oblige the third party to always make the reference customer and business traceable for the Seller. In case of bank transfers, for example, this information must always be included as reference on transfer. If no such indication is given within the payment information to the Seller, the performance shall not be deemed to have been rendered vis-à-vis the Seller.

§ 5 Delivery and Default on Delivery

(1) The delivery results FCA (Free Carrier) from the delivery plant in Coesfeld (FCA Incoterms® 2020), if nothing to the contrary emerges under the Agreement or individual subsequent alterations of the Agreement and individual stipulations (§ 1 para. 3).

(2) Delivery dates or delivery periods that can be agreed with or without commitment shall be stated by WRITTEN declaration. Unless expressly agreed otherwise, the dates or periods stated by the Seller are non-binding.

(3) Periods for delivery commence no earlier than upon the conclusion of the Agreement. The beginning of periods for delivery also presupposes receipt of the agreed down payment, where agreed the opening of a Letter of Credit in accordance with the Agreement and, if clarification of technical questions was reserved for later negotiation when the Agreement was concluded, the written declaration of the Seller that the technical questions are clarified.

If subsequent alterations of the Agreement are mutually agreed, the altered delivery dates or periods shall be adequately extended; if necessary, delivery dates or delivery periods shall be agreed anew at the same time.

(4) The Seller may withhold delivery until due payments have been made (and, as the case may be, until a Letter of Credit in accordance with the Agreement has been opened) by the Buyer in accordance with the AGREEMENT and all other obligations owed by the Buyer under the AGREEMENT that are necessary for the performance of the delivery of the purchase object.

(5) The Buyer may demand that the Seller deliver six (6) weeks from having exceeded a non-binding delivery date or a non-binding delivery period. Upon receipt of the demand, the Seller shall be in default. Section 376 German Commercial Code (HGB) is excluded.

(6) In the case of delay in delivery the Buyer may claim, after six (6) further weeks have elapsed and if the delay has been culpably caused by the Seller, fixed compensation for loss and damage amounting equal to zero point five per cent (0.5 %) for each further full week of delay up to a total of five per cent (5 %) on the value of that part of delivery which, as a consequence of the delay, cannot be used as intended. Any claim for damages shall also be capped at this maximum amount if the Buyer declares the avoidance of the Agreement due to the delay. The Buyer must plausibly document that financial damage was suffered due to the delay.

(7) If the maximum liquidated damages according to para. 6 herein-above are reached, the Buyer - after he has fixed an additional reasonable period combined with the announcement that acceptance of delivery will be refused, at least however six (6) weeks, - may, if the Seller does not compete delivery before that date, notify the Seller in writing of the termination of the Agreement in respect of that part of the goods which are delayed, save where acceptance of partial performance should be an unreasonable demand. Any further claims against the Seller because of delayed delivery are excluded.

(8) In the event that, whilst being in default with delivery, the Seller becomes unable to perform delivery, the Seller shall be liable within the afore-said agreed limits of liability. The Seller shall not be liable if the damage would have occurred even if delivery had been performed at the due date.

(9) If a binding delivery date or a binding delivery period is exceeded, the Seller shall already be in default from the date of exceeding the delivery date or the delivery period. In that event, the Buyer`s rights shall be subject to para. 6, 7 and 8 herein-above.

(10) Force majeure or business disruptions occurring in the Seller`s business, or in the business of the Seller`s supplier, that temporarily prevent the Seller through no fault of his own from delivering the purchase object at the agreed date or within the agreed period of time, shall alter the dates and period mentioned in para. 2 bis 9 herein-above by the period of time during which performance is not possible due to such disruptions of performance. Force majeure shall be assumed if performance is prevented by circumstances beyond the party's control or especially by one of the following circumstances: fire, natural disasters, war, seizure, requisition, prohibition of export, embargo (compare § 2 para. 3) or other authority measures, general shortage of materials, restrictions in the use of power, industrial disputes or if a breach of contract of subcontractors is caused by any such circumstances. The circumstances beyond the party's control and their discontinuation are to be reported to the other party immediately. Should such events lead to postponement of performance by more than four (4) months, any party, irrespective of other rights of withdrawal, may revoke from Agreement by written declaration. Other rights of Revocation shall not be affected.

(11) Modifications in construction or in form, weight changes, deviations of color, and alterations of the scope of delivery, on the side of the Seller are reserved during the delivery period, provided such alterations or deviations are reasonably acceptable to the Buyer in consideration of the Seller`s interests. In particular, but without limitation, changes to purchased parts (in particular, but not limited to, motors, flaps, ball valves, valves, pumps, trays, plates and control cabinets) will come into consideration, which may vary according to the choice of the subcontractor (e.g., but not limited to, color, shape, presentation, design, size, weight, deviations in surface quality). Typical construction changes are, for example, but not limited to, modified pipeline flow directions or optimizations of components. Acceptability regulations in the customer countries can also lead to reasonable construction changes. Where the Seller uses symbols or numbers to identify the order or the ordered purchase object, no rights can be derived from this alone.

(12) Fulfilment of the Seller`s delivery obligations is subject to the precondition that the Buyer punctually and properly performs his obligations., where agreed in particular (but not limited to) the timely opening of a Letter of Credit in accordance with the Agreement. The plea of non-performance of the Agreement is reserved.

(13) Partial deliveries and partial performance are permissible.

§ 6 Conditions of Acceptance, Default on Acceptance

(1) The Buyer has to collect the purchase object within ten (10) days following the notice of readiness for shipment at the latest. The costs incurred by the delay for storage, insurance, protection measures etc. will be charged to the Buyer. In this case the Seller shall be - without prejudice to further claims of the Seller - entitled in particular to charge stand-by fees in the amount of EUR 200 (two hundred) per day per machine respectively shipment. This amount can be raised or reduced if the Seller presents proof that the damage / loss suffered was higher or lower. The Seller shall set the Buyer a reasonable period for acceptance by written declaration if the Buyer does not accept the goods upon delivery. The Seller's right to require payment of the purchase price shall remain unaffected.

(2) After expiration of the additional period the Seller is entitled to terminate the Agreement in whole or partly by written declaration and claim damages. These damages amount at least half of the net value of the goods for delivery or the delivery part not taken possession of; other rights of the Seller shall not be affected.

(3) The risk of accidental loss and/or accidental deterioration of the purchase object shall pass to the Buyer according to Art. 67 et seq. CISG, but no later than on the date on which the Buyer defaults on acceptance.

(4) In the event that the Seller does not exercise the rights under para. 1 und 2 herein-above, he may freely dispose of the purchase object and, without prejudice to other statutory and/or contractual rights, such as damages claims, deliver in lieu of the purchase object goods of the same type in compliance with the Agreement terms, within a reasonable period of time.

§ 7 Reservation of Title

(1) Title in the purchased objects shall not pass to the Buyer until the Seller is in receipt of the full Agreement price. Until receipt of the full Agreement price by the Seller, the Buyer shall

- keep the purchased objects properly stored and protected, complete and in good repair as well as operate them properly as long as they have already been placed into service.
- insure the purchased objects with a reputable insurer for their full replacement value against all risks and prove this upon request of the Seller.
- not sell, pledge, transfer ownership as a security, lease or otherwise dispose of the purchased objects without Seller's prior written consent.

(2) If the applicable property laws do not acknowledge a reservation of title as provided for above or request additional preconditions such as but not limited to registration requirements etc., the Buyer undertakes to support the Seller at Seller's request to the best of his ability in order to fulfil these requirements or to establish a comparable security interest for Seller in relation to the purchased object. Reasonable costs thereby incurred shall be for Buyer's account. The Buyer shall inform the Seller if any dangers regarding the property of the Seller should occur. This applies especially to disposals of third parties or authority measures.

(3) The transfer of risk as stipulated in this Sales Terms remains unaffected by the reservation of title.

§ 8 Seller's Responsibility for Conformity of the Goods

(1) The Buyer may raise claims based on non-conformity of the purchase object only if he duly fulfilled his obligation to examine the purchase object and give notice of any non-conformity. The Buyer has to examine the purchase object in every respect for any lack of conformity with the contract immediately after the goods are physically transferred to him and to give notice of any non-conformity immediately after the non-conformity had been discovered. The notice has to be made that substantiated, that the Seller is able to make a clear-cut judgement on the nature, contents and scale of the non-conformity as well as to acknowledge the Buyer's intention not to accept the delivery of the purchase object as proper fulfilment of his duties.

The Buyer shall lose the right to claim non-conformity with the contract, if he does not give notice to the Seller by written declaration by the quickest possible means by which transmission is guaranteed (e.g. by telefax) immediately after he discovered or ought to have been discovered the non-conformity. Art. 44 CISG is excluded. After arrangement with the Seller the Buyer is responsible for the securing of all proofs.

(2) The proof of careful treatment, adequate storage and maintenance of the purchase object devolves on the Buyer.

(3) If the delivery was not fulfilled as contractually agreed, the Seller shall according to his choice be free to remedy such non-conformity by subsequent improvement or making a replacement, even in the case of fundamental non-conformity within twelve (12) weeks after the Buyer's request. The Seller is seeking a quick subsequent improvement respectively replacement, but can not accept shorter deadlines because of the spare part production where necessary, the delivery and the formalities for export and import.

(4) The Seller expressly confirms that (with the exception of parts subject to wear and tear) it will replace, free of charge (DAP Incoterms 2020), parts which are objected to in writing on the grounds of non-conformity within the period specified in § 16 upon return of the original parts. For the avoidance of doubt, any customs duties, handling or clearing charges incurred in the country of destination shall be for the Buyer's account. For the parts installed to remedy the non-conformity, the Buyer may only assert claims based on the non-conformity of parts until the expiry of the limitation period of the object of purchase. The Buyer may raise claims based on lack of conformity of parts installed to remedy the lack of conformity under the Agreement until the limitation period for the purchase object ends.

(5) No claims are created on the grounds of non-conformity if there is a relationship of cause and effect between the emerging non-conformity and the fact that

- the purchase object was handled improperly or put under excessive strain, e.g. , but not limited to cases of inappropriate use of operating and production materials/mediums (salts, water, etc.),
- the purchase object was previously repaired or serviced by a service provider not accredited by the Seller and the Buyer should have recognised this, or
- parts were installed in the purchase object the use of which is not permitted by the Seller, or the purchase object was altered in a manner not permitted by the Seller, or
- the Buyer failed to observe the provisions relating to the handling, maintenance, servicing of the purchase object (e.g. operating instructions).

(6) If the Seller does not remedy the non-conformity (including defects of title) in accordance with the preceding paragraphs, the Buyer is entitled to a reasonable pro rata reduction of the purchase price. If the lack of conformity is fundamental as defined by article 25 CISG, the Buyer may demand termination of the Agreement after fruitless elapse of the deadline according to para. 3 herein-above, except where the Seller delivers prior to termination.

(7) Natural wear-and-tear shall not create any claims based on non-conformity, whatsoever.

(8) Claims for compensation for damages and reimbursement of futile expenses based on a non-conformity of the purchase object shall additionally be subject to § 11.

§ 9 Adherence to Statutory Provisions under Law Governing Export Controls

The obligation on the part of the Seller and the party receiving the goods to fulfil the AGREEMENT shall be subject to the proviso that the execution of the AGREEMENT is not prohibited or negatively affected by applicable export-control provisions of the Federal Republic of Germany or the European Union.

In addition, this obligation is subject to the proviso that the execution of the Agreement is not prohibited or negatively affected by other applicable provisions under export-control law, in particular the law of the USA, as far as it is applicable from the U.S. point of view and German/European law does not conflict with its application.

Should trade policy or other factual or legal developments emerge, that the Agreement or certain performances owed under the Agreement are or will become subject to government approval or fall or will fall under a prohibition ban, the parties shall be obligated to consult over alternative Agreement designs with the aim of adopting an amendment to the Agreement by mutual agreement.

§ 10 Exclusion of Liability for Damage Incurred in Connection with Export-Control Law

The Agreement shall be deemed to be null and void if it relates to a legal transaction that is prohibited under the law of the Federal Republic of Germany resp. the European Union or the law of the USA, as far as it is applicable from the U.S. point of view and German/European law does not conflict with its application, and shall be provisionally invalid to the extent that it relates to a legal transaction that requires an (export) license.

Notwithstanding provisions to the contrary in the Agreement, the Seller shall not be liable for damage, losses or any other costs that emanate from adherence to export-control provisions of the Federal Republic of Germany resp. the European Union or the law of the USA, as far as it is applicable from the U.S. point of view and German/European law does not conflict with its application, including, but not restricted to those which

a) emanate for this legal transaction from a negligent or unrecognised contractual prohibition or an approval of the Agreement that is not received under the said export-control provisions as long as failure to obtain approval is not due to the willful intent or gross negligence of a party,

b) lead to the execution of the Agreement being prohibited or negatively affected by the said export-control provisions,

c) emanates from delays as a result of government license obligations and/or comparable procedures that have not been caused by a party acting with willful intent or in a grossly negligent manner.

§11 Liability

(1) Claims of the Buyer for compensation for damages and reimbursement of futile expenses based on a non-conformity of the purchase object are subject to the condition that the lack of conformity is fault of the Seller.

(2) There are no other express or implied warranties. Any statement about the production and/or commercial efficiency of a machine shall only be regarded as an estimate and not as a warranty or binding statement. No liability is accepted for materials or accessories purchased at the instigation of the Buyer.

No liability is accepted for parts supplied which are subject to premature wear on account of the nature of the materials of which they are made, particularly moving parts, or the type of use.

The Seller has no liability for defects which arise from the design prescribed by the Buyer, in particular no liability attaches to the Seller for defects resulting from the following causes: poor maintenance, use of non-original Thies spare parts, changes without the written consent of the Seller, badly performed repairs by the Buyer and normal wear and tear.

Because of the obvious corrosion problem, we point out in particular that exclusively Glauber salt (sodium sulfate) is to be used as permitted operating and production material/medium, not Common salt (sodium chloride).

(3) If the Seller is not tenable for the impossibility of performance, all claims of the Buyer shall be deemed extinguished.

(4) If the Seller is liable to pay compensation for damage that was caused by negligence (but not by gross negligence), the Seller`s liability shall be limited as follows: The Seller shall be liable only for breached obligations that are essential to the Agreement, for example obligations that the Agreement, according to its content and purpose, is particularly designed to impose, or without the performance of which the implementation of the purchase Agreement is not possible and on the observance of which the Buyer regularly relies and may rely. This liability is limited to the typical damage that is foreseeable at the time of entering into the Agreement; the typical damage shall only comprise damage to the purchase object itself, not however any consequential damage and/or lost profits. If the damage is covered by an insurance policy that the Buyer took out to cover the case in question (with the exception of fixed-sum insurance), the Seller shall be liable for any detriment suffered by the Buyer in connection therewith, e.g. insurance premiums or interest charged, only until such time as the insurance has finalized claim settlement.

(5) In case of any violation of side obligations (also of pre- or post-contractual side obligations), the Seller only grants liability for damage which is caused by gross negligence and limited to a maximum of ten per cent (10 %) of the total final purchase price.

(6) Regardless of whether the Seller is at fault, the Seller`s liability in the case of fraudulent concealment of a defect, fraudulent misrepresentation, under a guarantee issued, or a risk assumed, and under the German Product Liability Act (Produkthaftungsgesetz - ProdHaftG), shall not be affected.

(7) The personal liability of statutory representatives, persons employed in performing an obligation for whom the principal is vicariously liable and employees of the Seller for any damage caused through their respective slight negligence is excluded. In the case of damage caused through the gross negligence of above-said persons, with the exception of statutory representatives and executive/managerial employees, the limitation of liability applicable to the Seller shall apply mutatis mutandis.

(8) The contractual liability for persons employed in performing an obligation for whom the principal is vicariously liable is with the exception of intent and gross negligence excluded in accordance with section 278 sentence 2 in conjunction with section 276 par. 3 German Civil Code.

(9) The limitations of liability provided for in the present Section shall not apply in the case of injuries to life, the body or health.

§ 12 Delays Resulting from Official Government Measures

Any applications for (export) licenses required should be filed three months prior to the planned delivery. In the event that there are delays as a result of official government approval obligations and/or comparable procedures, the point in time of the performance shall be postponed commensurately in accordance with respective contractual obligations.

§ 13 Contractual Use and Further Supply of Contractual Goods by the Party Receiving Delivery

The Buyer may use the purchase object only for the purpose that it has provided notification of. In particular, the Buyer shall not be allowed to supply the purchase object to a third party if such third party is on a sanctions list integrated into the AGREEMENT via § 9.

§ 14 Export license, information obligations

(1) The Seller is not aware of any circumstances that would prevent the issuance of an export license if required. However, the Seller does explicitly neither guarantee that a required export permit will be granted nor the possibility of issuing an required export permit.

(2) The Buyer agrees to use its best efforts to support the Seller when obtaining an export permit. The Buyer shall be responsible for obtaining an import license if so required.

(3) Notwithstanding other information obligations stipulated in this Agreement, each party shall support the other party in providing that information and documents (referred to in the following as: Information) which are required in order to meet the export control law integrated into the Agreement via § 9 or which are demanded by relevant government authorities in this regard.

This obligation may in particular also include Information on the end customer, the objective and the use of the purchase object in accordance with their intended purpose and shall not be excluded through non-disclosure obligations that may have been concluded previously. If necessary an exemption from a previously closed non-disclosure agreement can be demanded if an applicable provision under export-control law require technical details to be transmitted to the involved authorities.

§ 15 Expect Controls and Revocation of the Agreement

(1) Each party may revoke the Agreement with ab initio effect if the government authority in charge

a) refuses to issue the (export) license or

b) fails to issue the required (export/import) license within a period of three (3) months after the delivery date.

(2) The Seller may revoke the Agreement if the Buyer undertakes actions that encourage, allow one to expect or could result in a violation against export-control provisions integrated into the Agreement via § 9, in particular if there are justified reasons for believing that the party receiving the goods does not intend to use the goods for the communicated (§ 13) but for an illegal purpose.

(3) The provisions cited in the foregoing are not based on the possibility to terminate the Agreement for reasons other than the ones stated in the foregoing.

§ 16 Time Barring (Statute of Limitation Period)

(1) By way of deviation from section 438 para. 1 no. 3 of the German Civil Code the general time-bar period for claims emanating from delivery of non-conforming goods resp. goods subject to rights or claims of a third party shall be one year after transfer of risk.

(2) Special statutory provisions for rights in rem to hand over objects held by third parties shall also remain unaffected (section 438 para. 1 no. 1 of the German Civil Code), for things that have been customary used for a building and have resulted in the defectiveness of the building (section 438 para. 1 no. 2 of the German Civil Code) as well as fraudulent intent or grossly negligent ignorance on the part of the Seller (Art. 3 of the act enacting the CISG in conjunction with section 438 para. 3 of the German Civil Code).

(3) The aforestated time-bar periods under purchase law shall also apply to contractual and non-contractual claims to damages on the part of the Buyer that are based on delivery of non-conforming goods resp. goods subject to rights or claims of a third party unless application of regular statutory time-bar periods (section 195, section 199 of the German Civil Code) would lead to a shorter time-bar period in individual cases. This shall at any rate not affect the time-bar periods laid down in the German Product Liability Act (Produkthaftungsgesetz - ProdHaftG). Otherwise solely statutory time-bar periods shall apply to damage claims by the Buyer.

§ 17 Place of Fulfilment, Applicable Law, Arbitration Clause

(1) The place of performance for the delivery of the purchase object in the general case of delivery FCA (Free Carrier) from the delivery plant in Coesfeld (FCA Incoterms® 2020) is the delivery plant in Coesfeld.

By way of derogation, a different Incoterm 2020 may also be agreed by individual agreement (cf. § 3 (3):
If, deviating from sentence 1, the Incoterms 2020 clauses CPT, CIP, CFR, CIF, DAP, are agreed or if, deviating from sentence 1 and § 3 (3), the clause DDP is agreed, the SELLER shall indicate the transport costs included in the price separately in the deviating agreement. The place of performance shall be the place of handing over the goods to the first carrier in case of agreement of clause CPT or CIP, on board the vessel in the port of shipment in case of clause CFR or CIF, and the place of destination in case of clause DDP or DAP.

If, in case of agreement of clauses CPT, CIP, CFR, CIF, DAP or DDP, the transport costs actually incurred, as evidenced by the relevant invoice documents, differ from the aforementioned calculated transport costs, the BUYER shall bear the difference, both in the event that the transport costs actually incurred (or transport costs to the place of delivery actually incurred) are higher than the calculated transport costs and in the event that they are lower than the calculated transport costs.

The place of performance for payments rendered by the Buyer and for all other reciprocal claims is the business offices (administrative headquarters) of the Seller.

(2) The Agreement, including any and all disputes arising from or related to the AGREEMENT and all legal relationships between the Seller and the Buyer are governed by the substantive laws of Germany. The United Nations Convention on Contracts for the International Sale of Goods (CISG) shall apply, if no deviating regulations are determined, Art. 6 CISG.

(3) (For) all disputes, differences of opinion and/or claims directly or indirectly emanating from or in connection with this Agreement including its validity, invalidity, its being null and void, practicability and impracticability, violation or dissolution,

a) with Buyers having their head business offices (administrative headquarters) in the EU, Switzerland, Norway or Iceland, the exclusive place of jurisdiction shall be the courts having jurisdiction over the Seller. The Seller shall be entitled, however, to take legal action at the general place of jurisdiction of the Buyer.

b) with Buyers which do not have any head offices (administrative headquarters) in the EU, Switzerland, Norway or Iceland, shall be finally settled according to the Arbitration Rules and the Supplementary Rules for Expedited Proceedings of the German Institution of Arbitration e.V. (DIS) in force on the date when the Notice of Arbitration is submitted in accordance with these Rules without recourse to the ordinary courts of law. The court of arbitration shall be composed of three arbitrators. The place of arbitration is Münster/Westf., Germany. The language of the arbitral proceedings is German. The choice of law in para. (2) shall also apply with respect to this arbitration agreement.

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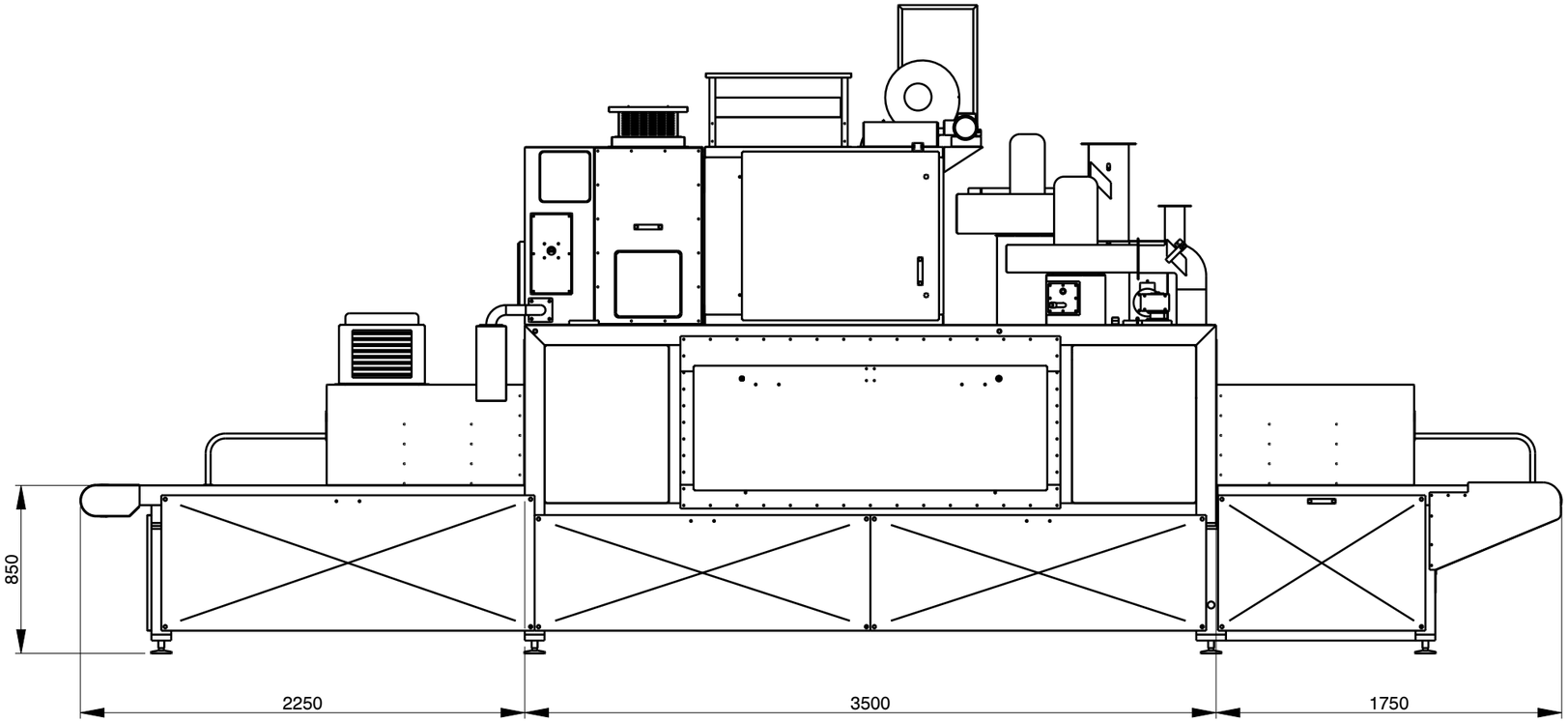

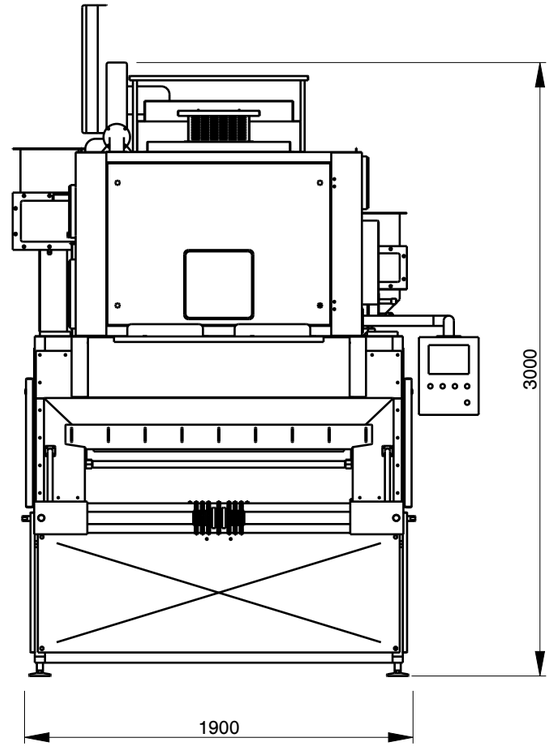

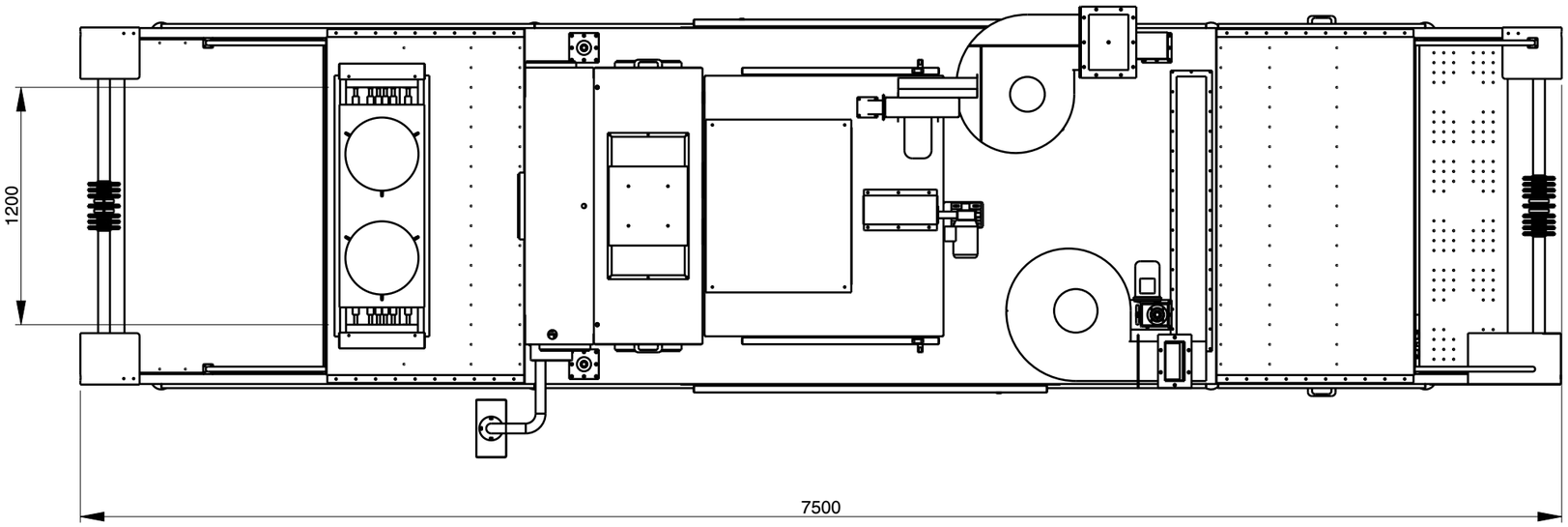

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Rev.	Data	Disegnato	Richiesto	Approvato	Modifica - Descrizione	Tav.: 1/2

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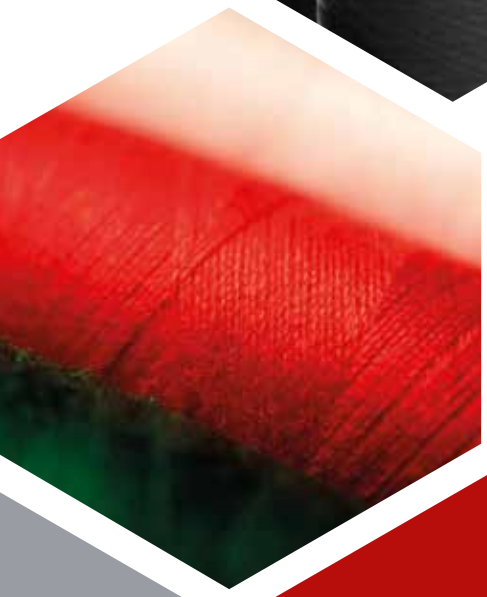


STALAM

Radio Frequency Equipment

Textile dryers

STALAM
Radio Frequency Equipment

Company Profile

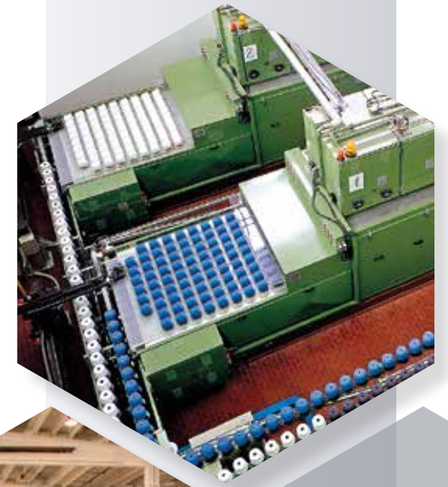
Established in 1978, STALAM is the world leader in the development, design and manufacture of equipment where capacitive electromagnetic fields at I.S.M. metric frequencies (RF fields) are exploited for a variety of thermal processing and drying applications on raw materials, intermediate and finished industrial products.

As a member of AEI (Italian Electronic and Electrotechnical Association) and of ACIMIT (the Association of Italian Manufacturers of Machinery for the Textile Industry) STALAM cooperates actively with prestigious universities and research institutes for the development of the RF technology both as to generation techniques and to technological applications.

STALAM also co-operates with other leading machinery manufacturers for the development of innovative technologies and for the supply of “turn key” automated and integrated processing lines.

Presently, more than 2300 STALAM Radio Frequency machines are in operation in the world, with rated power values ranging from 3 to 450 kW; from the simple, manually operated machine, to the fully automated line complete with computerised control and supervision systems.

Exporting over 90% of its production to the five continents, STALAM provides professional and prompt commercial and technical assistance in all the relevant areas throughout the world.



2300+
machines
in operation

60+
countries
global presence

STALAM
Radio Frequency Equipment

RF Technology

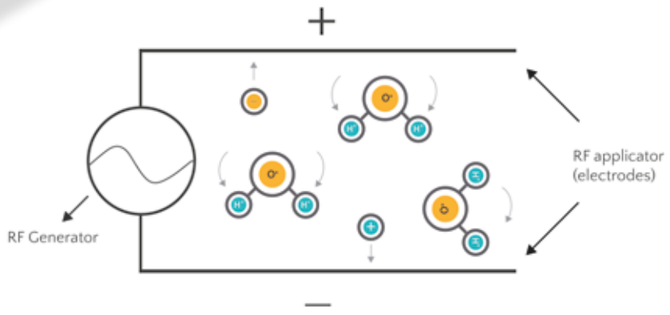
How it works?

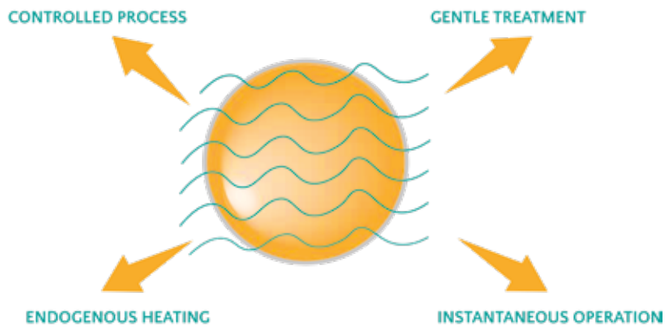
Radio Frequency dielectric heating is a drying and thermal processing technology based on the dissipation of electromagnetic energy within the product. Unlike conventional techniques, where heat is transferred to the product through its surface from an external heat source by conduction, convection or irradiation, a Radio Frequency field generates heat directly inside the entire product mass – that is why the related mechanism is called “endogenous” or “volumetric”. The heat generation is instantaneous and allows a rapid, uniform and perfectly controlled process.

The RF heating mechanism, excluding the materials (like metals) which are good conductors of electric current, is related to the so called “dielectric losses”. Dielectric losses are caused by the vibration and rotation of polar or polarised molecules and by the polarisation and translation movement of ionic particles inside the material, induced by the quick (several million times per second) polarity reversal of the RF field. This can be interpreted as if the electromagnetic field is absorbed and converted into thermal energy by the effect of the rapid movement of polar(ised) molecules and ions.

Water molecules are highly polar, more than all substrates in which water can normally be found, and many ionic species are usually dissolved in water.

Therefore, RF electromagnetic fields can heat up very quickly materials containing water. In particular, Radio Frequency has the ability to evaporate water rapidly, efficiently and selectively from many substrates, which enables their users to obtain the maximum benefits in terms of product quality, reduced operating costs, high flexibility and reliability.

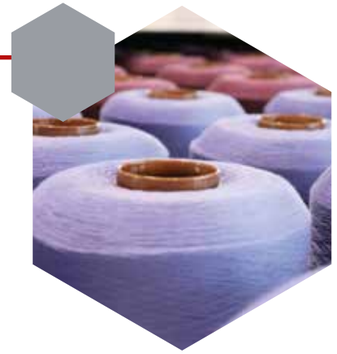




STALAM
Radio Frequency Equipment

RF and *RFA* series dryers

Best for *yarn packages and tops/bumps*



With more than 2000 units in operation worldwide, the *RF* series dryers are STALAM's best sellers. They are multi-purpose dryers particularly suitable for yarn in packages and cakes as well as for worsted fibres (tops) in bobbin and bump form.
Almost all combinations of natural, artificial and synthetic fibres, pure or blended, in every count and form can be dried perfectly, down to the desired residual moisture level, with outstanding efficiency and quality results that cannot be achieved with any conventional drying system.

Hanks can also be perfectly dried, without any movement or passing air flow, thus avoiding yarn entanglement - which is a typical problem in hot air dryers - and making the winding operation more efficient. Tow slivers can be dried folded up on the conveyor belt of the RF dryer: a perfect residual moisture distribution is obtained within the sliver, resulting in an increased efficiency of the tow stretch-breaking or tops intersecting/re-combing operations. Moreover, the lamination effects, typical of drum dryers, are eliminated.

Loose stock can be loaded directly on the conveyor belt of the dryer or even inside permeable bags. The reduced losses of product, the uniformity of drying, the improved physical-mechanical characteristics of the fibres, and consequently the more efficient carding - combing - spinning operations, result in a higher yarn metric yield of up to 2%.

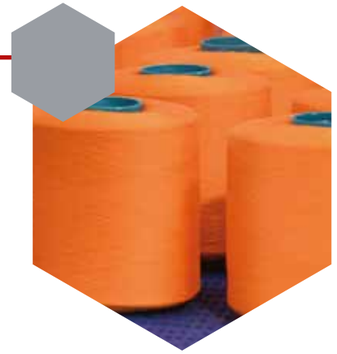
In the *RFA* (Radio Frequency Assisted) series dryers, the RF treatment is combined with a conventional warm air circulation system.
The STALAM *RF* and *RFA* model dryers allow savings in operating costs up to 10-15% compared to other standard Radio Frequency dryers available in the world markets.

Models available

RF power (kW)	PRODUCTION CAPACITY (KG/H)*			DIMENSIONS
	synthetics (acr, pes, ny, etc.)	wool and blends (wo/acr, cot/pes, pes/visc, etc.)	silk, cotton, linen, viscose	L(m) x W(m) x H(m)
10	80 ÷ 110	35 ÷ 50	20 ÷ 25	6.0 x 1.7 x 2.8
20	130 ÷ 220	70 ÷ 105	40 ÷ 55	7.5 x 1.8 x 3.3
30	240 ÷ 330	105 ÷ 155	60 ÷ 80	7.5 x 1.8 x 3.3
40	320 ÷ 440	140 ÷ 205	80 ÷ 105	7.5 x 1.8 x 3.3
50	400 ÷ 550	170 ÷ 265	100 ÷ 135	9.0 x 2.4 x 3.3
60	480 ÷ 660	205 ÷ 315	120 ÷ 160	9.0 x 2.4 x 3.3
70/75	580 ÷ 790	250 ÷ 375	145 ÷ 195	9.0 x 2.4 x 3.3
85	680 ÷ 920	290 ÷ 430	170 ÷ 225	9.0 x 2.4 x 3.3
105	over 1000	360 ÷ 510	210 ÷ 280	9.5 x 2.4 x 3.5

** Production capacity may vary depending on product type, loading density, actual moisture content etc.*
Contact us for specific information about your product.

RF ECO+ series dryers



Best for *yarn packages*

STALAM's continuous investments aimed to improve the performance and sustainability of its products led to the development of the new *RF ECO+* series dryers. These highly efficient machines are mostly dedicated to medium and large size dye-houses, to meet their high production capacity requirements with the most favourable productivity/foot-print and productivity/cost ratios.

Having rated power values ranging from 125 kW to 180 kW, the state-of-the-art *RF ECO+* dryers ensure savings in operating costs up to 20% compared to the previous generation RF dryers still available in the market. Powerful, reliable and versatile, the *RF ECO+* series dryers are also Industry 4.0 ready.

Although the *RF ECO+* dryers are designed to deliver high power values, the RF power distribution electrodes have been adequately sized to maintain the lowest possible power density on the product being dried.

Moreover, the innovative air circulation and evacuation systems assist the evaporation process maximizing the moisture removal efficiency while avoiding all dew condensation problems inside the drying tunnel.

The dryers' operation is supervised by *CONTROL+*, a highly sophisticated yet user-friendly software solution, that makes it simple but accurate and error-free to control all operational parameters like the RF power delivery, the electrodes position and voltage, the treatment time (or the conveyor belt speed), the tunnel temperature, etc. And while doing so, the *CONTROL+* system will also make sure that all the machine components and circuitry are in good and safe working conditions, promptly warning the operator if otherwise and providing him with a detailed diagnosis and trouble-shooting advices in case of any issue.

Models available

RF power (kW)	PRODUCTION CAPACITY (KG/H)*			DIMENSIONS
	synthetics (acr, pes, ny, etc.)	wool and blends (wo/acr, cot/pes, pes/visc, etc.)	silk, cotton, linen, viscose	L(m) x W(m) x H(m)
125	over 1100	over 450	over 250	9.5 x 2.4 x 3.5
150	over 1200	over 500	over 300	10.5 x 2.4 x 3.7
180	over 1300	over 550	over 350	10.5 x 2.4 x 3.7

** Production capacity may vary depending on product type, loading density, actual moisture content etc. Contact us for specific information about your product.*

STALAM
Radio Frequency Equipment

LTRF and *RFA/S* series dryers

Best for *loose stock, tow/top slivers and yarns in hanks*

The *LTRF* (Low Temperature Radio Frequency) series dryers are especially designed for the low temperature drying of all "loose" textile products.

These dryers derive directly from the *RF* series equipment. The innovation consists in the additional air suction and blowing compartments, placed just beneath the conveyor belt, which are fitted with medium-head centrifugal fans.
These compartments force a controlled amount of air – generally recovered from the triode cooling system – through the product being submitted to the RF field, so that the drying process takes place at temperatures which normally do not exceed 60-70°C.

The air passing through the product improves the energy efficiency as well, so that drying costs are reduced by 15-30% when compared to the standard *RF* technology.

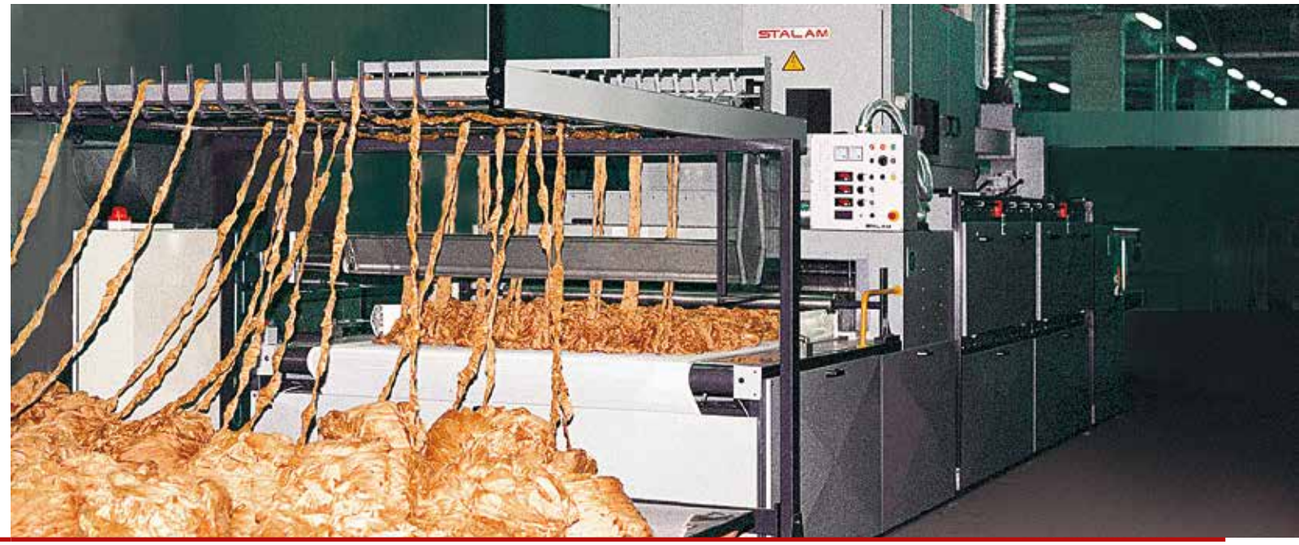
An original version of these dryers is the *RFA/S* series. Here, the principles of both the *RFA* and *LTRF* technologies are combined: the forced air flowing through the product and the accurate temperature control inside the drying tunnel allow us to set all parameters of the evaporation process. Both the product quality and the energy efficiency are improved, and savings in drying costs up to 35% in comparison with the standard *RF* technology are obtained.

Several *LTRF* and *RFA/S* series dryers installed worldwide since the mid-nineties have proven their effectiveness with a wide range of products like: cotton, wool and cashmere loose stock, fine wool tops slivers, acrylic tow, silk hanks, cashmere, lambswool and other fine wool yarns in hank form, wool and nylon "jumbo" hanks for carpets, cotton, mercerised cotton and rayon yarns for knitting, sewing and embroidery, etc.

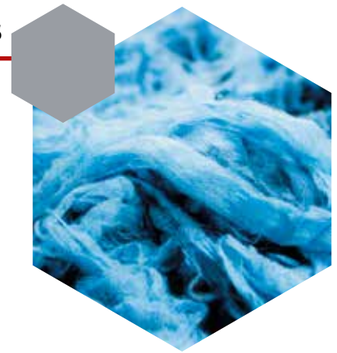
Models available

RF power (kW)	PRODUCTION CAPACITY (KG/H)*			DIMENSIONS
	synthetics (acr, pes, ny, etc.)	wool and blends (wo/acr, cot/pes, pes/visc, etc.)	silk, cotton, linen, viscose	L(m) x W(m) x H(m)
30	300 ÷ 450	120 ÷ 180	75 ÷ 110	9.0 x 2.1 x 3.3
40	400 ÷ 600	160 ÷ 240	100 ÷ 150	9.0 x 2.1 x 3.3
50	500 ÷ 750	200 ÷ 300	125 ÷ 180	9.0 x 2.5 x 3.3
60	600 ÷ 900	240 ÷ 360	150 ÷ 220	9.0 x 2.5 x 3.3
70/75	700 ÷ 1050	280 ÷ 420	175 ÷ 250	9.0 x 2.5 x 3.3

** Production capacity may vary depending on product type, loading density, actual moisture content etc.*
Contact us for specific information about your product.



RFA/S COMBO Twin-Power series dryers



Best for *loose stock, tow/top slivers and yarns in hanks*

The *RFA/S COMBO* series dryers are the latest evolution of the RF and forced-air circulation combined drying equipment developed by STALAM in the early nineties.

In these dryers, independent forced-air drying sections are added to the standard configuration of the *RFA/S* machines, thus obtaining a truly "twin-power" drying system where it is possible to control and dose independently each form of energy (electromagnetic and conventional) for different products or process requirements, by modulating them through the PLC.

The unique modular design and the specific PLC software developed by STALAM for the *RFA/S COMBO* dryers will always allow the end-user to set the ideal combination of Radio Frequency and hot air (of which both the temperature and the flow can be controlled independently) to optimise the drying process for each substrate.

The *RFA/S COMBO* dryers can be successfully used with all the different textile substrates, but the best results can be achieved with the so called "low density products" such as loose fibres, unwound tow/top slivers, yarns in hanks, etc. where the conventional air circulation system can be more effective in evaporating water, bulking fibres, reducing the internal temperature and minimising the risk of overheating (scorching) especially in delicate and temperature-sensitive products.

The modular construction and the full flexibility in combining RF and air drying as desired, make it easy to size these dryers adequately for any production capacity requirement.

Models available

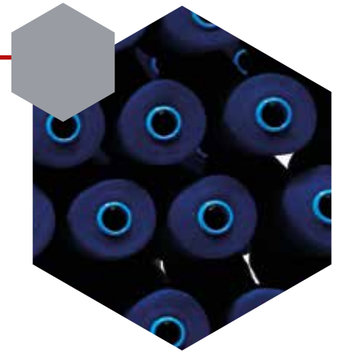
MODEL	PRODUCTION CAPACITY (KG/H)*			DIMENSIONS
	synthetics (acr, pes, ny, etc.)	wool and blends (wo/acr, cot/pes, pes/visc, etc.)	silk, cotton, linen, viscose	L(m) x W(m) x H(m)
40 kW + 1-2 HA	450 ÷ 600	200 ÷ 250	100 ÷ 150	9.5-11.5 x 2.4 x 3.3
60 kW + 1-2 HA	650 ÷ 900	300 ÷ 375	150 ÷ 225	11.5-13.5 x 2.4 x 3.3
85 kW + 1-2 HA	900 ÷ 1200	400 ÷ 500	200 ÷ 300	11.5-13.5 x 2.4 x 3.3

** Production capacity may vary depending on product type, loading density, actual moisture content etc.*
Contact us for specific information about your product.

STALAM
Radio Frequency Equipment

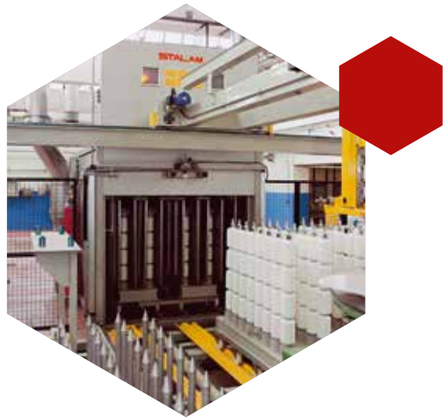
TCRF series dryers

Best for *yarn packages and tops/bumps*



The *TCRF* (Thermo-Controlled Radio Frequency) model dryers represent the outcome of the researches carried out by STALAM in co-operation with Messrs. Loris Bellini as to the drying of yarn packages and tops in bobbin or bump form by means of a combination of RF energy and forced air circulation. They can surely be considered as the most sophisticated batch-type textile dryers available worldwide.

In the *TCRF* dryers a passing-through, inverter-controlled air flow makes it possible to control the product's internal temperature as desired while the RF energy is applied.
The air is recovered from the RF generator cooling system and can be additionally heated up by a steam-fed heat exchanger up to about 90°C. An automatic weighing system stops the drying cycle automatically when the desired final weight has been reached. All working parameters and dryer operations are set and automatically controlled through the PLC.



TCRF dryers with 1 or 2 trolleys specifically designed for yarn packages, and a dryer model with 2 trolleys suitable for both tops and packages, are available.

Thanks to the accurate drying temperature control, the *TCRF* dryers are particularly suitable for all products whose quality parameters are negatively affected by prolonged thermal treatments or by temperatures above a certain limit, such as bleached and pastel-shade wool or cotton/acrylic blends, direct-dyed cotton and viscose yarns, etc.

TCRF dryers allow a remarkable reduction of overall drying costs, with electricity savings up to 25% compared to the standard Radio Frequency technology and thanks to the ease of product loading and unloading operations, which contributes to minimise labour costs.

The *TCRF* dryers are also predisposed to be integrated into fully automated dyeing plants with robotised handling systems for dye-columns.

Models available

MODEL	PRODUCTION CAPACITY (KG/H)*			DIMENSIONS
	synthetics (acr, pes, ny, etc.)	wool and blends (wo/acr, cot/pes, pes/visc, etc.)	silk, cotton, linen, viscose	L(m) x W(m) x H(m)
TCRF 1C	350 ÷ 500	170 ÷ 250	100 ÷ 160	4.0 x 1.5 x 3.6
TCRF 2C/RT	450 ÷ 700	220 ÷ 350	130 ÷ 210	4.0 x 1.8 x 3.6
TCRF 2C/R	600 ÷ 850	260 ÷ 440	160 ÷ 260	4.0 x 2.2 x 3.6

** Production capacity may vary depending on product type, loading density, actual moisture content etc. Contact us for specific information about your product.*

RFA/HP dryer

Best for *yarn packages*

This revolutionary drying equipment, specifically designed for yarn packages, combines the RF technology with a forced air circulation system through the product in a conveyorised type dryer.

It is the first time worldwide that a passing-through air flow can be obtained in yarn packages in a continuous throughput drying equipment.

The air forced through the product is heated up to the desired temperature without using any external (additional) energy source by recovering the heat dissipated by the RF generator. Both the RF energy and the warm air forced through the product contribute to water evaporation. This combined process, other than being extremely efficient, enables a precise control of the product's internal temperature, thus optimising the drying quality results.

The operation of the dryer is fully automatic and managed through a PLC where all different "recipes" for various yarn package types can be stored and recalled.

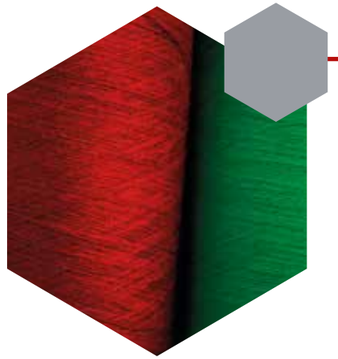
Models available

RF power (kW)	PRODUCTION CAPACITY (KG/H)*			DIMENSIONS
	synthetics (acr, pes, ny, etc.)	wool and blends (wo/acr, cot/pes, pes/visc, etc.)	silk, cotton, linen, viscose	L(m) x W(m) x H(m)
90	800 ÷ 1200	400 ÷ 600	250 ÷ 350	8.5 x 2.4 x 2.9

** Production capacity may vary depending on product type, loading density, actual moisture content etc.*
Contact us for specific information about your product.

RF/C dryer

Best for *yarn packages*



This is an innovative, continuous type Radio Frequency dryer for yarn package dye-columns designed to simplify the logistics within the dye-house and minimise product handling and related costs.

The dye-columns are carried in and out from the drying chamber of the *RF/C* machine in vertical position by a carousel system in stepped movements. The step pace is adjustable according to the drying requirements specific to the product such as: yarn type, package weight, moisture content, etc.

The product loading and unloading station is located at the front of the dryer. In this position the operator - or a robotized handling device - can load the wet package dye-columns directly from the hydroextractor and unload the dry ones to the finished product station.

All running parameters of the equipment (RF power, carousel speed, etc.) are set by a PLC via a touch-screen operator panel.

Models available

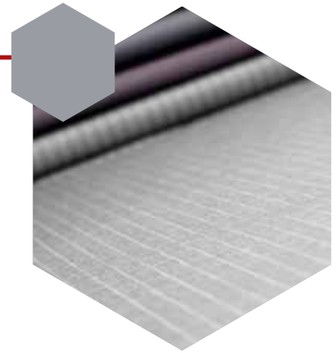
RF power (kW)	PRODUCTION CAPACITY (KG/H)*			DIMENSIONS
	synthetics (acr, pes, ny, etc.)	wool and blends (wo/acr, cot/pes, pes/visc, etc.)	silk, cotton, linen, viscose	L(m) x W(m) x H(m)
90	600 ÷ 900	250 ÷ 400	160 ÷ 240	7.5 x 1.6 x 4.3

** Production capacity may vary depending on product type, loading density, actual moisture content etc.*
Contact us for specific information about your product.

STALAM
Radio Frequency Equipment

RF/T dryer

Best for *fabrics*



The *RF/T* series dryer can be considered the only industrial Radio Frequency drying equipment specifically designed for the tensionless drying - partial or complete - of woven or knitted fabrics.

The *RF/T* series dryer can be used not only as a stand-alone drying unit, but also in combination with existing (old or new) equipment like conventional tensionless dryers, relaxation dryers, stenters, thermosetting equipment, and many other finishing machines, especially in the woollen industry (e.g. decatising, pressing and steaming machines): the *RF/T* will increase the efficiency and throughput of existing equipment, in addition to improving the quality of the finished product in terms of dimensional stability, formability and shear rigidity.

The drying process takes just a few seconds, even for very thick (heavy) fabrics, and occurs under low temperature conditions (40-60°C). The residual moisture content in the fabric is perfectly uniform and controlled by an in-line computerised system.

The equipment has the ability to transfer high Radio Frequency power values onto small surfaces, thus obtaining a correspondingly high productivity within a small space; moreover, the construction is modular, to fit any production requirement.

Models available

RF power (kW)	DIMENSIONS L(m) x W(m) x H(m)
60	4.2 x 4.2 x 4.2
85	4.2 x 4.2 x 4.2

Dryers for stocking and tights

Best for *stocking and tights*

In comparison with traditional methods, the Radio Frequency drying of ladies stocking and tights after dyeing and hydroextraction, other than resulting in better product quality, offers various technical advantages, paving the way to innovative finishing procedures and, finally, leading to a corresponding increase in overall profitability.

Thanks to the ability of RF energy to penetrate thick and bulky products, stocking and tights, dyed and hydroextracted prior to - or after boarding and/or ironing, can be dried efficiently and uniformly when laid on the conveyor belt of the dryer as loose dozens or directly inside the dye-bags. They remain stationary and completely relaxed until the drying process is completed. The product exits the dryer with the desired final moisture content (normally regain) and is cool enough to go immediately for packing. Being the RF heating phenomenon selective towards the wet areas, less evaporation is generated in the legs and more in the wetter, thicker areas (toes, welts, seams and waistcoat) resulting in a perfectly uniform drying of the whole product.

The ability to control accurately the water evaporation rate makes the use of RF drying beneficial not only for stocking and tights directly sent for packing and distribution, but also for products to be sent to boarding or ironing after dyeing. These operations can be carried out faster and more effectively when the product has an initial moisture content around 7-8%: such ideal moisture level can easily be achieved uniformly throughout the product by partial RF drying, starting from the usual 12-15% moisture content after centrifugal hydroextraction.

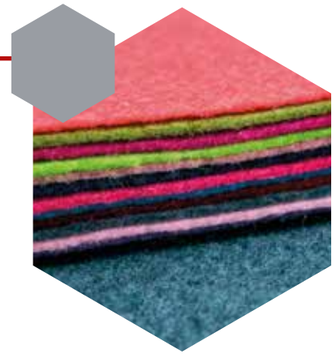
Models available

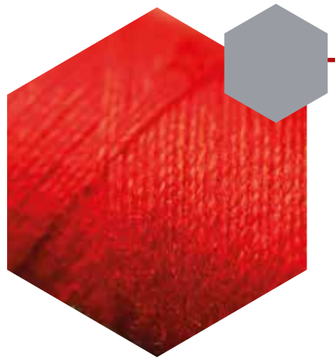
RF power (kW)	PRODUCTION CAPACITY* (doz/h)	DIMENSIONS L(m) x W(m) x H(m)
10	400	6.0 x 1.7 x 2.8
20	800	7.5 x 1.8 x 3.3
30	1200	7.5 x 1.8 x 3.3
40	1600	9.0 x 2.0 x 3.3
50	2000	9.0 x 2.4 x 3.3
60	2400	9.0 x 2.4 x 3.3

** Production capacity may vary depending on product type, loading density, actual moisture content etc. Contact us for specific information about your product.*

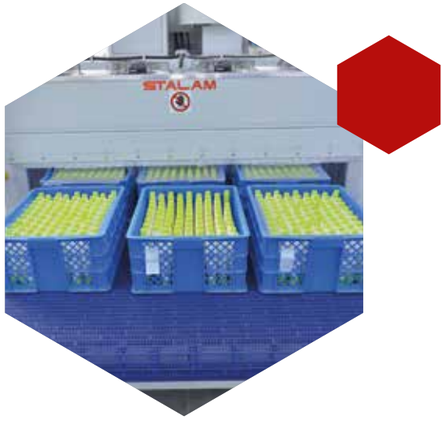
STALAM
Radio Frequency Equipment

Dryers for other applications





Considering that most non-electrically conductive (ie. dielectric) substrates containing water can be dried quickly, uniformly, efficiently and with optimal quality results by means Radio Frequency, over the years STALAM has developed and supplied specific drying equipment suitable to process a wide range of textile, technical-textile and related products.
Some existing applications of STALAM Radio Frequency dryers include:



- the drying of bleached hydrophilic cotton fibres for medical, sanitary and cosmetic use;
- the drying of raw or processed/dyed hemp, flax, ramie, coir, jute and sisal fibres;
- the drying of wet-spun linen yarns on spools, either off-line on suitable pin trays or in-line with the spinning frame;
- the low temperature drying of raw silk hanks after the wetting/oiling process, before twisting;
- the drying of silk cocoons and silk wastes after carbonising;
- the drying of dyed elastic bands, narrow fabrics, lace, strings, cords, etc.;
- the drying of dyed garments, sweaters, sport socks, leather items, etc. specifically when the tumbling effect is not desired;
- the drying of woollen felts for clothing or industrial use, after impregnation, in the form of sheets and disks;
- the drying of washed and hydroextracted thread waste and rags;
- the drying and pre-heating of defective or waste synthetic fibres (mainly PA, PES, PP) after washing, to be recycled in pellet form, off-line or in-line with the extrusion equipment;
- the drying of short-cut, high-porosity reinforcement fibres (cellulose, aramide, glass, etc.).

Technical data

Technical specifications

Work frequency of RF generators	(I.S.M.) 27.12 MHz +/-0.6%
Cooling system of RF generators	Single-unit RF dryers: water or air *RF, RFA. RF ECO+, LTRF, RFA/S, RFA/S COMBO* modular dryers: water or air *TCRF* batch dryers: air *RFA/HP, RF/C, RF/T* dryers: air
Evaporation capacity of dryers	*RF, RFA, RF ECO+, RF/C, RF/T*: 1.2 ÷ 1.4 kg(H2O)/kW(RF)h *TCRF, RFA/HP*: 1.4 ÷ 1.8 kg(H2O)/kW(RF)h *LTRF*: 1.4 ÷ 1.7 kg(H2O)/kW(RF)h *RFA/S*: 1.5 ÷ 1.9 kg(H2O)/kW(RF)h *RFA/S COMBO*: 1.6 ÷ 2.2 kg (H2O)/kW(RF)h

Main optional devices

- Prolonged inlet and outlet tables;
- indicators of “empty” inlet and outlet tables;
- metaldetector on the inlet table;
- lateral protection teflon guards;
- internal air blowers;
- suction - cooling device in the outlet;
- automatic multi-position upper electrode;
- manual or automatic fire extinguishing system (UV or smoke-detector).

STALAM
Radio Frequency Equipment

After-sale services

Supplying and successfully installing a Radio Frequency equipment is, at the same time, the result and the starting point of several pre- and after-sale activities. STALAM strives to establish strong, trustworthy, mutually rewarding and long-term business relationships with its prospect and existing customers by providing them the best possible technical assistance, aimed first to prove the outstanding benefits of the RF technology and then to make sure that the equipment provided will maintain its performance and profitability in the years to come.

Spare parts available on stock

Availability in stock of at least 80% of standard mechanical and electrical components of the RF equipment manufactured in the last 20 years.

Fast shipping

Shipment of spare parts available in stock at the latest within 24 hours from the order (generally, orders confirmed before h. 12:00 noon time are dispatched through selected courier services on the same day before h. 16:00). Spare parts not available in stock are manufactured in-house or procured in the shortest possible time.

On-call assistance

On-call assistance through a dedicated phone line, or via fax / E-mail, by an English speaking trouble-shooting engineer available full time during office working hours.

Prompt on-site assistance

On-site mechanical, electrical & software assistance by servicing engineers departing from STALAM or its overseas servicing centres within 12-48 hours for interventions within Europe and 48-72 hours for interventions outside Europe.

STALAM
Radio Frequency Equipment

Test & Demo facilities

The STALAM testing lab is an integral part of our R&D and engineering departments. Through testing and analysis of the results, our experts can study in details the characteristics and behaviour of a product submitted to the Radio Frequency field, thus assessing the technical and economic feasibility of drying and thermal processes on specific substrates, based on customers' requirements. In the same way, our engineers can identify the best process parameters and the technical specifications of the most suitable RF equipment to perform such processes.

STALAM's R&D lab is equipped with a wide range of pilot machines available for product testing and demos. Such tests and demos can be performed in our company or at our customers' facilities as appropriate. Some of these machines are also available for rental for product and process development purposes or systematic testing sessions. Our highly qualified technical team will assist customers to develop better, more profitable and innovative process solutions.

Contacts

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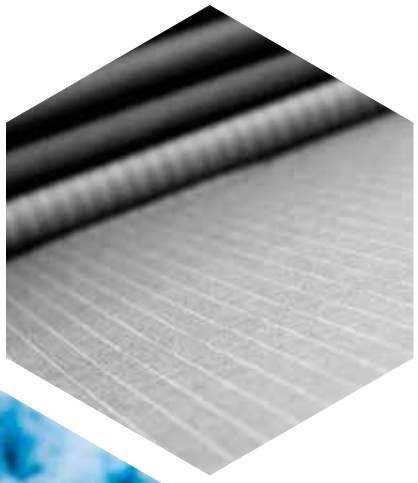
Radio Frequency Equipment



STALAM

Radio Frequency Equipment


BERTA 36


STALAM

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Date: 01.01.2025

Company:

Price List 2025: VEGA-NEXUS BALL-WINDING MACHINES

Semiautomatic ball-winding machine SCT.240 VEGA
brand new - suitable for the production of balls in wool, acrylic cotton, fancy and mixed yarns and similar fibres from 20 to 150 grs **with maximum length of cm. 21 and with maximum diameter of 15 cm.**

Semiautomatic ball-winding machine SCT.280 VEGA
brand new - suitable for the production of balls in wool, acrylic cotton, fancy and mixed yarns and similar fibres from 50 to 270 grs **with maximum length of cm. 26 and with maximum diameter of 20 cm.**

Semiautomatic ball-winding machine SCT.200 NEXUS
brand new - suitable for the production of balls in wool, acrylic cotton, fancy and mixed yarns and similar fibres from 10 to 100 grs **with maximum length of cm. 17 and with maximum diameter of 10 cm.**

Semiautomatic ball-winding machine SCT.240 NEXUS
brand new - suitable for the production of balls in wool, acrylic cotton, fancy and mixed yarns and similar fibres from 20 to 150 grs **with maximum length of cm. 21 and with maximum diameter of 15 cm.**

Semiautomatic ball-winding machine SCT.280 NEXUS
brand new - suitable for the production of balls in wool, acrylic cotton, fancy and mixed yarns and similar fibres from 50 to 270 grs **with maximum length of cm. 26 and with maximum diameter of 20 cm.**

CE declaration of conformity in accordance to

2006/95/EC	The Low Voltage Directive
2004/108/EC	The Electromagnetic Compatibility Directive
2006/42/EC	The Machinery Directive

and is in conformity with the applicable requirements of the following documents

EN 60204-1: 2006	Safety of machinery. Electrical equipment of machines.

Air-compressor NOT included.

CAMPANINI
engineering s.r.l.

CAMPANINI ENGINEERING s.r.l.
Office: 4, via Borrini – Pernate 28100 Novara – Italia
Production Site: via Carovella 5 - 28066 Galliate (Novara) – Italia
C.F./PARTITA IVA-VAT.NO. IT02616500035

Phone: +39-(0)321-636009
E-mail: info@campaninitextile.com
Web-Site: www.campaninitextile.com

VEGA & NEXUS SEMIAUTOMATIC BALL-WINDING MACHINES	
PRICE LIST 2025 - WORLDWIDE – EX-WORKS NOVARA (ITALY)	Price list (Euro)
validity: up to 31.12.2025	
VEGA Semiautomatic Ball-Winding Machine	SCT.240 and 280
with 10 winding positions	41.340,00
with 12 winding positions	44.520,00
with 16 winding positions	50.880,00
with 20 winding positions	55.120,00
NEXUS Semiautomatic Ball-Winding Machine	SCT.200, 240 and 280
with 10 winding positions	55.000,00
with 12 winding positions	58.000,00
with 16 winding positions	67.000,00
with 20 winding positions	72.000,00
including	
cone holder reel	
no. 2 sets of mandrels (sizes and types to be defined)	
Not included in the above mentioned prices	
Transport	
Packing	
Installation charges	
Options	
Automatic inner-core positioner for expansion mandrels	
for 10 winding positions	4.800,00
for 12 winding positions	4.800,00
for 16 winding positions	5.800,00
for 20 winding positions	5.800,00
Electronic yarn feeder with Pneumatic yarn insertion device	
for 10 winding positions	5.500,00
for 12 winding positions	5.500,00
for 16 winding positions	7.700,00
for 20 winding positions	7.700,00
Self-adaptive yarn break sensor control	
for 10 winding positions	4.000,00
for 12 winding positions	4.000,00
for 16 winding positions	5.000,00
for 20 winding positions	5.000,00

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Pneumatic yarn insertion device (solo per gomitoltrici VEGA - per gomitolatrici Nexus già incluso nel prezzo	
for 10 winding positions	800,00
for 12 winding positions	900,00
for 16 winding positions	1.100,00
for 20 winding positions	1.200,00
Conveyor belt **(driven by inverter)**	
for 10 and 12 winding positions	4.000,00
for 16 and 20 winding positions	4.000,00
Pneumatic creel for cakes	1.900,00
MANDRELS	
FR Type - Rigid Collapsible Expansion Mandrel	380,00 (each)
FU Type - SPRING Collapsible Expansion Mandrel	190,00 (each)
C Type - Cross Expansion Mandrel for tubes	230,00 (each)
R Type - Rigid Mandrel with balls for tubes (any sizes)	50,00 (each)
EX Type - Exagonal Rigid Mandrel (and sizes)	40,00(each)

COMMERCIAL CONDITIONS:

SET-UP AT THE CUSTOMER'S MILL AND TRAINING:

All of our Vega & Nexus balling machines are manufactured with plug&play technology.
Furthermore Nexus machine will be sent to the customer with the desired ball program already memorized.
It is enough to assemble the creel and bobbing holder, connect the machine to customer's power and air pressure supply.
Just load the program and fixed the proper mandrels and the machine is ready to work.

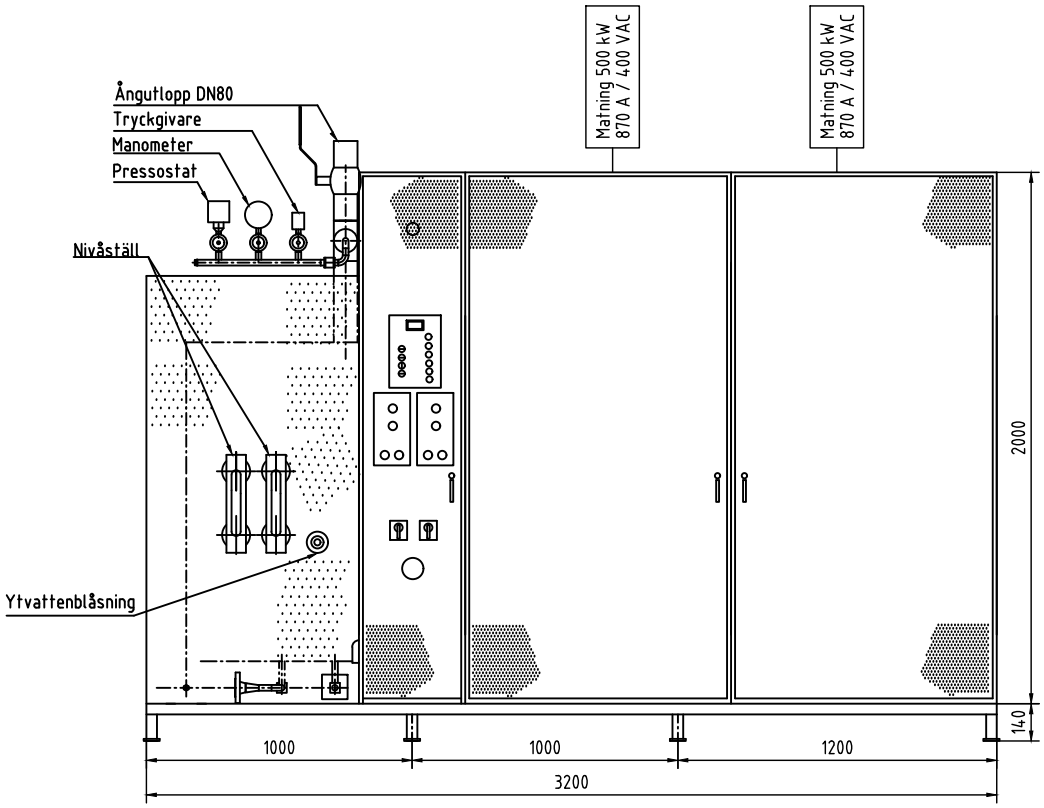
If Required: technician, travel and accommodation expenses at customer's charge.

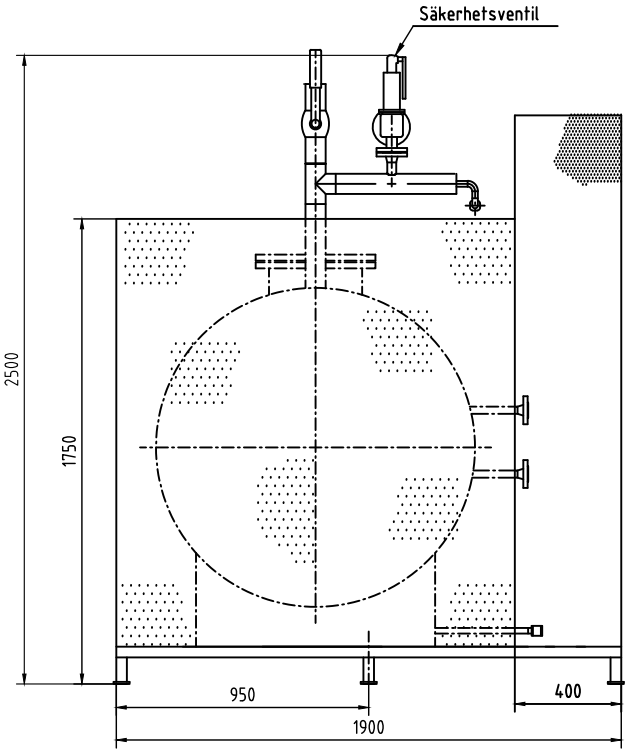
Delivery time: approx. 60/120 days from receiving your order .

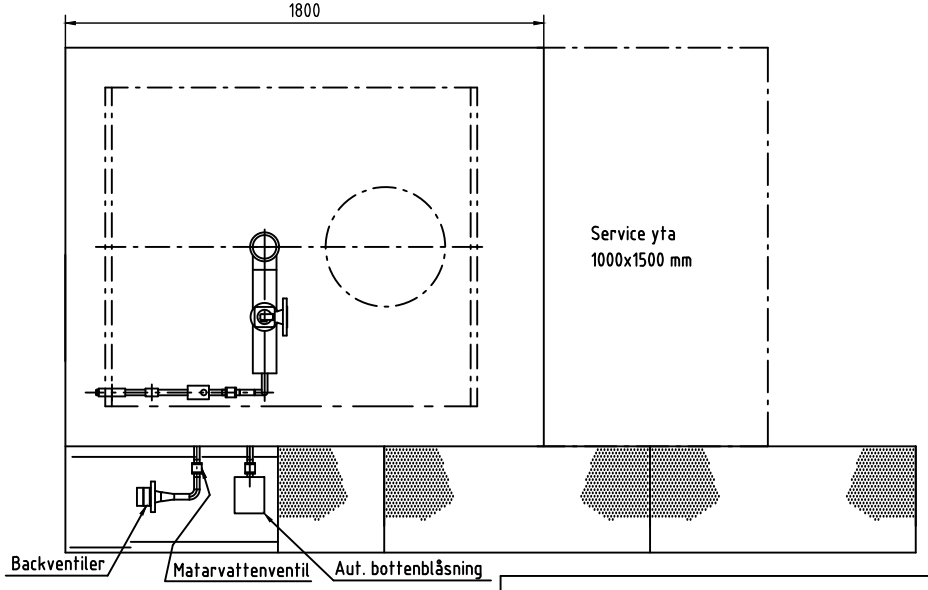
Guarantee: 12 months on all the parts excluding worn out spare parts.

Payment: 30% down payment
70% upon advise of machine ready

CAMPANINI ENGINEERING S.R.L.
Ivano Campanini
Chief Executive Officer (CEO)
Mobile: +39-338-7112179 - Whatsapp







Preliminär EJ för tillverkning

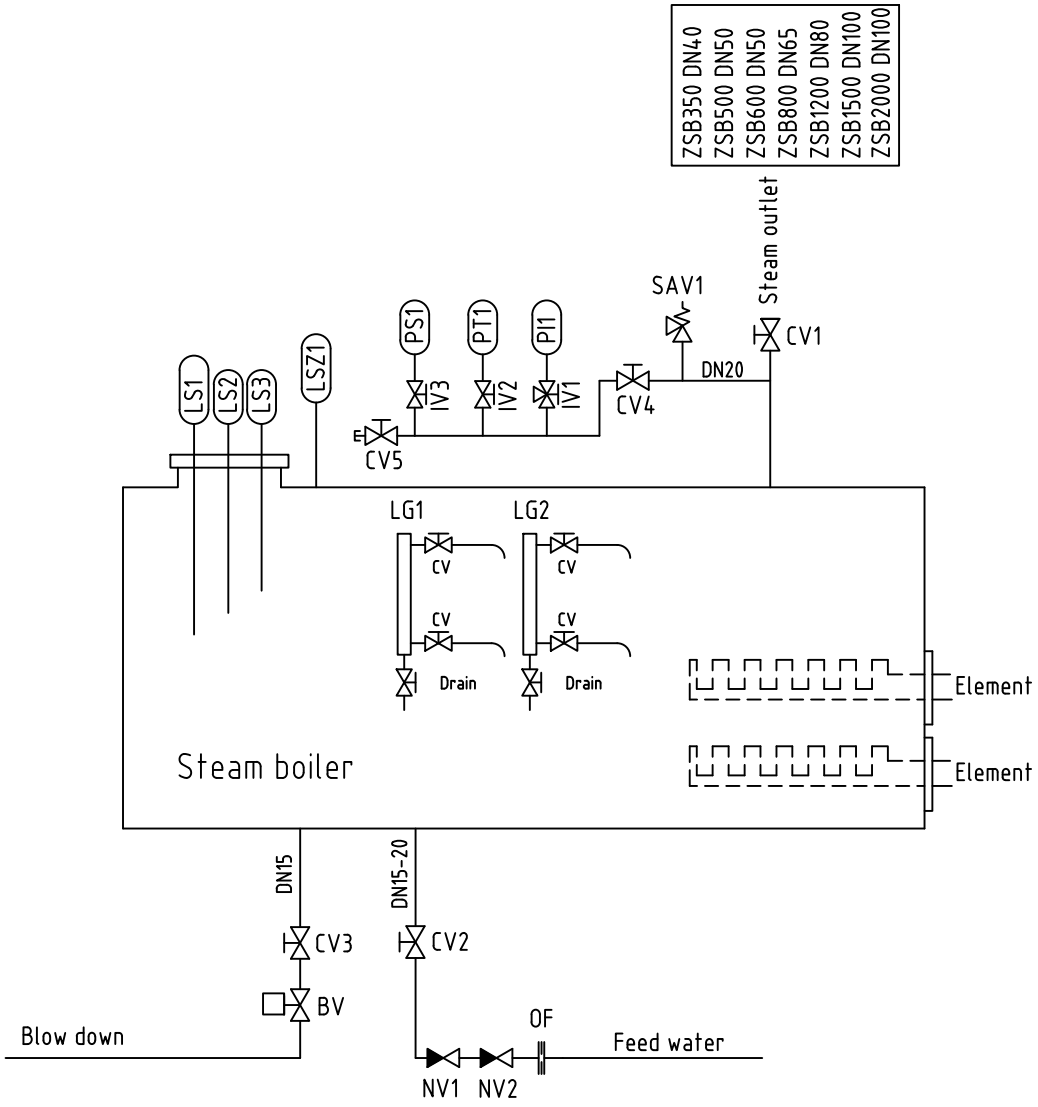
ELEKTRISK ÅNGPANNA TYP ZSB1000
KONSTRUKTIONSTRYCK 16 BAR
KONSTRUKTIONSTEMPERATUR 204°C
DRIFTTRYCK 12 BAR
VIKT FYLLD ~2500 kg

AUTOMATIKSKÅP IP54
CHASSI FÖR PANNAN IP44

Pos	Ant	Benämning	Ritning Material	Dimension Anmärkning
		ELEKTRISK ÅNGPANNA TYP ZSB1000 EFFEKT 1000 kW SPÄNNING 400/690 V MÅTTSKISS		ZANDER&INGESTRÖM

Godkänd	Ritad	Granskad	Skala	Ritn. nr.
	161028 AF	161028 BE		E-30696

Rev.	Utförd	Granskad	Godkänd



OF	Orifice	DN25	
BV	Blow-down valve	DN15	With Actuator
LS2	Level electrode	-	Stop feed water pump
LS1	Level electrode	-	Start feed water pump
LSZ1	Level electrode	-	Stop boiler
PT1	Pressure transmitter	DN15	0-10 bar / 4-20 mA
PS1	Pressure switch	DN15	Stop boiler
PI1	Pressure gauge	DN15	0-15 bar
LG2	Level gauge	DN20	
LG1	Level gauge	DN20	
SAV1	Safety valve	DN20-32 Flange PN40	
IV3	Instrument valve	DN10 Thread	
IV2	Instrument valve	DN10 Thread	
IV1	Instrument valve	DN10 Thread	
NV2	Non return valve	DN25 Flange PN40	
NV1	Non return valve	DN25 Flange PN40	
CV4	Closing valve	DN20- Weld	Ball valve
CV3	Closing valve	DN15- Weld	Ball valve
CV2	Closing valve	DN15-20 Weld	Ball valve DN20 for ZSB1500
CV1	Closing valve	DN40- Weld	Ball valve

Pos	Ant	Benämning	Ritning Material	Dimension Anmärkning

ELECTRIC STEAM BOILER
TYPE ZSB350-2000 POWER 350-2000 kW
PI&D

ZANDER&INGESTRÖM

Godkänd	Ritad	Granskad	Skala	Ritn. nr.
171128 BE	171128 EL	171128 EL	%	E-30732

Rev.	Utförd	Granskad	Godkänd

UNIVERSAL ATMOSPHERIC DYEING LAB

** code 323P1 **

Laboratory unit for dyeing textile natural, synthetic fibres or blends, that can be used for atmospheric dyeing (+98°C). The instrument is endowed with an innovative heating system for the dyeing bath, without using polyethylene glycol, assuring a high reproducibility of samples in respect to the production, mainly when using reactive or acid dyeing agents.

Unit with one dyeing head controlled by a microprocessor equipped with a graphic display and a capability to store up to 60 full dyeing programs, each one with 30 steps.

Samples as flocks, hanks, cone, fabric are dyed inside a glass device with inner diameter 180 mm and high 250 mm. Samples are in standing position; the dyeing bath is moved alternatively along the external/internal flow direction by the reversible pump.

Apparecchio da laboratorio di tipo universale adatto per la tintura atmosferica (+98°C) di fibre, filati, tessuti, naturali, sintetici e in mista. Strumento dotato di innovativo sistema di riscaldamento elettrico della vasca di tintura, senza l'utilizzo di olio poliglicole, che garantisce, soprattutto con i coloranti reattivi ed acidi, un alto livello di riproducibilità dei campioni con la produzione.

Modello a una unità di tintura gestita da un microprocessore con display grafico del diagramma di tintura capace di 60 programmi di 30 passi ciascuno.

I campioni, in forma di fiocco, matassa, rocca, pezza, sono tinti all'interno del contenitore di vetro con diametro utile 180 mm e altezza utile 250 mm. Il materiale da tingere è in posizione statica ed il bagno di tintura circola alternativamente con un flusso sia esterno/interno, che interno/esterno, per mezzo della pompa reversibile.

MESDAN

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UNIVERSAL ATMOSPHERIC DYEING LAB

** code 323P1 **

CARATTERISTICHE GENERALI	GENERAL FEATURES
Apparecchio con 1 posizione lavoro	Instrument with 1 fully working position
Contenitore in vetro, capacità litri 6, Ø interno 180 mm, h utile 250 mm	Glass beaker, capacity 6 liters, inner Ø 180 mm, free h 250 mm
In grado di tingere rocche soffici fino a 1,0 – 1,5 kg max	Capability to dye whole soft cones of 1.0 – 1.5 kg max
In grado di tingere fibre fino a 800 – 1.000 grammi max	Capability to dye staple fibres up to 800 - 1.000 grams max
Regolazione e controllo della temperatura bagno, max +98°C, tramite microprocessore con display grafico del diagramma di tintura e capacità di memorizzare 60 programmi di tintura di 30 passi ciascuno.	Bath temperature regulation, max +98°C, and control by microprocessor equipped with a graphic display and a capability to store up to 60 full dyeing programs, each one with 30 steps
Elettrovalvola di caricamento acqua	Electrovalve for water inlet
Pompa di circolazione bidirezionale con regolazione flusso.	Bidirectional Circulating pump with flux regulation valve
Apparecchio e porta materiali in acciaio inox	Instrument and sample holders built of stainless steel.
Riscaldamento indiretto a mezzo resistenza elettrica	Indirect heating by means of electric resistance
Raffreddamento automatico indiretto ad acqua con elettrovalvola	Automatic indirect cooling with water by means of electrovalve
Termostato di sicurezza	Safety thermostat
Valvola manuale di scarico acqua	Manual valve for water drain
Lavaggio in continuo in automatico	Automatic continuous washing
Apparecchio costruito in acciaio inox.	Unit made of stainless steel
Alimentazione elettrica: 3 x 400V trifase + N – 50/60 Hz	Power supply: 3 x 400V Three-phase + N – 50/60 Hz
Dimensioni (L x P x H): 800 x 650 x 1350	Dimensions (L x W x H): 800 x 650 x 1350
Peso netto: 90 kg	Net weight: 90 kg
OPTIONAL	**OPTIONAL**
Cestello portafiocco, code 323P1.164	Staple fibres sample holder, code 323P1.164
Subbio porta tessuto, code 323P1.162	Fabric on beam sample holder, code 3231P.162
Portamatassa, code 323P1.166	Hank sample holder, code 323P1.166
Portarocca, code 323P1.168	Cone sample holder, code 323P1.168

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UNIVERSAL ATMOSPHERIC DYEING LAB

** code 323P1 **

Bidoncino da 150 cc, per l'introduzione in automatico di prodotti chimici ausiliari nel bagno di tintura, code 323P1.368	Tank of 150 cc capacity, for the automatic introduction of chemicals products in the dyeing bath, code 323P1.368
Scarico automatico del bagno di tintura, code 323P1.370	Automatic dyeing bath drain, code 323P1.370
*Photographs and descriptions of the present leaflet have to be considered as purely indicative and not binding. *Le immagini e le descrizioni del presente catalogo sono da ritenersi puramente indicative e non vincolanti.	

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www.mesdan.com

SETEX Schermuly textile computer GmbH • 35794 Mengerskirchen • Germany

Holma Helsingland
Linvägen 8
824 60 Forsa

Sweden

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Fax: +49.6476.9147-31

sales@setex-germany.com
http://www.setex-germany.com

16.12.2025

Our Ref.: AD_241128_005V2

QUOTATION: ***OrgaTEX MES & Control system conversion of dyeing machines***

Dear Sirs,

With reference to your inquiry, we would like to take the opportunity to submit our quotation according to the conditions stated as well as to our general terms and conditions:

OrgaTEX Professional *Central Machine Management Software*

Including: OrgaTEX Recipe and stock Management
Installation, setup and training

Containing the following licenses:

- 5 x licence for dyeing machine with SECOM controller

Control system conversion E390$_{12X}$ with CompACT components

- 5 x E390$_{12X}$ controller with CompACT PLC on Henriksen, Scholl and Thies dyein machines

This quote is based on our general terms and conditions.
Hoping that our offer meets your demands, we are looking forward to serving you.

Kind regards,
i.V. Arnd Decker

Hauptstraße 23
35794 Mengerskirchen
Germany
Tel.: +49 6476 9147-0
Fax: +49 6476 9147-31

Geschäftsführer/
Managing Director:
Rüdiger Mittwollen
Stephan Saam

Amtsgericht Limburg
HRB 3200
USt-IdNr.: DE811581433
St-Nr.: 020 225 71418

EURO: Kreissparkasse Weilburg
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IBAN	Bank-Code	Account-No.	SWIFT-Code
DE19 5115 1919	0131 1111 14		HELADEF1WEI
DE61 6005 0101	0008 0371 54		SOLADEST
DE07 6005 0101	7482 1548 76		SOLADEST

Item	Qty.	Product	Price in EURO

1 OrgaTEX Professional Software

1.1 1 OTS01510

OrgaTEX.MES Professional X2

Software for process development, production scheduling and monitoring

Features:

- Program-, treatment- and process editor
- Bulk and process orders
- Graphical realtime batch scheduling
- Monitoring deadlines
- Production online-status
- Online process analyzer
- Wide variety of reports and Management key-numbers
- Internet remote maintenance

Scope of delivery:

- OrgaTEX USB drive
- OrgaTEX hardlock with
  - release to run the OrgaTEX production module for dyehouse
  - release to use OrgaTEX latest version
  - license to run 2 named workstations
- OrgaTEX License document
- Database Microsoft® SQL Server ® 2022 Standard SETEX Runtime Edition
  - 1 Server License
  - 2 Client Licenses (CAL)

1.2 OTM01101/OTM01105

OrgaTEX Module Recipe management and calculation

This module manages the calculation of the batch recipes as well as the product data management of chemicals and dyestuffs**.** In combination with the OrgaTEX Software module PRODUCTION the production recipe will be created and printed.

- modern handling, expanding of sub recipes
- systematically recipe & process management
- calculation preview for cross-checking
- process recipe: separation of dyestuff-recipe and process
- flexible recipe structure: as simple as required, as complex as necessary
- simple formulas can be entered easily
- Most formulas can be created by operators without knowing of programming language
- Graphical overview of stock movement etc.

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Managing Director:
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Item	Qty.	Product	Price in EURO
1.3	1	**Stock and Inventory Module as extension for the OrgaTEX Production Recipe** consisting of: ▪ Definition of specific stock conditions (minimum, optimum drum capacity, supplier, prices etc.) for each product ▪ Display of available and dedicated amounts for each product ▪ Automatic product quantity update after batch completion (without OrgaTEX Weighing Station = production recipe amount -> debited amount) ▪ Manual inward-and outward stock movement ▪ Low stock alert and automatic printout of reorder lists ▪ Report of stock value with current price and predefined consumption reports ▪ Display of all dyelots by specific product	
1.4	5	OTM01720 **OrgaTEX "Machine App"** OrgaTEX Pro Machine license for the online connection of dyeing machines with SECOM controls without access to a dispensing system, incl. SETEX Runtime Edition license *(Microsoft® SQL CAL RUNTIME 2022 All Lng Embedded Volume License)*	
1.5	1	KSA30006 **Installation and configuration** of the Windows Server Software and the OrgaTEX on the PCs provided by the customer - MS SQL Database - OrgaTEX Applications Software with all settings etc. - Workstations - UPS setup for auto shutdown .	
1.6	1	KSA30006 **Connection and setup of the 5 machine controller in OrgaTEX** - checking the network connectors and communication - assign each machine/station in OrgaTEX - backup of configuration and PLC program	
1.7	1	KSS40001 **TRAINING 1** **Training into the basic operation of the OrgaTEX modules** (Treatment-and Procedure Editor, Production Scheduler, Online Status and Batch Logger, Production Recipe Module, Stock and Inventory)	
1.8	1	KSS40001 **TRAINING 2 – via remote** **Extended operation of the OrgaTEX modules** **approx. 4-6 weeks after commissioning and basic training** (Production calendar, Batch Report, Machine Report and Remote Support, Error handling)	

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Item	Qty.	Product	Price in EURO

Annual Maintenance Contract “PLUS light” package

1.9 1 KSP10009

OrgaTEX Annual Maintenance Contract

- Helpdesk to call or e-mail to SETEX (during regular office hours only)
- Access to OrgaTEX Knowledge base
- Access to SETEX Service Portal for protected remote access to controller
- Annual OrgaTEX Software upgrade via remote
- Remote introduction into the new OrgaTEX release/verson

Important Note:	
	***- Valid for 1 year from the commissioning and use of the OrgaTEX for production.*** ***- From the second year of operation of the OrgaTEX, costs of €5.592,00 will be incurred for the maintenance contract “PLUS LIGHT”.***

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Item	Qty.	Product	Price in EURO

2 Controller upgrade on Henriksen Gru 35

We will remove the controller and install the new controller E390$_{12x}$ into the existing electrical panel

2.1 1 STS98001

SECOM E390$_{12x}$

Industrial multifunction controller for discontinuous processes in the textile dyeing and finishing:

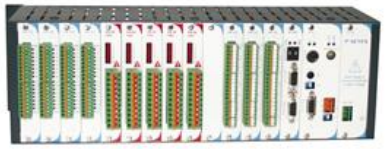
- 12“ TFT Touch Screen
- Swipe technology
- Integrated Webserver
- Integrated OPC-UA Client
- Ethernet connection for OrgaTEX
- Ethernet connection for SETEX PLC system for external I/O’s and fieldbus connection
- Embedded Linux operating system

2.2 1 STC01003

CompACT Rack CR16 PLC

Basic unit (16 Slot) with power supply PS80.
With inbuilt components:

- 1 x CPU CP34
- 2 x DM160
- 3 x DM016
- 1 x AM222
- 9 x Cover plate
- Ethernet Cat7 Patch cable, 5m



2.3 1 KSP10009

Engineering for the dyeing machine
According to the electrical diagrams and the information SETEX creates a software to run the machine in the most efficient automatic mode
- Creation of PLC software
- Creation of Machine Configuration
- In/Output connection list for PLCKSP10009

Adaption of electrical diagrams
according to the new setup with Setex control system for all relevant parts of the diagram

2.4 1 KSA30006

Installation and setup of new machine controller
- replacement of existing controller and CPU
- function test of all machine functions
- running a trial batch

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Item	Qty.	Product	Price in EURO

3 Controller upgrade on Scholl Yarn HT 130Kg

We will remove the controller and install the new controller E390$_{12x}$ into the existing electrical panel

3.1 1 STS98001

SECOM E390$_{12x}$

Industrial multifunction controller for discontinuous processes in the textile dyeing and finishing:

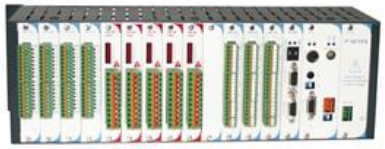
- 12“ TFT Touch Screen
- Swipe technology
- Integrated Webserver
- Integrated OPC-UA Client
- Ethernet connection for OrgaTEX
- Ethernet connection for SETEX PLC system for external I/O’s and fieldbus connection
- Embedded Linux operating system

3.2 1 STC01003

CompACT Rack CR16 PLC

Basic unit (16 Slot) with power supply PS80.
With inbuilt components:

- 1 x CPU CP34
- 3 x DM160
- 3 x DM016
- 1 x AM222
- 8 x Cover plate
- Ethernet Cat7 Patch cable, 5m



3.3 1 KSP10009

Engineering for the dyeing machine
According to the electrical diagrams and the information SETEX creates a software to run the machine in the most efficient automatic mode
- Creation of PLC software
- Creation of Machine Configuration
- In/Output connection list for PLCKSP10009

Adaption of electrical diagrams
according to the new setup with Setex control system for all relevant parts of the diagram

3.4 1 KSA30006

Installation and setup of new machine controller
- replacement of existing controller and CPU
- function test of all machine functions
- running a trial batch

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Item	Qty.	Product	Price in EURO

4 Controller upgrade on Scholl Yarn HT 300Kg

We will remove the controller and install the new controller E390$_{12x}$ into the existing electrical panel

4.1 1 STS98001

SECOM E390$_{12x}$

Industrial multifunction controller for discontinuous processes in the textile dyeing and finishing:

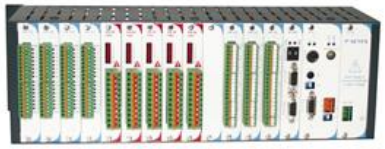
- 12“ TFT Touch Screen
- Swipe technology
- Integrated Webserver
- Integrated OPC-UA Client
- Ethernet connection for OrgaTEX
- Ethernet connection for SETEX PLC system for external I/O’s and fieldbus connection
- Embedded Linux operating system

4.2 1 STC01003

CompACT Rack CR16 PLC

Basic unit (16 Slot) with power supply PS80.
With inbuilt components:

- 1 x CPU CP34
- 2 x DM160
- 3 x DM016
- 1 x AM222
- 9 x Cover plate
- Ethernet Cat7 Patch cable, 5m



4.3 1 KSP10009

Engineering for the dyeing machine
According to the electrical diagrams and the information SETEX creates a software to run the machine in the most efficient automatic mode
- Creation of PLC software
- Creation of Machine Configuration
- In/Output connection list for PLCKSP10009

Adaption of electrical diagrams
according to the new setup with Setex control system for all relevant parts of the diagram

4.4 1 KSA30006

Installation and setup of new machine controller
- replacement of existing controller and CPU
- function test of all machine functions
- running a trial batch

Hauptstraße 23
35794 Mengerskirchen
Germany
Tel.: +49 6476 9147-0
Fax: +49 6476 9147-31

Geschäftsführer/
Managing Director:
Rüdiger Mittwollen
Stephan Saam

Amtsgericht Limburg
HRB 3200
USt-IdNr.: DE811581433
St-Nr.: 020 225 71418

EURO: Kreissparkasse Weilburg
EURO: LBBW - RLP-Bank - BW-Bank
USD: LBBW - RLP-Bank - BW-Bank

IBAN	Bank-Code	Account-No.	SWIFT-Code
DE19	5115 1919	0131 1111 14	HELADEF1WEI
DE61	6005 0101	0008 0371 54	SOLADEST
DE07	6005 0101	7482 1548 76	SOLADEST

Item	Qty.	Product	Price in EURO

5 Controller upgrade on Henriksen Gru 150

We will remove the controller and install the new controller E390$_{12x}$ into the existing electrical panel

5.1 1 STS98001

SECOM E390$_{12x}$

Industrial multifunction controller for discontinuous processes in the textile dyeing and finishing:

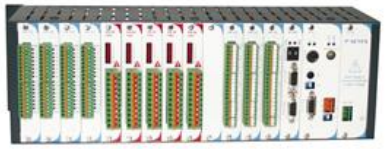
- 12“ TFT Touch Screen
- Swipe technology
- Integrated Webserver
- Integrated OPC-UA Client
- Ethernet connection for OrgaTEX
- Ethernet connection for SETEX PLC system for external I/O’s and fieldbus connection
- Embedded Linux operating system

5.2 1 STC01003

CompACT Rack CR16 PLC

Basic unit (16 Slot) with power supply PS80.
With inbuilt components:

- 1 x CPU CP34
- 3 x DM160
- 3 x DM016
- 1 x AM222
- 8 x Cover plate
- Ethernet Cat7 Patch cable, 5m



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DE61	6005 0101	0008 0371 54	SOLADEST
DE07	6005 0101	7482 1548 76	SOLADEST

Item	Qty.	Product	Price in EURO

6 Controller upgrade on Thies Duo Bloc Yarn 30Kg

We will remove the controller and install the new controller E390$_{12x}$ into the existing electrical panel

6.1 1 STS98001

SECOM E390$_{12x}$

Industrial multifunction controller for discontinuous processes in the textile dyeing and finishing:

- 12“ TFT Touch Screen
- Swipe technology
- Integrated Webserver
- Integrated OPC-UA Client
- Ethernet connection for OrgaTEX
- Ethernet connection for SETEX PLC system for external I/O’s and fieldbus connection
- Embedded Linux operating system

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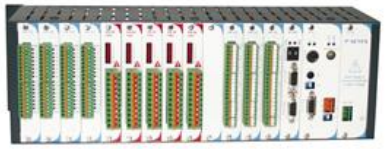

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Installation and setup of new machine controller
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DE07	6005 0101	7482 1548 76	SOLADEST

Item	Qty.	Product	Price in EURO
8		**Travelling and living expenses**	
8.1	1	KSA30011 **Travelling time**	
8.2	1	KSR20002 **Flight ticket/Travelling costs** Frankfurt – Stockholm – Frankfurt	
8.3	1	KSR20004 **Pocket money for the engineer**	
8.4	1	KSR20006 **Hotel accommodation**	
		Total project price OrgaTEX Software, 5 x control system replacement, installation, training and living expenses: consisting of Item 1.1 – Item 8.4	**109.082,00 €**

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DE61	6005 0101	0008 0371 54	SOLADEST
DE07	6005 0101	7482 1548 76	SOLADEST

Sales and Delivery Conditions

Pricing:	Our prices apply to shipment FCA Hauptstraße 23, 35794 Mengerskirchen (Incoterms 2020®)
	Delays in delivery, commissioning or training, as a consequence which is not in SETEX's responsibility, must be communicated immediately. Additional costs caused by such delays will be charged at regular SETEX service rates after consultation with the affected party responsible.
	Not included: *(to be arranged and paid by the customer)* - local transportation - airport pickup and drop - transportation from and to hotel
General Terms and conditions / data protection:	Our general sales Terms and Conditions apply, available at [www.setex-germany.com/en/terms-and-conditions]. We hereby expressly object to any conflicting or deviating terms and conditions of the buyer.
	All personal data processed within the scope of this contract are subject to the provisions of our Privacy Policy, accessible at [www.setex-germany.com/en/data-privacy]. This Privacy Policy is an integral part of this contract. Both parties commit to comply with the regulations set out therein.
Payment:	100% payment in advance to the following account: **Bank name:** **Kreissparkasse Weilburg** **Bank address:** **Odersbacher Weg 1, 35781 Weilburg** **Account no.:** **131 111 114** **Bank code:** **511 519 19** **SWIFT code:** **HELADEF1WEI** **IBAN-No.:** **DE19 5115 1919 0131 1111 14**
Delivery conditions:	Delivery according to our delivery conditions to be sent to you upon request
Delivery time:	approx. 6-8 weeks after receipt of payment.
Installation time:	to be agreed with our project management.
Validity of the offer:	This offer is valid for a period of 90 days from date of issue.

We hope that our terms will be acceptable to you and look forward to the pleasure of serving you.

With kind regards

SETEX
Schermuly textile computer GmbH

Stephan Saam

i.V. Arnd Decker

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OrgaTEX X3, X2, X1 und v10 PC Hardware- und Software-Empfehlung

Vom Kunden bereitgestellte Hard- und Software für OrgaTEX sollte den nachfolgenden Spezifikationen entsprechen. Neu angeschaffte Geräte dürfen diese Spezifikationen durchaus übertreffen, um zukünftige Programm-aktualisierungen zu unterstützen.
Untenstehende Aufstellung ist nur für **aktuelle SETEX (CE-basierte) Steuerungen gültig.**

OrgaTEX Dateiserver

Windows Server 2025 ✓
Windows Server 2022 ✓
Windows Server 2019 ✓
Windows Server 2016 ✓

- Betriebssystem Windows Server 2025/2022/2019/2016 Standard-Edition
- Ausreichende Anzahl von Windows CAL Lizenzen
- CPU Quad Core, 3,2 GHz (x64 CPU)
- Festplatten/SSD: 6 x 300 GB SAS 15k (5x Raid 5, 1x Hot Spare) oder gleichwertiges System mit SSDs
- 16 GB Hauptspeicher (RAM) oder mehr
- Netzwerk Adapter 1000 MBit/s
- Redundantes Netzteil
- USV 1000VA/1500VA (für ein sicheres Herunterfahren sollte die Unterstützung ca. 15-20 min betragen)

Die Anzahl der Windows Lizenzen (CAL) hängt von der Anzahl der OrgaTEX Arbeitsplatzrechner, der angeschlossenen Maschinensteuerungen, Wiegestationen und von eventuell angeschlossenen Geräten von Fremdanbietern ab.

Virtueller OrgaTEX Dateiserver

Ausführliche Informationen über die unterstützte Virtualisierungssoftware, Plattformen und Anforderungen sind im Dokument „**OrgaTEX X3 Professional System Requirements**“ enthalten.

OrgaTEX Clients (PC Arbeitsplatzrechner)

Windows 11 ✓
Windows 10 ✓

- Betriebssystem Windows 10/11 Pro
- Leistungsstarke Intel- oder AMD x64-kompatible CPU mit mindestens 4 Kernen
- 8 GB Hauptspeicher (RAM) oder mehr
- Festplatte 250 GByte SSD
- Grafikkarte mit dedizierter GPU (Grafikprozessor Karte)
- **Bildschirm, mindestens 24” bei voller HD-Auflösung (1920 x 1080 px)**
- Empfohlene Option: Zweiter Monitor
- Netzwerk Adapter 1000 MBit/s

OrgaTEX Netzwerk-Verkabelung

Für die Netzwerk-Verbindung zwischen **OrgaTEX Server und OrgaTEX Arbeitsplatz** wird eine 1000Base-T Verkabelung mit **1 GBit/s**, verdrillte Aderpaare (RJ-45), CAT 5 oder höher mit abgeschirmten Kabeln und Steckern benötigt.

Für die Verbindung zwischen den **Maschinensteuerungen und dem OrgaTEX Server** genügt eine Übertragungsgeschwindigkeit von **100 MBit/s** (100BaseTX). Auch hier werden verdrillte Aderpaare (RJ-45), CAT 5 oder höher mit abgeschirmten Kabeln und Steckern empfohlen.

Die Gesamtlänge eines Kabelsegmentes darf 100 Meter nicht überschreiten.

Dieses Dokument gilt für ein System-Setup mit CE-Steuerungen und/oder Steuerungen der 390 Serie.
Detaillierte Informationen über die Unterstützung von DOS-basierten Steuerungen sind im Dokument „**OrgaTEX X3 Professional System Requirements**“ beschrieben.

Kontakt:
SETEX Support
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support@setex-germany.com
www.setex-germany.com

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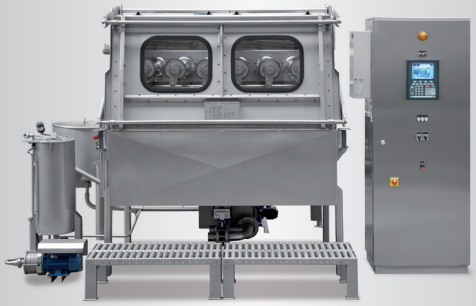


hankMaster

TEXTILMASCHINEN

Thies

www.thiestextilmaschinen.de

hankMaster

Der **hankMaster** wurde speziell für den Bereich des Stranggarnfärbens entwickelt und ergänzt das Programm der Thies-Garnfärbeapparate.

Die neuartige Flottenführung garantiert eine einwandfreie Färbung der Garnstränge aus Wolle, merzerisierter Baumwolle oder Viskose; selbst kritische Garne wie Hochbauschacryl, Polyamid und Seide können veredelt werden.

Um Glanzstellen zu vermeiden, werden die Garnstränge durch eine spezielle Vorrichtung auf den Stäben verlegt. Dazu wird das Garn vom Färbestab angehoben und in einstellbaren Intervallen weiterbewegt. Durch die schonende Behandlung auf dem **hankMaster** erhalten die Garne einen sehr weichen, voluminösen Griff.

hankMaster

The **hankMaster** was developed specially for dyeing hank yarn and expands the selection of Thies yarn dyeing machines.

The new liquor guiding system ensures flawless dyeing of yarn hanks of wool, mercerized cotton or viscose; even difficult yarns such as high-bulk acrylic, polyamide and silk can be processed.

To avoid shiny spots the hanks are moved via a special device on the dye tubes. The yarn is lifted from the dyeing tube and moved onward at adjustable intervals. Thanks to the gentle treatment by the **hankMaster**, the yarn obtains a very soft, voluminous feel.

hankMaster

L'appareil **hankMaster** est spécialement conçu pour la teinture des fils en écheveaux et vient compléter la gamme d'appareils de teinture de fils de Thies.

La circulation innovante des bains garantit une teinture parfaite des écheveaux de fils en laine, en coton mercerisé ou en viscose ; les fils difficiles tels que l'acrylique à voluminosité élevée, le polyamide et la soie peuvent également recevoir un traitement soigné.

Les écheveaux sont placés sur les barres de suspension et sont mis en mouvement à l'aide d'un mécanisme spécial pour éviter des lustrages. Pour ce faire, le fil est soulevé par la barre de teinture puis déplacé à des intervalles réglables. Le traitement soigneux sur l'appareil **hankMaster** confère aux fils une sensation douce et volumineuse au toucher.

Technische Details

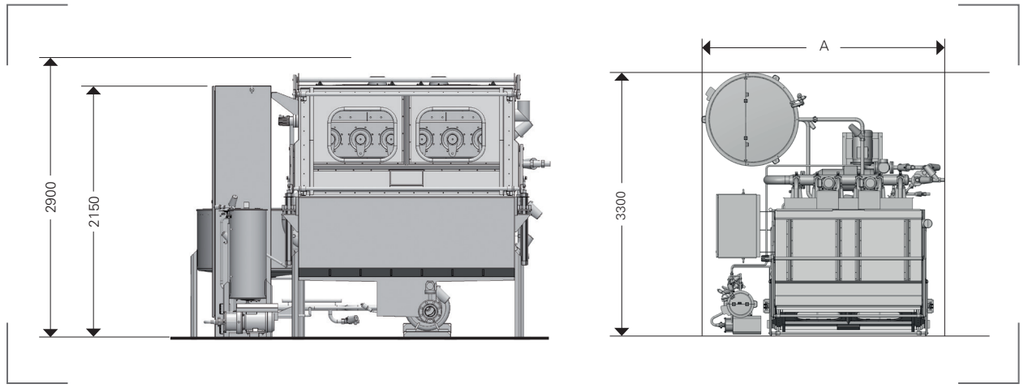
- Alle flottenführenden Teile werden aus **Edelstahl (1.4571, 1.4404)** gefertigt.
- Die Anlage ist mit je 2, 4, 6, 8 oder 10 Stäben lieferbar. Jeder Stab hat eine Länge von 960 mm und kann bis zu 10 kg Warengewicht aufnehmen. Die Stranglänge kann bis 950 mm bemessen sein.
- Die Betriebstemperatur beträgt maximal 98 °C.
- Das Flottenverhältnis beginnt ab 1:5 je nach Einsatzmenge und Warenqualität.
- Eine **analoge Dosierung** übernimmt die Zuführung von Farbstoffen, Chemikalien oder Textilhilfsmitteln aus dem Zusatzgefäß nach Vorgabe der Zeit(-kurve).
- Die Steuerung der Anlagenfunktionen erfolgt mittels eines modernen **Touchscreen-Controllers**.
- Zwei Anlagen gleicher Kapazität können mittels einer **Kupplung** verbunden werden.

Technical Details

- All liquor-carrying parts are manufactured from **stainless steel (1.4571, 1.4404)**.
- The system is available with 2, 4, 6, 8 or 10 tubes. Each tube has a length of 960 mm and can hold up to 10 kg of product. The hank length can be up to 950 mm.
- The operating temperature is maximum 98 °C.
- The liquor ratio starts at 1:5 and depends on the load size and material quality.
- **Analog dosing** facilitates the addition of dyes and auxiliaries from the side tank following programmable curves for time and mode.
- The machine functions are controlled with a modern **touchscreen controller**.
- Two machines of identical capacity can be **coupled** with special pipe work.

Détails techniques

- Toutes les pièces entrant en contact avec les bains sont fabriquées en **acier inoxydable (1.4571, 1.4404)**.
- L'appareil est disponible avec 2, 4, 6, 8 ou 10 barres. Chaque barre possède une longueur de 960 mm et peut supporter une charge allant jusqu'à 10 kg. La longueur d'écheveau peut mesurer jusqu'à 950 mm.
- La température de service maximale est de 98 °C.
- Le rapport de bain minimal est de 1:5; il dépend de la quantité de charge et du type de fil.
- Un **dosage analogique** prend en charge l'apport de colorants, de produits chimiques ou de produits auxiliaires de teinture depuis le récipient d'addition selon les temps programmés (courbe).
- Les fonctions de la machine sont commandées au moyen d'un **programmateur** moderne **à écran tactile**.
- Deux unités de capacité identique peuvent être connectées par **couplage**.



	Number of rods				
	2	4	6	8	10
A	1650	2150	2650	3150	3650

These dimensions are subject to design changes.

THIES WORLDWIDE

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09/2024

TEXTILMASCHINEN Thies
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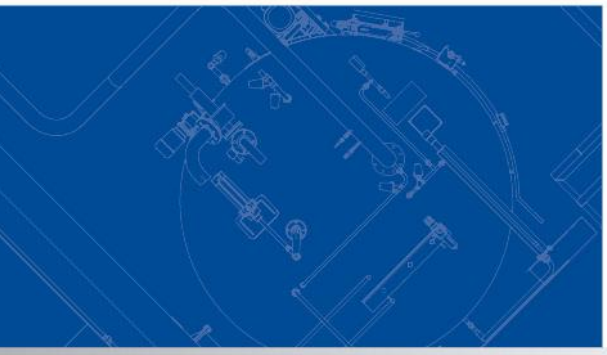
04/2023



QUOTATION

Holma Helsingland AB

Lundvägen 47 A
SE - 82065 Forsa
Sweden

TEXTILMASCHINEN
Thies
www.thiestextilmaschinen.de

Holma Helsingland AB
Lundvägen 47 A
SE - 82065 Forsa
Sweden

Our Ref: vk-bg
Date: 25.11.2024
Customer No.: 110104998

QUOTATION NO. 117016441/CH/AX

Thanking you for your enquiry we are pleased to submit our estimate as per attached General Terms and Conditions of Sale and Delivery, as follows:

1 hankMaster 95/6 - Hank Dyeing Machine 60 kg

Scope and performance as per the attached specification.

Contract Price:

Our prices apply to shipment FCA (Free Carrier) from the delivery plant in Coesfeld (Incoterms® 2020).

Our offer is subject to confirmation and non-binding and shall only be deemed to be agreed upon receipt of our written order confirmation or upon delivery of the goods (conclusion of contract, cf. § 2 (1) and (2) SALES TERMS).

Our prices are quoted in EUR, without VAT-charges.
In case of order we would kindly ask you to state your applicable tax ID-number. When missing this VAT-number we would be legally obliged to issue invoices including VAT.

Payment:

30 % down payment, on order
70 % before delivery, on notification that the purchase object is ready for shipment

Bank data:

	IBAN	SWIFT-Code
Commerzbank AG, Münster	DE09 4004 0028 0322 7808 00	COBA DE FF XXX
Deutsche Bank AG, Münster	DE90 4007 0080 0248 4111 00	DEUT DE 3B 400
HSBC Trinkaus & Burkhardt AG, Düsseldorf	DE89 3003 0880 0300 5310 08	TUBD DE DD XXX
Sparkasse Westmünsterland	DE33 4015 4530 0035 0733 03	WELA DE 3 W XXX
UniCredit Bank AG, Bielefeld	DE17 4802 0086 0003 1088 80	HYVE DE MM 344

A payment is deemed to be properly fulfilled once it has been credited to one of our bank accounts.

Bank charges and fees of any kind arising in the Buyer's country will be paid by the Buyer. Bank charges and fees payable to a bank in the Seller's country will in principle be paid by the Seller.

Delivery:

The delivery time will be defined later, taking into account the current situation of the supply chains when placing the order.

Please find attached our Terms and Conditions with respect to:

- Specification of the purchase object incl. total price
- Performance Data
  Please check the correctness of the Performance Data since they are significant for the accurate design of the plant. Performance Data differing from Thies-Standard might require technical modification regarding the equipment of the machines and/or accessories. Unless otherwise agreed, additional costs arising due to these modifications are not included in our prices.
- Regulations on the dye house water quality (criteria and permissible concentration)
  Because of the obvious corrosion problem, we point out in particular that exclusively Glauber salt (sodium sulfate) is to be used as permitted operating and production medium, not Common salt (sodium chloride) (§ 11 (2) Sales Terms).
- Performance Parameters
- Current Charges for Technicians and Fitters
- General Conditions of Installation and Commissioning
- General Terms and Conditions of Sale and Delivery

Modifications in construction or in form, weight changes, deviations of color, and alterations of the scope of delivery, on the side of the Seller are reserved during the delivery period, provided such alterations or deviations are reasonably acceptable to the Buyer in consideration of the Seller`s interests (§ 5 (11) Sales Terms).

We hope that our quotation meets your expectations.

Yours faithfully,

T H I E S GmbH & Co. KG

i.A. Hermann Freericks

In case you have any queries concerning our offer or execution of your order, please find below the contact names and addresses/ tel-no. for the person in charge:

	Name	Tel-No.	E mail
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Area sales manager:	Hermann Freericks	+49 163 685 4853	h.freericks@thies.group
Sales support:	Monika Büning	+49 2541 733-282	m.buening@thies.group
Shipping dept:	Barbara Riering	+49 2541 733-405	shipping@thies.group
Technical service/ Spare parts:	Olaf Wevers	+49 2541 733-376	service@thies.group

1 hankMaster 95/6 (60 kg)

1 hankMaster 95/6 - Hank Dyeing Machine

Number of suspension rods		6
Suspension length/rod	[mm]	960
Total suspension length	[m]	5,76
Nominal capacity at a weight of 10,4 kg/m suspension length	[kg]	60
Operating temperature	°C	95

All parts of the machine coming into contact with the processing liquor from stainless steel (material 1.4571/1.4404), forged parts material 1.4401, cast steel parts material 1.4408.

	EURO
Basic equipment	90.987,00
Additional equipment:	
Addition tank with analog dosing, liquor sampling pipe, heating coil, stirrer and pressure pump	12.168,00
2nd Water inlet	539,00
Water meter MID	2.503,00
2nd Drain valve	1.124,00
Electronic control T 390 incl.: - Industrial PC THIES T 390 incl. Windows 10 IoT 12" XGA Multitouch Display Ethernet, OPC UA interface - Control cabinet with power unit - Batch parameters - RINSEtronic (only possible with stock tank or 2 water valves + water meter) - Temperature Manager (only possible with stock tank + 2 water valves) - Nozzle pressure measurement - Drainage by use of compressed air or pump	23.597,00
Control cabinet in stainless steel	2.014,00
Approval (DGRL)	
Total price for 1 machine:	**132.932,00**

Options - prices per machine:	**EURO**
Stock tank vertical, 100% liquor volume	5.968,00
Heating coil with valve at the stock tank	804,00
Stirrer for stock tank	804,00

Performance data:

Thies systems are laid out by standard for the following performance values:

		Customer values	Standard performance values (THIES)				
Operating voltage			400 Volt (DIN EN 50160), TN-network				3 phases
Frequency			50 Hz				
Control voltage			230 VAC / 24 DC				
Steam			5 – 8 bar overpressure, saturated steam				
Condensate			< 1,5 bar				
Cooling water			2 - 4 bar				15 – 18 °C
Process water 1			2 - 4 bar;	75 °C	max.		
Process water 2 *)			2 - 4 bar;	75 °C	max.		
Process water 3 *)			2 - 4 bar;	75 °C	max.		
Outlet 1	☐ open	☐ closed	Effluent	< 50 °C	line closed and pressure-less		
Outlet 2 *)	☐ open	☐ closed	Effluent	< 92 °C	line closed counter-pressure < 0.2 bar		
Outlet 3 *)	☐ open	☐ closed	Effluent	< 140 °C	line closed counter-pressure < 0.2 bar		
Pressurized air			6 - 8 bar; according to ISO 8573-1:2010 [1:4:1]				
Control air			6 - 8 bar; according to ISO 8573-1:2010 [1:4:1]				
Installation height			up to 1,000 m above sea level				
		Climatic conditions for electrical equipment:					
Humidity			at	20 °C	30 °C	40 °C	50 °C
			max.	80 %	65 %	50 %	35 %
Room temperature			max.	35 °C			

*) *Strike out if not applicable*

The following conditions must be ensured by the buyer:

- The maximum individual operating pressures and temperatures of the system components must not be exceeded.
- For the operation of the system, an uninterrupted, sufficient energy supply is required.
- The wastewater system must be dimensioned appropriately for the machine sizes to be connected and it must be equipped with a free drain.
- For pressurized high-temperature systems, pressurized air outlet lines must be installed according to the locally valid noise protection regulations.

Please check and confirm the correctness of the operating data, as it is decisive for the correct layout of the systems.
.....

We acknowledge the information provided above.
We have taken note of the requirements for the water quality in the dye house as described below.

(Date) (Signature Buyer)

Water quality in the dye house

Optimal production conditions in the dye house require a steady water quality.

The processes water used for the direct dyeing and for indirect processes (cooling, etc.) should meet the following criteria.

Dye			colorless
Odor			odor-free
pH value			neutral pH 7-8
Water hardness	<	5	°dH (6.25°e; 8.95°fH; 89 USA)

Permissible concentration

Settleable solids	<	1	mg/l
Filterable solids	<	50	mg/l
Organic load	<	20	mg/l ($KMnO_4$ absorption)
Evaporation residues	<	500	mg/l
Iron (Fe)	<	0.1	mg/l
Manganese (Mn)	<	0.02	mg/l
Copper (Cu)	<	0.005	mg/l
Nitrate (NO_3^{1-})	<	50	mg/l
Nitrite (NO_2^{1-})	<	5	mg/l
Chloride	<	200	mg/l

The water should be free from carbon dioxide (CO_2) in order to avoid corrosion.

Mechanical problems or problems in terms of application engineering, which are due to an inadequate water quality, are excluded from our liability.

11/2017

Performance Data

The company Thies is referred to hereinafter as **Seller** and the customer as **Buyer** regardless of their legal form.

Scope of Delivery

The scope of delivery includes all parts and components, e.g. steam, water, pressure lines according to Seller's standard product design or according to a layout approved by Buyer.
All supply and disposal units beyond the scope of delivery, as well as all foundations and other masonry work shall be provided by Buyer.

Standards and Safety Regulations

Unless stated otherwise in the order confirmation, Seller manufactures machines, assemblies and components in accordance with the legal and regulatory requirements that are applicable in Germany, e.g. according to the national implementing laws and ordinance of Directive 2014/68/EU (Pressure Equipment Directive), Directive 2006/42/EC (Machine Directive) and Directive 2014/30/EU (EMC Directive).

Should additional country-specific regulations and standards apply at the setup site, which must be considered in the design of machines, assemblies or components, Seller must be informed of them in writing before the order is placed.

Machines that are delivered partly assembled will be regarded as ready for use only upon complete assembly. If the delivered machines are set up ready for use by Buyer itself within the area of application of the Machine Directive, Seller shall issue a declaration of conformity for them and apply a CE-mark on the machine. If incomplete machines are delivered, Seller shall issue an "Installation declaration for incomplete machines" in accordance with the Machine Directive.

If Seller's scope of delivery is to be combined with further machines that are provided by Buyer (hereinafter "Complete System"), Buyer shall be obligated to check whether safety equipment beyond Seller's scope of delivery is required, in order to comply with regulations and provisions for the Complete System. It is the Buyer's responsibility to provide such safety equipment for the commissioning or to order it on time in addition from Seller if necessary. Seller furthermore points out the requirement within the area of application of the Machine Directive of a general operating instruction taking an overall risk assessment into account in that case, as well as the requirement that the machines provided by Buyer must comply with the regulations of the Machine Directive. Buyer is responsible for the observation and implementation of these requirements.

Should Seller undertake in writing to issue a declaration of conformity (according to the Machine Directive) for a Complete System that exceeds its scope of delivery, it shall make this commitment exclusively subject to the condition that Buyer issues and hands over to Seller a declaration of conformity for all machines provided by it within due time beforehand and that it appends a CE-mark on these machines, or issues and hands over an installation declaration on time to Seller for all provided incomplete machines. In case Buyer fails to do so, Seller shall not issue a declaration of conformity for the Complete System and exclusively take the machines that it has itself delivered into operation, and reject any responsibility if Buyer itself takes the provided machines into operation contrary to the regulations of the Machine Directive.

Assembly and Commissioning

Seller shall provide specialized personnel, e.g. assemblers, technicians or engineers for the assembly and commissioning of the scope of delivery as well as for the training of Buyer's personnel. For these services, Seller shall charge the costs incurred for travel to and from the site at the currently valid rates according to the attached list. Buyer shall provide assisting personnel for Seller's specialized personnel on request.

Seller's specialized personnel shall be responsible for the fault-free complete installation of the scope of delivery.

If assembly and commissioning is conducted by Buyer in its own responsibility, Seller shall not accept any warranty and/or extend any guarantee for any resulting claims of defects or subsequent deliveries.

If requested, Seller's specialized personnel can assist in the commissioning. For commissioning, Buyer shall provide sufficient quantities of test material. Seller shall not be liable for any deficient results in terms of textile engineering during the commissioning of the scope of delivery and its calibration phase.

Seller shall make standard recipes available for testing purposes. In addition, Seller can provide an application technician for advice on the usual conditions in the case of problems with textiles or dye.

Approval of Pressure Devices

The pressure devices to be delivered by Seller that require an acceptance shall be approved by a certified testing body. Documents of the completed approval shall be provided to Buyer. The costs for these are included in the scope of delivery.

The scope of services neither includes any additional expenses for a possible approval of assemblies of pressure equipment installed at the installation site in accordance with the PED with CE certification by a notified body. Nor does it include the inspection before commissioning of the delivered machine and/or pressure equipment by an approved inspection body in accordance with country-specific requirements.

Seller's plants are laid out according to the standard data of the performance values (THIES) specified on the performance datasheet.

Additional Rule on Acceptance of Pressure Devices in Deliveries to Non-EU Countries

To be able to take requirements deviating from the aforementioned standards and safety regulations into account, Seller shall make all necessary drawings and data relating to the pressure devices that require acceptance available to the competent entities for presentation and preliminary approval.
If significant design changes result in the process, Seller reserves charging the costs arising for this to Buyer.

Delivery in Accordance with the Contract

Within its responsibility for delivery in accordance with the contract, Seller warrants the fault-free functioning of the scope of delivery, in particular the even imbuing or bleaching. It is required that first-class raw materials, dyes, chemicals that meet the European standard and water in the defined water quality will be used.

Check the equipment regularly for signs of corrosion!

A risk of corrosion is caused by the use of

– chloride ions (Cl^-), e.g. common salt (NaCl) or other products containing chloride;
– chlorine dioxide ions ($ClO2^-$), e.g. sodium chloride (NaClO2).

Chloride ions (Cl^-) in the cooling and process water can likewise lead to corrosion.

Use of these products is at your own risk.

The treatment bath becomes increasingly aggressive

– with rising chloride concentration,
– with rising temperature,
– with decreasing pH value,
– with the length of treatment time

Regarding the evident corrosion problems, we expressly point out that exclusively Glauber salt (sodium sulfate, Na2SO4) may be used and not cooking salt (sodium chloride, NaCl).

Seller's General Terms of Sale and Delivery apply in respect of the fault-free workmanship of the machines. The obligation for the delivery in accordance with the contract and according to the attached General Terms of Sale and Delivery is based on the condition that the scope of delivery can be assembled and taken into operation by Seller's specialized personnel without great delays upon arrival at the setup site. In the case the scope of delivery is stored, Buyer shall be responsible for any damages caused by improper storage.

Information on Material Carrier Systems

The prerequisite for a successful, reproducible yarn dyeing or drying is that even densities and weights as well as dimensions of the textile material are processed.

In case there are material carriers (external carriers), even distribution of the air and treatment liquid must be ensured. Any greater loss of pressure that impairs the even treatment of coils must be prevented.

Furthermore, the textile material must be sealed off within the carrier system according to the shape of its layout, so that the air and liquid circulate exclusively through the material to be treated.

The use of plastic sleeves requires elastic closures, the effect of which is not cancelled out by the pump pressure/differential pressure. Winding coils that are dyed or dried must have a high-quality, even winding density of max. ± 3%. It is avoided this way that leaks are caused by the lowering of the coil columns during the dyeing/drying processes.

If strongly shrinking yarns are used, it is recommended to use radially elastic dyeing tubes to prevent an uneven compression of the yarn layers.

If strongly expanding yarns are used (e.g. acrylic), Seller recommends using star or top plates to limit the yarn expansion. An optimal coiling can reduce the yarn expansion. The yarn expansion in radial or axial direction must not exceed 2.5%, as quality will be lost otherwise.

Notes on Pressurized Driers

Within the scope of its obligation for the delivery in accordance with the contract, Seller warrants the fault-free functioning of the assembly and an even drying result. However, this requires correct maintenance, correct preparation of the items to be dried and suitable material carriers. The bleaching/dyeing tubes must withstand the temperatures and pressures used in the drier without suffering deformations and they must also permit the correct sealing from each other as well as from the material carriers.

Deviations in the coil winding and in the coil diameter must not exceed or fall below max. 2.5%. The maximum winding diameter of a coil must not exceed 250 mm.

For an even residual moisture distribution in the dried coils, we recommend a levelling phase of at least three hours during which time the material carrier rests in normal ambient temperature after the completed drying process.

Our information on drying times and consumption data refers to rinsed lots that are not scrooped. Uneven winding forms, dyeing auxiliaries, scrooping agents, paraffins and naphthol dyes can have a negative effect on the performance of the drier. To avoid dye migrations, use suitable dyes and auxiliaries with fastness properties that are suitable for use in the drier.

Setup Information for Control Units

The power switch cabinet must be positioned near the machine. Power lines with a length of up to 10 m are included in our delivery.

The climatic conditions listed in the attached operating datasheet must be given for the electrical equipment.

Software

The software provided to Buyer as part of the delivery and its documentation must be treated as confidential. The embodiment of the software and its documentation will remain the sole property of Seller. Seller grants simple use rights to Buyer. Buyer is not authorized to reproduce the software and/or its documentation or make it accessible or disseminate it to third parties.

In individual cases and according to Seller's sole discretion, an exception can be approved with Seller's written agreement.

Operation and Safety

The scope of delivery includes the operating manual, the receipt of which Buyer's responsible employees shall confirm to Seller's specialized personnel on assembly and/or commissioning.

The operating manual contains important information on

- safety,
- product description,
- transport and assembly,
- operation,
- maintenance.

To ensure the use of the scope of delivery for its intended purpose, it is Buyer's responsibility that it is operated by personnel who have familiarized with the content of the operating manual. Lack of knowledge or failure to adhere to the safety rules and operating instructions contained in the manuals can entail serious personal injury and/or property damages. Seller will not accept any liability in such cases.

For high-temperature machines that are pressurized, pressurized air outlet lines must be installed at the site according to the locally valid noise and emission protection regulations. All inlets and outlet lines including pipework conducting steam and hot water must be insulated. The insulation must be produced on site by Buyer.

Third Party Products

Products of other manufacturers, which are operated or integrated together with the machines or plants of Seller do not fall within Seller's liability. Buyer is responsible for all personal injuries and property damages that are caused by the operation and/or malfunction of such products and/or control units.

09/2024

Holma Helsingland AB
Lundvägen 47 A
SE - 82065 Forsa

Sweden

Installation -
Confirmation of Order
Quotation

Customer No.: **110104998**
Order No.:
Place of installation: **Sweden**

YOUR REFERENCE	OUR REFERENCE	DATE
	bg	25.11.2024

Dear Sirs,

We thank you for your order/enquiry. The following rates will be charged for the services of engineers and technicians according to the conditions stated.
The standard working time complies with the actual valid agreement of the metal industry. The following rates are based on the present standard wages and daily allowances. Any increase in these will be invoiced accordingly.

The rates being charged at present are:

1.	Technician per hour	EUR	**90,00**
	Engineer per hour	EUR	**112,00**
2.	Additional charges:		
	Overtime plus		50 %
	Work on Sunday plus		70 %
	Work on public holidays plus		100 %
	Night hour (8 p.m. - 6 a.m.) plus		50 %
	Working hours on 1st January, Easter Sunday, 1st May, Whit Sunday, 25th December, during the night of 24th to 25th December (5 p.m. - 6 a.m.) and during the night of 31st December to 1st January (5 p.m. - 6 a.m.)		150 %
3.	Allowance for technician per day/night	EUR	**206,00**
	Allowance for engineer/technician according to charges arising		
4.	Travelling expenses for flight, railway, luggage, visa, vaccination, insurance, etc.		
	Charges for the use of a car	EUR/km	**1,00**
5.	In tropical and sub-tropical regions the buyer will have to pay a monthly allowance of EUR 40,- for the usual tropical clothing required due to the climatic conditions on the site of installation.		

Yours faithfully

Thies GmbH & Co. KG

_____

Signature of the buyer

PC 0315 /E

General Conditions of Installation and Commissioning

(Technical personnel = fitters, technicians and engineers)

At the Buyer's request the services of technicians and engineers, hereafter called 'technical personnel' will be made available by the Seller, whereby the Buyer expressly accepts the following terms and conditions.

1. Technical Personnel

This term applies to all skilled and/or graduated members of the Seller's technical staff, employed in the installation and/or commissioning of the machinery, the choice being left to the Seller's discretion.

2. Working hours, Wages, Daily Allowances and Travelling Expenses

a) Installation wages are charged for the hours actually worked. Both the daily and weekly working hours will be agreed upon between the Buyer's and the Seller's technical personnel. Principally they are based on the legally fixed, normal working time of the country where the installation/commissioning is carried out. Wherever they exceed the normal, usual and contractual working time of the Seller's country they will be charged as overtime.

b) Travelling hours on regular working days will be charged at the normal wage rate without any additional charge of the overtime. Travelling hours on Sundays and public holidays will be paid for by the Buyer at the additional rate stipulated. If the technical personnel starts working immediately after arrival from a journey, the travelling time exceeding 4 hours is considered as working time.

When travelling by car, the travelling time will be charged as working time.

The technical personnel has been advised to take a lodging, if possible in the surrounding area of the site, if the transportation time from and to the lodging takes more than one hour per day, the exceeding time will be charged for the technical personnel as working time. Any travelling expenses will be to the debit of the Buyer.

Any working hour or waiting hour (overtime) beyond the normal, standard working time will be subject to an additional charge. If upon the Buyer's request the technical personnel will have to work overtime, this will have to be agreed upon between the Seller and the technical personnel. There will be an additional charge for every hour worked on a Sunday, a public holiday or during the night. Public holiday to be paid for are those included in the union agreements being in force at time of installation/commissioning. The hourly wage rates are based on the presently applicable union pay scale. Any change in this will accordingly effect the hourly wage rates.

c) During the time of installation/commissioning including travelling days and waiting time, the Buyer will pay to the technical personnel an allowance which is due in advance weekly in full for boarding/lodging and additional expenses.

The allowance will also be paid for days without work, i.e. Sundays, public holidays, waiting time. For travelling days this allowance will be reduced 50% if travelling started after 12 a.m. or ended before 12 a.m.

If proof should be given by the technical personnel that the allowance is not sufficient an adequate rate will be agreed upon between the Buyer and the Seller. Allowance will also be charged and claimed in case of illness or accident causing absence from work, the duration of which being subject to an agreement between the Buyer and the Seller.

d) It is understood that the Buyer will pay the technical personnel's return fare to and from the erection site from the Seller's country, including cost of transportation of the technical personnel's tools, luggage and other additional expenses. The technical personnel is entitled, at the Buyer's expense, to travel home for the Easter, Whit Sun, Christmas and New Year holidays, in case of extended installation/commissioning working periods abroad the technical personnel is entitled to a home visit at three monthly intervals at the Buyer's expense.

e) In the event of a member of the technical personnel falling sick, the Buyer will arrange for the necessary medical assistance and, if necessary, for the transfer to an adequate and suitable hospital, at the same time informing the Seller or the Seller's agent accordingly. The Buyer will advance any ensuing medical and hospital expenses, which will be returned to him by the Seller on presentation of the corresponding bills.

3. Payment for Installation/Commissioning Work

a) The installation/commissioning work will be invoiced on its completion or at monthly intervals in case of extended and longer working periods.

b) The Buyer will confirm to the Seller's technical personnel in writing the completion of the installation/commissioning work and will also sign the technical personnel's weekly working reports.

4. Insurance, Taxes and Similar Dues

a) The Seller will pay all fees due for health insurance, trade associates and other insurance payable at the permanent residence of the Seller's technical personnel.

b) The Buyer will pay any taxes or other dues payable in this country for the wages, allowance, etc. of the Seller's technical personnel.

c) The allowances, etc. agreed upon will be paid by the Buyer to the Seller's technical personnel without any deductions. Any taxes and other dues payable in the Buyer's country on the payments to be made to the Seller's technical personnel will be to his debit.

d) In case the laws of the Buyer's country do not allow full payment of the amounts due the Seller or the technical personnel without any deductions, then these amounts will be increased accordingly to ensure that both the Seller and the technical personnel will receive the full net amounts, due to them, without any deductions.

5. Miscellaneous

a) The Buyer undertakes to assist the Seller's technical personnel in finding suitable accommodation.

b) The Buyer undertakes to make available and take care of in good time at his own expense and risk

1) Assistant labour and, if required, also bricklayers, carpenters, mechanics and other skilled labour sufficient in number to meet the supplier's or his personnel's requirements.

2) All earth moving, foundation, building and scaffolding work including the necessary materials.

3) Any tools, handling and lifting equipment, lightning, heating and energy up to the site as well as sundry auxiliary materials such as oil, timber, sealing and cleaning materials, coal and the like required for the installation and commissioning.

4) Lockable, weather-protected premises with adequate lightning for storing machine parts, materials, tools and clothes in the immediate surroundings of the site.

5) Adequate safety measures at the site to protect the personnel against accidents.

c) To ensure that the installation can be started and carried out without delay and interruption immediately after the personnel's arrival, all the equipment required for the erection including the machines supplied will have been transported by the Buyer into the fully completed and prepared premises. All preliminary work, especially foundations and service mains must have been completed.

d) In case the installation is delayed without the Supplier's fault, any costs resulting from waiting times and necessary additional travelling by the personnel will be to the Buyer's debit. The same if without the Supplier's fault the equipment supplied cannot be put into operation or used immediately after completion of the installation.

6. Test and inspection

It is Buyer's obligation and responsibility to have the installation of the equipment checked and tested immediately after its completion has been reported followed directly by a test run if the latter has been stipulated in the contract.

7. Supplier's liability

The Supplier is responsible, to the exclusion of any other claims, (especially in respect of damages) for the proper assembly of the goods and undertakes to eliminate any assembly faults disclosed and made known by the Buyer within six months after completion of the assembly work provided always that such faults can be proved to have been due to neglect on the part of the Supplier and his employees. The liability period for faults is shortened by two months if the daily operation time of the plant amounts to more than 8 hours.
The Supplier's liability does not cover:

a) any faults due to circumstances brought by the Buyer

b) any work beyond the scope of the Supplier's supplies and services carried out by the fitter at the Buyer's request

c) auxiliary labour not provided by the supplier

d) non-observance of operating instructions

8. Installation Times, Limits and Risks

a) Time limits in respect of the installation work given by the Supplier shall be considered binding only if such time limits have been expressly specified as such.

b) The Buyer assumes all risks in connection with the installation work.

9. General Conditions

Unless otherwise provided for in the "General Conditions of Installation and Commissioning", the mutual rights and obligations of the Buyer and the Supplier's "Standard Conditions of Sales and Delivery" are valid. The same applies to the place of jurisdiction and the law to be applied.

09/2017

General Terms and Conditions of Sale and Delivery

§ 1 General Stipulations, Scope

(1) These General Terms and Conditions of Sale and Delivery (referred to hereinafter as “Sales Terms”) apply exclusively. We do not acknowledge any General Terms of the ordering party or Buyer (referred to hereinafter as “Buyer”) that deviate from or are contrary to the following Sales Terms, unless we have explicitly given our written (section 126 German Civil Code) consent to their application.[1] These Sales Terms also apply if Thies GmbH & Co. KG (referred to hereinafter as “Seller“) renders performance with full knowledge of conflicting or different terms and conditions of Buyer without any reservation of rights.

(2) These Sales Terms shall only apply vis-à-vis companies, legal entities governed by public law and special-purpose public funds (public sector).

(3) Any individual stipulation concluded in individual cases with the Buyer (including subsidiary covenants and agreements, amendments and changes) shall always have priority over these Sales Terms. A written agreement or explicit written confirmation of the content of such agreements by the Seller shall be required.

(4) These Sales Terms also apply in their most recently included version as a framework agreement for future sales and/or deliveries to the same Buyer without the Seller having to make reference to such once again in every individual case.

(5) Declarations and notifications of legal importance that are to be issued by the Buyer to the Seller after signing of the Agreement (for example the setting of deadlines, notices of defect, declarations of revocation or reduction in price) must always be in writing to be effective.

(6) References to the application of statutory provisions shall only serve the purpose of clarification. For this reason, statutory provisions shall also apply even without any such clarifying note if such are not directly changed or expressly ruled out by these Sales Terms.

(7) Buyer and Seller may transfer this Agreement (principal agreement including Sales Terms) in its entirety or assign any of their rights or obligations arising out of this Agreement to third parties only by prior written consent of the other party.

§ 2 Conclusion of the Agreement, Provided Documentation

(1) Quotes and Offers of the Seller are – in particular with respect to the conclusion of Agreement and with regard to quantity, price and delivery period – subject to change and non-binding. This is also the case if the Seller has provided the Buyer with a catalogue, technical documentation (for example drawings, plans, estimates, calculations, references to DIN standards), other product descriptions or documents, including in electronic form. The Seller preserves all rights all rights of ownership and copyrights on these. These may only be made accessible to third parties with Seller`s explicit written consent.

(2) The order placed for the purchase object by the Buyer shall be deemed to constitute a binding contractual offer. An order shall only be deemed to be valid after written confirmation of order is issued or upon the delivery of the goods to the Buyer as agreed upon (acceptance).

(3) This acceptance is subject to a condition precedent (section 158(1) German Civil Code): It shall only become effective if the export control laws of the Federal Republic of Germany or the European Union as well as of the USA, as far as this is applicable from the U.S. point of view and German/European law does not conflict with its application, do not (any longer) stipulate a contractual prohibition for this legal transaction and the (export) license(s) required for this legal transaction has/have been issued. The parties explicitly rule out any retroactive effect (contra section 159 German Civil Code).

(4) The installation of the purchase object takes place based on the General Conditions of Installation and Commissioning (Installation Conditions) of the Seller, which are stipulated separately.

(5) Drawings, illustrations, measurements, weights or other performance data shall be binding only if expressly stipulated by written agreement; such data shall not be construed to constitute guarantees of quality.

§ 3 Prices

(1) The price of the purchase object (purchase price) is understood to be Free Carrier delivery from the Seller`s premises (FCA Incoterms® 2020), without discount or any other deductions, plus statutory VAT/sales tax. Any additional services agreed, for example destination charges, shall be charged to the Buyer in addition. In the case of deliveries and services performed into the EU, the Buyer shall provide the Seller with the Buyer`s VAT-ID no.

(2) The prices payable as per quotation respectively confirmation of order (contractual prices) are based on the current prices for raw materials and wage costs.

We reserve the right to adjust the contractual price accordingly if relevant cost increases occur after conclusion of the contract, in particular due to changes in the price of materials (cf. § 3 (2) SALES TERMS). In the same way we are obliged to proceed in case of relevant cost reductions.

Relevant material price amendments shall be deemed to exist if there are at least three (3) months between the date of the conclusion of contract and the date of delivery and if, based on the production cost portion of the metal and the producer price index for the metal as specified in para. 3 (2), there is a cumulative price amendment of at least ten (10) % in total compared to the contractual price (cf. further details: § 3 SALES TERMS).

We will prove both relevant cost reductions and relevant cost increases to the Buyer upon request. The producer price index for metal, which are particularly relevant for our machine production is regularly publicly available on the internet on the website: https://www-genesis.destatis.de/genesis/online, 61241-0004, GP09-24, „metals“ and can also be proven to the Buyer at any time if required. The production cost portion shares of metal, according to machine types, are expressly indicated to the Buyer by us in the quotation respectively confirmation of order.

(3) The Buyer is responsible for the import operations, the import duties and the customs declaration according to the stipulations applicable in each case as well as any duties payable in the country of destination.

§ 4 Conditions of Payment, Default on Payment

(1) The Seller's business place is the payment location. The purchase price and prices for additional services shall be due payable without any deductions and in the agreed currency to the Seller's bank account on the agreed date (§ 1 para. 3). The due time for payment arises however the latest upon delivery of possession of the purchase object respectively not later than eight (8) days from receiving the notification that the goods are ready for dispatch.

(2) The Buyer shall be entitled to rights of set-off only if the Buyer`s counter claims are legally established as res judicata, and are undisputed, or acknowledged by the Seller. In addition, the Buyer may exercise a retention right only if the Buyer`s counterclaim is based on the same Agreement.

(3) In the event that the Buyer is in arrears with payment, the Seller may claim interest on arrears in the amount of eight (8) percentage points above the respective base interest rate. The Seller retains the right to claim additional damage for delay due to breach of contract pursuant to CISG (e.g. but not limited to foreign currency losses in the case of liabilities in foreign currencies).

(4) In the event that the Buyer has not cleared the agreed payment within a period of ten (10) days after receiving a reminder notice from the Seller, the Seller is entitled to declare the Agreement avoided pursuant to Art. 64 CISG by written declaration and to claim damages including claims for loss of profit (article 74 ff. CISG).

(5) If following conclusion of the Agreement it becomes recognisable that the claim to the purchase price will be jeopardised as a result of deficient capability to render payment on the part of the Buyer (e.g. due to application for the opening of an insolvency proceeding, but not limited to this) or that the Buyer will not fulfil an important contractual obligation, the Seller shall be entitled to refuse performance and – if applicable after the setting of a deadline – revoke from the Agreement (section 323 of the German Civil Code). This is especially the case if the Buyer fails to comply with its obligation to cooperate in severe dimensions. In the case of contractual agreements on the manufacturer of unreasonable objects (custom manufacturing), the Seller may declare Revocation immediately. This shall not affect statutory provisions on the ability to waive setting a deadline.

(6) Insofar as payments are executed by third parties, Buyer shall oblige the third party to always make the reference customer and business traceable for the Seller. In case of bank transfers, for example, this information must always be included as reference on transfer. If no such indication is given within the payment information to the Seller, the performance shall not be deemed to have been rendered vis-à-vis the Seller.

§ 5 Delivery and Default on Delivery

(1) The delivery results FCA (Free Carrier) from the delivery plant in Coesfeld (FCA Incoterms® 2020), if nothing to the contrary emerges under the Agreement or individual subsequent alterations of the Agreement and individual stipulations (§ 1 para. 3).

(2) Delivery dates or delivery periods that can be agreed with or without commitment shall be stated by WRITTEN declaration. Unless expressly agreed otherwise, the dates or periods stated by the Seller are non-binding.

(3) Periods for delivery commence no earlier than upon the conclusion of the Agreement. The beginning of periods for delivery also presupposes receipt of the agreed down payment, where agreed the opening of a Letter of Credit in accordance with the Agreement and, if clarification of technical questions was reserved for later negotiation when the Agreement was concluded, the written declaration of the Seller that the technical questions are clarified.

If subsequent alterations of the Agreement are mutually agreed, the altered delivery dates or periods shall be adequately extended; if necessary, delivery dates or delivery periods shall be agreed anew at the same time.

(4) The Seller may withhold delivery until due payments have been made (and, as the case may be, until a Letter of Credit in accordance with the Agreement has been opened) by the Buyer in accordance with the AGREEMENT and all other obligations owed by the Buyer under the AGREEMENT that are necessary for the performance of the delivery of the purchase object.

(5) The Buyer may demand that the Seller deliver six (6) weeks from having exceeded a non-binding delivery date or a non-binding delivery period. Upon receipt of the demand, the Seller shall be in default. Section 376 German Commercial Code (HGB) is excluded.

(6) In the case of delay in delivery the Buyer may claim, after six (6) further weeks have elapsed and if the delay has been culpably caused by the Seller, fixed compensation for loss and damage amounting equal to zero point five per cent (0.5 %) for each further full week of delay up to a total of five per cent (5 %) on the value of that part of delivery which, as a consequence of the delay, cannot be used as intended. Any claim for damages shall also be capped at this maximum amount if the Buyer declares the avoidance of the Agreement due to the delay. The Buyer must plausibly document that financial damage was suffered due to the delay.

(7) If the maximum liquidated damages according to para. 6 herein-above are reached, the Buyer - after he has fixed an additional reasonable period combined with the announcement that acceptance of delivery will be refused, at least however six (6) weeks, - may, if the Seller does not compete delivery before that date, notify the Seller in writing of the termination of the Agreement in respect of that part of the goods which are delayed, save where acceptance of partial performance should be an unreasonable demand. Any further claims against the Seller because of delayed delivery are excluded.

(8) In the event that, whilst being in default with delivery, the Seller becomes unable to perform delivery, the Seller shall be liable within the afore-said agreed limits of liability. The Seller shall not be liable if the damage would have occurred even if delivery had been performed at the due date.

(9) If a binding delivery date or a binding delivery period is exceeded, the Seller shall already be in default from the date of exceeding the delivery date or the delivery period. In that event, the Buyer`s rights shall be subject to para. 6, 7 and 8 herein-above.

(10) Force majeure or business disruptions occurring in the Seller`s business, or in the business of the Seller`s supplier, that temporarily prevent the Seller through no fault of his own from delivering the purchase object at the agreed date or within the agreed period of time, shall alter the dates and period mentioned in para. 2 bis 9 herein-above by the period of time during which performance is not possible due to such disruptions of performance. Force majeure shall be assumed if performance is prevented by circumstances beyond the party's control or especially by one of the following circumstances: fire, natural disasters, war, seizure, requisition, prohibition of export, embargo (compare § 2 para. 3) or other authority measures, general shortage of materials, restrictions in the use of power, industrial disputes or if a breach of contract of subcontractors is caused by any such circumstances. The circumstances beyond the party's control and their discontinuation are to be reported to the other party immediately. Should such events lead to postponement of performance by more than four (4) months, any party, irrespective of other rights of withdrawal, may revoke from Agreement by written declaration. Other rights of Revocation shall not be affected.

(11) Modifications in construction or in form, weight changes, deviations of color, and alterations of the scope of delivery, on the side of the Seller are reserved during the delivery period, provided such alterations or deviations are reasonably acceptable to the Buyer in consideration of the Seller`s interests. In particular, but without limitation, changes to purchased parts (in particular, but not limited to, motors, flaps, ball valves, valves, pumps, trays, plates and control cabinets) will come into consideration, which may vary according to the choice of the subcontractor (e.g., but not limited to, color, shape, presentation, design, size, weight, deviations in surface quality). Typical construction changes are, for example, but not limited to, modified pipeline flow directions or optimizations of components. Acceptability regulations in the customer countries can also lead to reasonable construction changes. Where the Seller uses symbols or numbers to identify the order or the ordered purchase object, no rights can be derived from this alone.

(12) Fulfilment of the Seller`s delivery obligations is subject to the precondition that the Buyer punctually and properly performs his obligations., where agreed in particular (but not limited to) the timely opening of a Letter of Credit in accordance with the Agreement. The plea of non-performance of the Agreement is reserved.

(13) Partial deliveries and partial performance are permissible.

§ 6 Conditions of Acceptance, Default on Acceptance

(1) The Buyer has to collect the purchase object within ten (10) days following the notice of readiness for shipment at the latest. The costs incurred by the delay for storage, insurance, protection measures etc. will be charged to the Buyer. In this case the Seller shall be - without prejudice to further claims of the Seller - entitled in particular to charge stand-by fees in the amount of EUR 200 (two hundred) per day per machine respectively shipment. This amount can be raised or reduced if the Seller presents proof that the damage / loss suffered was higher or lower. The Seller shall set the Buyer a reasonable period for acceptance by written declaration if the Buyer does not accept the goods upon delivery. The Seller's right to require payment of the purchase price shall remain unaffected.

(2) After expiration of the additional period the Seller is entitled to terminate the Agreement in whole or partly by written declaration and claim damages. These damages amount at least half of the net value of the goods for delivery or the delivery part not taken possession of; other rights of the Seller shall not be affected.

(3) The risk of accidental loss and/or accidental deterioration of the purchase object shall pass to the Buyer according to Art. 67 et seq. CISG, but no later than on the date on which the Buyer defaults on acceptance.

(4) In the event that the Seller does not exercise the rights under para. 1 und 2 herein-above, he may freely dispose of the purchase object and, without prejudice to other statutory and/or contractual rights, such as damages claims, deliver in lieu of the purchase object goods of the same type in compliance with the Agreement terms, within a reasonable period of time.

§ 7 Reservation of Title

(1) Title in the purchased objects shall not pass to the Buyer until the Seller is in receipt of the full Agreement price. Until receipt of the full Agreement price by the Seller, the Buyer shall

- keep the purchased objects properly stored and protected, complete and in good repair as well as operate them properly as long as they have already been placed into service.
- insure the purchased objects with a reputable insurer for their full replacement value against all risks and prove this upon request of the Seller.
- not sell, pledge, transfer ownership as a security, lease or otherwise dispose of the purchased objects without Seller's prior written consent.

(2) If the applicable property laws do not acknowledge a reservation of title as provided for above or request additional preconditions such as but not limited to registration requirements etc., the Buyer undertakes to support the Seller at Seller's request to the best of his ability in order to fulfil these requirements or to establish a comparable security interest for Seller in relation to the purchased object. Reasonable costs thereby incurred shall be for Buyer's account. The Buyer shall inform the Seller if any dangers regarding the property of the Seller should occur. This applies especially to disposals of third parties or authority measures.

(3) The transfer of risk as stipulated in this Sales Terms remains unaffected by the reservation of title.

§ 8 Seller's Responsibility for Conformity of the Goods

(1) The Buyer may raise claims based on non-conformity of the purchase object only if he duly fulfilled his obligation to examine the purchase object and give notice of any non-conformity. The Buyer has to examine the purchase object in every respect for any lack of conformity with the contract immediately after the goods are physically transferred to him and to give notice of any non-conformity immediately after the non-conformity had been discovered. The notice has to be made that substantiated, that the Seller is able to make a clear-cut judgement on the nature, contents and scale of the non-conformity as well as to acknowledge the Buyer's intention not to accept the delivery of the purchase object as proper fulfilment of his duties.

The Buyer shall lose the right to claim non-conformity with the contract, if he does not give notice to the Seller by written declaration by the quickest possible means by which transmission is guaranteed (e.g. by telefax) immediately after he discovered or ought to have been discovered the non-conformity. Art. 44 CISG is excluded. After arrangement with the Seller the Buyer is responsible for the securing of all proofs.

(2) The proof of careful treatment, adequate storage and maintenance of the purchase object devolves on the Buyer.

(3) If the delivery was not fulfilled as contractually agreed, the Seller shall according to his choice be free to remedy such non-conformity by subsequent improvement or making a replacement, even in the case of fundamental non-conformity within twelve (12) weeks after the Buyer's request. The Seller is seeking a quick subsequent improvement respectively replacement, but can not accept shorter deadlines because of the spare part production where necessary, the delivery and the formalities for export and import.

(4) The Seller expressly confirms that (with the exception of parts subject to wear and tear) it will replace, free of charge (DAP Incoterms 2020), parts which are objected to in writing on the grounds of non-conformity within the period specified in § 16 upon return of the original parts. For the avoidance of doubt, any customs duties, handling or clearing charges incurred in the country of destination shall be for the Buyer's account. For the parts installed to remedy the non-conformity, the Buyer may only assert claims based on the non-conformity of parts until the expiry of the limitation period of the object of purchase. The Buyer may raise claims based on lack of conformity of parts installed to remedy the lack of conformity under the Agreement until the limitation period for the purchase object ends.

(5) No claims are created on the grounds of non-conformity if there is a relationship of cause and effect between the emerging non-conformity and the fact that

- the purchase object was handled improperly or put under excessive strain, e.g. , but not limited to cases of inappropriate use of operating and production materials/mediums (salts, water, etc.),
- the purchase object was previously repaired or serviced by a service provider not accredited by the Seller and the Buyer should have recognised this, or
- parts were installed in the purchase object the use of which is not permitted by the Seller, or the purchase object was altered in a manner not permitted by the Seller, or
- the Buyer failed to observe the provisions relating to the handling, maintenance, servicing of the purchase object (e.g. operating instructions).

(6) If the Seller does not remedy the non-conformity (including defects of title) in accordance with the preceding paragraphs, the Buyer is entitled to a reasonable pro rata reduction of the purchase price. If the lack of conformity is fundamental as defined by article 25 CISG, the Buyer may demand termination of the Agreement after fruitless elapse of the deadline according to para. 3 herein-above, except where the Seller delivers prior to termination.

(7) Natural wear-and-tear shall not create any claims based on non-conformity, whatsoever.

(8) Claims for compensation for damages and reimbursement of futile expenses based on a non-conformity of the purchase object shall additionally be subject to § 11.

§ 9 Adherence to Statutory Provisions under Law Governing Export Controls

The obligation on the part of the Seller and the party receiving the goods to fulfil the AGREEMENT shall be subject to the proviso that the execution of the AGREEMENT is not prohibited or negatively affected by applicable export-control provisions of the Federal Republic of Germany or the European Union.

In addition, this obligation is subject to the proviso that the execution of the Agreement is not prohibited or negatively affected by other applicable provisions under export-control law, in particular the law of the USA, as far as it is applicable from the U.S. point of view and German/European law does not conflict with its application.

Should trade policy or other factual or legal developments emerge, that the Agreement or certain performances owed under the Agreement are or will become subject to government approval or fall or will fall under a prohibition ban, the parties shall be obligated to consult over alternative Agreement designs with the aim of adopting an amendment to the Agreement by mutual agreement.

§ 10 Exclusion of Liability for Damage Incurred in Connection with Export-Control Law

The Agreement shall be deemed to be null and void if it relates to a legal transaction that is prohibited under the law of the Federal Republic of Germany resp. the European Union or the law of the USA, as far as it is applicable from the U.S. point of view and German/European law does not conflict with its application, and shall be provisionally invalid to the extent that it relates to a legal transaction that requires an (export) license.

Notwithstanding provisions to the contrary in the Agreement, the Seller shall not be liable for damage, losses or any other costs that emanate from adherence to export-control provisions of the Federal Republic of Germany resp. the European Union or the law of the USA, as far as it is applicable from the U.S. point of view and German/European law does not conflict with its application, including, but not restricted to those which

a) emanate for this legal transaction from a negligent or unrecognised contractual prohibition or an approval of the Agreement that is not received under the said export-control provisions as long as failure to obtain approval is not due to the willful intent or gross negligence of a party,

b) lead to the execution of the Agreement being prohibited or negatively affected by the said export-control provisions,

c) emanates from delays as a result of government license obligations and/or comparable procedures that have not been caused by a party acting with willful intent or in a grossly negligent manner.

§11 Liability

(1) Claims of the Buyer for compensation for damages and reimbursement of futile expenses based on a non-conformity of the purchase object are subject to the condition that the lack of conformity is fault of the Seller.

(2) There are no other express or implied warranties. Any statement about the production and/or commercial efficiency of a machine shall only be regarded as an estimate and not as a warranty or binding statement. No liability is accepted for materials or accessories purchased at the instigation of the Buyer.

No liability is accepted for parts supplied which are subject to premature wear on account of the nature of the materials of which they are made, particularly moving parts, or the type of use.

The Seller has no liability for defects which arise from the design prescribed by the Buyer, in particular no liability attaches to the Seller for defects resulting from the following causes: poor maintenance, use of non-original Thies spare parts, changes without the written consent of the Seller, badly performed repairs by the Buyer and normal wear and tear.

Because of the obvious corrosion problem, we point out in particular that exclusively Glauber salt (sodium sulfate) is to be used as permitted operating and production material/medium, not Common salt (sodium chloride).

(3) If the Seller is not tenable for the impossibility of performance, all claims of the Buyer shall be deemed extinguished.

(4) If the Seller is liable to pay compensation for damage that was caused by negligence (but not by gross negligence), the Seller`s liability shall be limited as follows: The Seller shall be liable only for breached obligations that are essential to the Agreement, for example obligations that the Agreement, according to its content and purpose, is particularly designed to impose, or without the performance of which the implementation of the purchase Agreement is not possible and on the observance of which the Buyer regularly relies and may rely. This liability is limited to the typical damage that is foreseeable at the time of entering into the Agreement; the typical damage shall only comprise damage to the purchase object itself, not however any consequential damage and/or lost profits. If the damage is covered by an insurance policy that the Buyer took out to cover the case in question (with the exception of fixed-sum insurance), the Seller shall be liable for any detriment suffered by the Buyer in connection therewith, e.g. insurance premiums or interest charged, only until such time as the insurance has finalized claim settlement.

(5) In case of any violation of side obligations (also of pre- or post-contractual side obligations), the Seller only grants liability for damage which is caused by gross negligence and limited to a maximum of ten per cent (10 %) of the total final purchase price.

(6) Regardless of whether the Seller is at fault, the Seller`s liability in the case of fraudulent concealment of a defect, fraudulent misrepresentation, under a guarantee issued, or a risk assumed, and under the German Product Liability Act (Produkthaftungsgesetz - ProdHaftG), shall not be affected.

(7) The personal liability of statutory representatives, persons employed in performing an obligation for whom the principal is vicariously liable and employees of the Seller for any damage caused through their respective slight negligence is excluded. In the case of damage caused through the gross negligence of above-said persons, with the exception of statutory representatives and executive/managerial employees, the limitation of liability applicable to the Seller shall apply mutatis mutandis.

(8) The contractual liability for persons employed in performing an obligation for whom the principal is vicariously liable is with the exception of intent and gross negligence excluded in accordance with section 278 sentence 2 in conjunction with section 276 par. 3 German Civil Code.

(9) The limitations of liability provided for in the present Section shall not apply in the case of injuries to life, the body or health.

§ 12 Delays Resulting from Official Government Measures

Any applications for (export) licenses required should be filed three months prior to the planned delivery. In the event that there are delays as a result of official government approval obligations and/or comparable procedures, the point in time of the performance shall be postponed commensurately in accordance with respective contractual obligations.

§ 13 Contractual Use and Further Supply of Contractual Goods by the Party Receiving Delivery

The Buyer may use the purchase object only for the purpose that it has provided notification of. In particular, the Buyer shall not be allowed to supply the purchase object to a third party if such third party is on a sanctions list integrated into the AGREEMENT via § 9.

§ 14 Export license, information obligations

(1) The Seller is not aware of any circumstances that would prevent the issuance of an export license if required. However, the Seller does explicitly neither guarantee that a required export permit will be granted nor the possibility of issuing an required export permit.

(2) The Buyer agrees to use its best efforts to support the Seller when obtaining an export permit. The Buyer shall be responsible for obtaining an import license if so required.

(3) Notwithstanding other information obligations stipulated in this Agreement, each party shall support the other party in providing that information and documents (referred to in the following as: Information) which are required in order to meet the export control law integrated into the Agreement via § 9 or which are demanded by relevant government authorities in this regard.

This obligation may in particular also include Information on the end customer, the objective and the use of the purchase object in accordance with their intended purpose and shall not be excluded through non-disclosure obligations that may have been concluded previously. If necessary an exemption from a previously closed non-disclosure agreement can be demanded if an applicable provision under export-control law require technical details to be transmitted to the involved authorities.

§ 15 Expect Controls and Revocation of the Agreement

(1) Each party may revoke the Agreement with ab initio effect if the government authority in charge

a) refuses to issue the (export) license or

b) fails to issue the required (export/import) license within a period of three (3) months after the delivery date.

(2) The Seller may revoke the Agreement if the Buyer undertakes actions that encourage, allow one to expect or could result in a violation against export-control provisions integrated into the Agreement via § 9, in particular if there are justified reasons for believing that the party receiving the goods does not intend to use the goods for the communicated (§ 13) but for an illegal purpose.

(3) The provisions cited in the foregoing are not based on the possibility to terminate the Agreement for reasons other than the ones stated in the foregoing.

§ 16 Time Barring (Statute of Limitation Period)

(1) By way of deviation from section 438 para. 1 no. 3 of the German Civil Code the general time-bar period for claims emanating from delivery of non-conforming goods resp. goods subject to rights or claims of a third party shall be one year after transfer of risk.

(2) Special statutory provisions for rights in rem to hand over objects held by third parties shall also remain unaffected (section 438 para. 1 no. 1 of the German Civil Code), for things that have been customary used for a building and have resulted in the defectiveness of the building (section 438 para. 1 no. 2 of the German Civil Code) as well as fraudulent intent or grossly negligent ignorance on the part of the Seller (Art. 3 of the act enacting the CISG in conjunction with section 438 para. 3 of the German Civil Code).

(3) The aforestated time-bar periods under purchase law shall also apply to contractual and non-contractual claims to damages on the part of the Buyer that are based on delivery of non-conforming goods resp. goods subject to rights or claims of a third party unless application of regular statutory time-bar periods (section 195, section 199 of the German Civil Code) would lead to a shorter time-bar period in individual cases. This shall at any rate not affect the time-bar periods laid down in the German Product Liability Act (Produkthaftungsgesetz - ProdHaftG). Otherwise solely statutory time-bar periods shall apply to damage claims by the Buyer.

§ 17 Place of Fulfilment, Applicable Law, Arbitration Clause

(1) The place of performance for the delivery of the purchase object in the general case of delivery FCA (Free Carrier) from the delivery plant in Coesfeld (FCA Incoterms® 2020) is the delivery plant in Coesfeld.

By way of derogation, a different Incoterm 2020 may also be agreed by individual agreement (cf. § 3 (3):
If, deviating from sentence 1, the Incoterms 2020 clauses CPT, CIP, CFR, CIF, DAP, are agreed or if, deviating from sentence 1 and § 3 (3), the clause DDP is agreed, the SELLER shall indicate the transport costs included in the price separately in the deviating agreement. The place of performance shall be the place of handing over the goods to the first carrier in case of agreement of clause CPT or CIP, on board the vessel in the port of shipment in case of clause CFR or CIF, and the place of destination in case of clause DDP or DAP.

If, in case of agreement of clauses CPT, CIP, CFR, CIF, DAP or DDP, the transport costs actually incurred, as evidenced by the relevant invoice documents, differ from the aforementioned calculated transport costs, the BUYER shall bear the difference, both in the event that the transport costs actually incurred (or transport costs to the place of delivery actually incurred) are higher than the calculated transport costs and in the event that they are lower than the calculated transport costs.

The place of performance for payments rendered by the Buyer and for all other reciprocal claims is the business offices (administrative headquarters) of the Seller.

(2) The Agreement, including any and all disputes arising from or related to the AGREEMENT and all legal relationships between the Seller and the Buyer are governed by the substantive laws of Germany. The United Nations Convention on Contracts for the International Sale of Goods (CISG) shall apply, if no deviating regulations are determined, Art. 6 CISG.

(3) (For) all disputes, differences of opinion and/or claims directly or indirectly emanating from or in connection with this Agreement including its validity, invalidity, its being null and void, practicability and impracticability, violation or dissolution,

a) with Buyers having their head business offices (administrative headquarters) in the EU, Switzerland, Norway or Iceland, the exclusive place of jurisdiction shall be the courts having jurisdiction over the Seller. The Seller shall be entitled, however, to take legal action at the general place of jurisdiction of the Buyer.

b) with Buyers which do not have any head offices (administrative headquarters) in the EU, Switzerland, Norway or Iceland, shall be finally settled according to the Arbitration Rules and the Supplementary Rules for Expedited Proceedings of the German Institution of Arbitration e.V. (DIS) in force on the date when the Notice of Arbitration is submitted in accordance with these Rules without recourse to the ordinary courts of law. The court of arbitration shall be composed of three arbitrators. The place of arbitration is Münster/Westf., Germany. The language of the arbitral proceedings is German. The choice of law in para. (2) shall also apply with respect to this arbitration agreement.

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