KRONES INC
P.O. Box 321801, FRANKLIN WI 53132, USA

Delivery address
XXXXXXXXXX-PAULSBORO LUBE PLANT
1001 BILLINGSPORT ROAD, PAULSBORO NJ 08066, USA

Detailed quotation of 12.09.2014
Krones guarantees a 97% efficiency on the packer based on Din Standard 8782.
26459065 / Layout PL094556B0000006

5 qt XXXXX 1 bottles, 2x2 case @ a speed of 8.400 bottles per hour
5 qt XXXXX 1 bottles, 3x1 case @ a speed of 5.400 bottles per hour
5 qt conventional bottles, 2x2 case @ a speed of 8.400 bottles per hour
5 qt conventional bottles, 3x1 case @ a speed of 5.400 bottles per hour
1 gallon conventional bottles, 2x2 case @a speed of 8.400 bottles per hour
1 gallon conventional bottles, 3x1 case @ a speed of 5.400 bottles per hour

KRONES, INC
9600 South 58th Street
Franklin, WI 53132-6300

Sales representative/Subsidiary
John Muha
Krones Inc.
FRANKLIN WI 53132-0100
USA
Tel. 973-829-1040
Fax 973-829-1305
john.muha@kronesusa.com

Internal contact person
Lisa Wentland
Franklin
Tel. +1 414 409 4028
Fax
Lisa.Wentland@kronesusa.com

KRONES, INC
9600 South 58th Street
Franklin, WI 53132-6300

Sales representative/Subsidiary
John Muha
Krones Inc.
FRANKLIN WI 53132-0100
USA
Tel. 973-829-1040
Fax 973-829-1305
john.muha@kronesusa.com

Internal contact person
Lisa Wentland
Franklin
Tel. +1 414 409 4028
Fax
Lisa.Wentland@kronesusa.com

KRONES

Management Summary

Management Summary
We do more
KRONES installs 150 to 170 packaging lines per year. Each line is a combination of machines manufactured by KRONES and by 3rd party vendors (OEMs). Based on experience in integration projects ranging in varying levels of complexity

KRONES can offer a customized integration solution that understands product, market, and machinery synergies. Our experience in these areas offers a unique blend of engineering professionalism and technical acumen not to be matched with other suppliers. In selecting KRONES as a turnkey-supplier or integrator, YOU can rely on this depth of experience and high level of know-how.

Service support / Project execution
KRONES has a global service team comprised of over 1400 resources worldwide. Our service organization is decentralized offering 7 Life Cycle Centers globally. Thus, KRONES offers the assurance that regardless of project or country your corporate goals will be met in a timely, professional manner.

The KRONES Inc. domestic integration team is headquarted in Franklin, Wisconsin. Based on the scope and dimension of this Project, a domestic team leader will be selected along with assigned technical divisions that include Electrical, Mechanical, Software, and IT. A combination of technical expertise will be drawn on from Franklin as well as KRONES AG with parallels in all disciplines both domestically and internationally.

Project Management
KRONES has a team of 175 Project Managers, speaking over 20 languages. These Project Managers are the key contact, communicating to YOU and all subsuppliers. This leads to a reduction in communication errors and a clear definition of responsibility. Of course we will select the best possible Project Manager for your project based on know-how, experience, and language skills.

Strong Partnership
A strong partnership needs two strong partners and a good and trustful relationship. This is especially true when considering a long term business strategy. It is crucial to select a vendor who can offer its products and services today and also in 5 to 10 years from now. YOU can trust in KRONES as the right partner for a long term business relationship.

Installation costs depending on work involved:
• The customer is responsible for complete machine installation. This includes but is not limited to uncrating, transport, leveling, line integration, wiring, piping, and removal of any existing equipment.
• Installation supervision, machine start up, and machine commissioning are available at an additional cost on a time and material basis for both Krones equipment and any third party OEM equipment supplied with the original order.
• Scheduling of required services are the responsibility of the customer or their designated agent in charge of the installation project.
• A purchase order must be issued to Krones Incorporated before the dispatching of any technicians to the customers location.
• Services will be invoiced per the current General terms and conditions of the Krones Incorporated Service Department Please contact Krones Technical Service Department at 414-409-4440 from 7:00am to 4:30pm central time to obtain the latest service rates, to schedule any of these services, or if you have any additional questions.

Management Summary

Quote validity:
This quote is valid for 30 days

Sample material:
Machine sizing and pricing is subject to review and evaluation of actual samples and product specifications please do not hesitate to contact me.

Table of contents

Sales and delivery conditions

Contract basis:
according to Incoterms 2010 of International Chamber of Commerce

Pricing:
The prices do not include any access devices (stairs, ladders, platforms etc. corresponding to design EN ISO 14122-2/-3) according to EU Declaration of Confirmity 98/37/EU annex 1, figure 1.6.2, as far as the access devices are not included and described in the document. Regarding these access devices, the parties will make separate price agreements whether the access devices are not provided by the customer.

Delivery and prices (in Euro) are DAP (Delivered at Place)

Warranty
The warranty period starts from the end of commissioning, or at latest 6 months after delivery, if the stipulated acceptance schedule can not be adhered to due to reasons for which KRONES AG is not responsible. If the customer is in default of acceptance, the warranty period starts at the date of the default of acceptance.

Limitation of Liability, Indemnity
Warranty for defects does not cover wear parts of normal use.
Furthermore, KRONES shall not be liable for defects or damages arising for the following reasons: improper use, poor maintenance, modification without the written consent of KRONES, incorrect repairs carried out by the customer, non-compliance with operating manual and instructions, normal wear and tear, chemical, electronic or electrical conditions not mentioned in the agreement, faulty replacement materials, and defects based on designs stipulated or defined by the customer or on materials stipulated, defined or supplied by the customer, including sample materials, and on any other items supplied by the customer. KRONES is not liable for any indirect damages and/or consequential damages (including damages resulting from lost profit, production shortfall and/or works stoppage), whatever the legal basis. This exclusion of liability does not apply to claims pursuant to Section 1 ff of the German Product Liability Law (Produkthaftungsgesetz), nor to claims due to a maliciously concealed defect, nor to claims of the customer for damages due to gross negligence (premeditation/gross negligence) or due to the acceptance of a quality warranty, nor to claims due to injury to the life or limb or health of the customer, his organs and his employees, nor to claims due to a hindrance of performance existing at the time of signing the agreement which was known to KRONES at the time of signing the agreement or ignorance of which was within the control of KRONES. The aforementioned arrangements do not change the burden of proof to the disadvantage of the customer.

Miscellaneous
Any and all legal relationships resulting from the contract and from any ancillary business and/or consequential business for the contracting parties and for their legal successors shall only be governed by the law of the Federal Republic of Germany. The present choice of law shall also be governed by the law of the Federal Republic of Germany. The UN Convention on Contracts for the International Sale of Goods (Convention of the United Nations of 11 April 1990) shall not be applied. In addition, the General Terms and Conditions of Sale and Delivery of KRONES shall apply.

Commissioning
Commissioning is completed if a saleable product is available at the inferface downstream the KRONES machine or "on pallet" in any configuration of the sold processing programme. A prerequisite for observation of the commissioning deadlines is the customer´s timely and appropriate compliancy with the contractual obligations.
Commissioning is also considered completed if the stipulated commissioning schedule can not be adhered to, and KRONES AG is not responsible for this failure. KRONES AG announces successful commissioning.
In the event of any kind of obstructions for which KRONES AG is not responsible, KRONES AG is authorised to demand an adequate prolongation of the commissioning term and additional payment for compensation of additional work and/or costs.

Acceptance conditions, on-site assembly
Acceptance is carried out according to DIN 8782 / 8783 / 8784.
Times such as handling parts change-over, maintenance times, CIP, are considered downtimes according to DIN 8782 / 8783 / 8784. Acceptance begins with a flying start, i. e., the line is filled prior to the start of the acceptance procedure. Then, production will be stopped and time measurement will be started once the bottle stop at the filler has been released.

The acceptance procedure lasts 1 x 8 hours.

Acceptance is carried out with a defined configuration of the processing programme. This processing programme must be determined during a meeting preliminary to the acceptance procedure. It must have already been run on the respective KRONES machine.
During performance acceptance, the efficiency stipulated in the contract must be met.
In the event of unforseeable malfunctions, such as power failures, component failures, or failure of devices not included in the KRONES scope of supply, the acceptance procedure will be interrupted for the times required for elimination of the malfunction. These times are considered downtimes according to DIN 8782 / 8783 / 8784.The test time will prolonged accordingly.
The line is operated by the customer´s operators instructed by KRONES. The acceptance is carried out by KRONES personnel in cooperation with the customer.

Sample Material
During order clarification, sample material of at least 1 to 5 pieces of each unit to be handled (containers, labels, packs, etc.) including the respective customer drawings must be provided so that classification and machine dimensioning will be possible.
Customer object drawings should be provided as IGES files for KRONES 3D-CAD.
If a PET container already exists on the market, the customer should provide mould, customer drawing, and sample bottle.
If a container is newly designed, the KRONES Plastic Technology is to be involved as early as possible.
Also for proposals of labels, shrinkpacks or carton, the respective KRONES divisions should be involved as soon as possible for clarification.

Test material
To guarantee the test run in the KRONES factory stipulated in the contract, the complete customer objects according to test material request with reference to the scope of the order must be provided.
The test material request is sent by the KRONES sales department to the customer within 10 days after order notification. The customer must provide the test material free of charge and carriage paid.
The test material must have been provided 8 weeks prior to the delivery of the KRONES machines so that it will be available prior to commissioning of the respective KRONES machine.
The complete test material packages must always be delivered at the KRONES goods receipt 1/Neutraubling so that they can be forwarded to the individual plants. The test material and the bill of delivery must be marked with the respective order number.

Delivery date test/sample material
Date confirmations, particularly delivery, commissioning, or acceptance dates are based on the provision of sample material 5 days after placement of the order at the latest, and test material not later than 8 weeks prior to machine delivery. If these dates are not adhered to, set-up or the test for proper operation will be carried out at the customer´s site and confirmed dates will be postponed accordingly.

Delayed test material delivery
The quoted prices refer to machine set up and test for proper operation at KRONES. If these can be carried out only at the site, extra costs will arise which will be charged to the customer if he is responsible for this change of location.

General Standard Terms and Conditions
The General Terms of Performance, Sale and Delivery of KRONES (Allgemeine Leistungs-, Verkaufs- und Lieferbedingungen von KRONES) and the General Terms of Installation of KRONES (Allgemeine Montagebedingungen von KRONES) shall apply in addition to the above. if any provisions of the General Terms of Performance, Sale and Delivery of KRONES (Allgemeine Leistungs-, Verkaufs- und Lieferbedingungen von KRONES) and the General Terms of Installation of KRONES (Allgemeine Montagebedingungen von KRONES) contradict the provisions of the current document, the latter shall take precedence. The customer's terms of purchase are excluded. The General Terms and Conditions of Performance, Sale and Delivery and General Terms and Conditions of Installation of KRONES AG will be provided on request.

Packing
As far as the packaging rules and regulations oblige KRONES to take back the

Sales and delivery conditions

transport packing material, the costs for the return of the packing material and the reasonable costs for its recycling are born by the customer. If the packing material can not be used again, the customer takes over the costs for material recycling. Additionally, the customer has to take over the costs for customs duties, costs for customs clearance caused by the return of the packing material.

A crane harness is disposed as a loan. Whether a crane harness is necessary for transport or positioning, KRONES reserves the right to pick up and take back the crane harness from the customer at own expense. The crane harness remains property of KRONES.

The customer is obliged to inform KRONES in due time and without having to be requested all proper packing requirements specific to the country (legal and real type, especially due to specific climatic conditions). If KRONES is not informed in due time, KRONES standard packaging as described in the quotation will be applied. In each case, the liability of KRONES is excluded due to insufficient packaging.

Freight / Insurance
The customer is obliged to take over immediately the supplied machine(s) or equipment (hereinafter called "delivery item") upon notice that the goods are ready for dispatch or upon delivery according to the delivery agreement. In the case that the customer does not accept accordingly the conventionary delivery item, he is obliged to take over the caused costs for storage. Should KRONES receive payments with delay due to this delayed acceptance, the customer is obliged to compensate the interest loss according to§ 288 BGB. We reserve the right to claim further compensations. In case of a delayed acceptance of the delivery item, the customer is obliged to effect the payment, whose payment date depend on the acceptance, as though the delivery item has been accepted.

Unless otherwise agreed, the risk of accidental loss and accidental deterioration of the delivery item are passed from KRONES to the customer with transfer to the first carrier. If the delivery item or parts of it are ready for dispatch but the delivery or transfer is delayed due to customers responsibility the risk of accidental loss and accidental deterioration is passed to the customer with the day of readiness for dispatch.

If KRONES has arranged the transport of the delivery item and if a transport damage or defects occurring during transport after transfer to the carrier KRONES transfers, if required by the customer, a title to insurance benefits to the customer for resulting claims against the transport insurance(s) and/or the carrier - with exclusion of liability of existence of these claims. This is effected step by step against payment of the agreed total price of the delivery item and all owed costs. Further claims of transport damage or defects occurred during transport against KRONES are excluded. This also applies if the delivery item includes assembly or turnkey installation.

1. OFFER; GOVERNING PROVISIONS:

This quotation is an offer or counteroffer by KRONES, Inc., a Wisconsin corporation ("Seller"), to sell to the buyer identified in this quotation ("Buyer") the goods and/or services described in this quotation (the "Goods") in accordance with these General Terms and Conditions (these "Terms and Conditions"), is not an acceptance or confirmation of any offer made by Buyer, and is expressly made conditional on assent to these Terms and Conditions. No additional or different terms or conditions will be binding upon Seller unless specifically agreed to in writing by Seller. Seller hereby objects to any such additional or different terms or conditions contained in any request for quotation, request for proposal, purchase order, notice of award or other form, document or communication heretofore or hereafter received from Buyer. This quotation, including these Terms and Conditions, constitutes the entire agreement between the parties regarding the subject matter hereof (this "Contract"). Except as expressly contemplated herein, this Contract may not be altered, modified or amended, expect by a writing signed by both parties hereto. This Contract may not be suspended, terminated or cancelled by Buyer except upon terms and conditions accepted by Seller in writing.

2. LAYOUTS AND TECHNICAL DATA:

Buyer shall, at its sole expense, promptly furnish Seller with such layouts, technical specifications, sample materials, product specifications and any and all other data and materials as may be necessary for the engineering and manufacture of the Goods and for all efficiency testing, acceptance testing and the like (if any). Seller has provided or intends to provide a questionnaire in connection with Buyer's furnishing of such data and materials. Buyer shall submit all data and materials as contemplated by such questionnaire within ten (10) calendar days after Buyer accepts this quotation and submits its order for the Goods hereunder. Buyer shall not thereby be relieved of its obligations under the first sentence of this Section 2, however. Any and all costs that result from any changes in any such layouts, technical specifications, sample materials, product specifications and other data and materials so furnished shall be charged to Buyer, and any delay caused by such changes shall extend the delivery date. All such layouts, technical specifications, sample materials, product specifications and other data and materials shall be delivered at Buyer's sole expense to such KRONES AG facility (or other KRONES facility) as may be designated by Seller.

3. PRICE; DELIVERY TERMS:

(a) The purchase price payable to Seller for the Goods will be as set forth in the quotation, subject to adjustment as contemplated by these Terms and Conditions. Unless otherwise provided in this Contract, the Goods shall be delivered to Buyer EXW plant of manufacture (as that trade term is defined in Incoterms 2010). Buyer shall bear all expenses paid or incurred by Seller in delivering the Goods.

(b) In the absence of shipping instructions agreed upon by the parties, the Goods are to be shipped by whatever shipping method Seller deems appropriate, and, in any event, the Goods are at the risk of Buyer from and after delivery and Buyer assumes all responsibility for shortage, loss, delay or damage in transit. All scheduled delivery dates are approximate. Seller shall not be liable for any damage or liability as a result of any delay, failure to deliver or other failure to perform due to any cause beyond Seller's reasonable control, including but not limited to any embargo or other governmental act, regulation or request, civil insurrection, civil disturbance, war, act of terrorism, fire, flood, hurricane or other act of nature or act of God, accident, strike or other labor disturbance, slowdown, act of Buyer, shortage of materials or failure of suppliers or subcontractors to satisfactorily meet scheduled deliveries, or any other factor or event beyond Seller's reasonable control. In the event of any such delay, the date of delivery shall be extended for a period equal to the time lost because of the delay. Similarly, if Buyer fails to make the initial payment as required by this Contract or fails to furnish a completed questionnaire with all data or the required material within ten (10) calendar days after it orders the Goods, the delivery date shall be extended on the same basis. Use of the Goods by Buyer shall constitute a waiver of any claim for delay.

4. IMPAIRMENT OF CREDIT:

If Buyer (a) is or becomes insolvent or is unable to pay its debts as they mature, (b) files or has filed against it a bankruptcy, insolvency or any similar petition or is made the subject of an "order for relief" as that term is defined in the U.S. Bankruptcy Code, or (c) fails to make any payment hereunder as and when due, or if Seller has a reasonable belief that any of the foregoing is impending or otherwise in good faith doubts the ability of Buyer to pay the purchase price for the Goods, then Seller may at its option (i) suspend performance hereunder, (ii) terminate this Contract, (iii) demand cash payment in advance before shipments are made, regardless of the payment terms otherwise agreed upon, or (iv) otherwise require additional security for any remaining balance of the purchase price.

5. LATE PAYMENT:

Buyer agrees to pay interest at the rate of eighteen percent (18%) per annum, or at the highest rate permitted under applicable law, whichever is less, on invoiced amounts not paid when due and further agrees to reimburse Seller, upon demand, for any costs (including without limitation attorneys' fees and legal costs) incurred by Seller in the collection of any amounts owed to Seller hereunder.

6. TAXES AND DUTIES:

The Aggregate Purchase Price does not include any applicable sales, use, value-added, excise or similar taxes, customs or other duties imposed on the sale of goods or services pursuant hereto (collectively, "Sales Taxes"). All such Sales Taxes are ultimately the responsibility of Purchaser and Purchaser hereby indemnifies KRONES in respect of such Sales Taxes. For jurisdictions in which KRONES is required to pay Sales Tax directly to the governmental entity, it will issue an invoice to Purchaser (either as a separate line item in an invoice or as a separate invoice) for the amount of the Sales Tax and Purchaser will promptly pay to KRONES the amount of the Sales Tax reflected in such invoice. KRONES uses the Vertex computer software to calculate Sales Taxes and is required to pay Sales Taxes in most cases on a monthly basis. Therefore, if Purchaser believes that calculation of Sales Tax on the KRONES invoice is in error, it will (i) nevertheless

Sales and delivery conditions

promptly remit to KRONES the amount of the Sales Tax reflected in such invoice, and (ii) give KRONES written notice of its calculation of the Sales Tax specifying the basis for the difference in detail and detailing its calculation of the applicable Sales Tax. Provided that KRONES finds that there is a reasonable basis for Purchaser's basis for disputing the amount of Sales Taxes, KRONES will undertake commercially reasonable efforts to assist Purchaser in filing for a refund or credit on Purchaser's applicable tax return for such disputed amount of Sales Taxes. If Purchaser believes that some or all of the goods or services purchased under this Agreement are exempt from Sales Tax, it shall before KRONES issues its first invoice under this Agreement provide KRONES with the form of exemption certificate or other applicable instruments required by applicable law (if any) duly executed by Purchaser. If KRONES, using its reasonable judgment, determines that it is permitted without liability to rely on such exemption certificate or other instrument, it will forego the collection of Sales Tax for those items that are covered by the exemption certificate. If buyer provides seller with a tax exemption certificate or otherwise instructs seller that some or all of the transaction is tax free or that buyer will pay any sales or use tax directly, and ultimately some or all of the applicable tax is imposed on seller, buyer will indemnify seller against the taxes so imposed and any other costs arising therefrom.

7. INSPECTION AND ACCEPTANCE:

The Goods shall be deemed finally inspected and accepted within ten (10) calendar days after receipt thereof unless notice of a claim is given in writing to Seller within such time period.

8. INSTALLATION AND COMMISSIONING:

(a) Installation, commissioning and efficiency testing are not included in the purchase price for the Goods and must be specifically contracted for. The efficiency test(s) (if any) will be conducted in accordance with Seller's standard protocol in effect at the time such tests are contracted for and will be conducted pursuant to the DIN 8782 standard.

(b) A service engineer to aid in the installation and start-up of the Goods is available at an additional cost pursuant to Seller's "General Terms for Technical Service" in effect at the time of contracting therefor. The period of service is generally dependent upon the type of machinery being installed.

(c) It is understood that one (1) "day" of service time is defined as eight (8) hours per day so that one (1) "week" of service amounts to forty (40) hours of time and each "week" or "day" additional are multiples of those respective times. It is understood that a reasonable charge for travel expenses will be made if such service time, because of a delay in the installation or of other factors or events within Buyer's control, is not provided on consecutive workdays. Also, an additional charge and traveling expense shall be made in the event the time exceeds the allowed period.

(d) It is Buyer's responsibility (i) to make sure that Buyer's facility where the Goods are to be installed conforms to the specifications and drawings furnished to Seller or approved by Buyer, (ii) to procure any and all permits, licenses and similar authorizations necessary for Seller to perform its obligations at such facility, and (iii) in general, to make sure that such facility is adequately prepared for installation and operation of the Goods. Installation does not include start-up services unless such start-up services are specifically contracted for. Such start-up services are available for an additional charge on a time and materials basis.

(e) If installation and commissioning are specifically contracted to be performed by Seller, then, promptly upon completion of installation, Seller will begin the process of commissioning the Goods in accordance with such contract. Commissioning typically will need to be conducted using the same kinds of packaging and bottles throughout the process. Therefore, Buyer agrees that for the duration of any such commissioning, the Goods will be run using the same bottle and packaging type during production. If Buyer does not adhere to such commitment, then the ability of Seller successfully to conduct an efficiency test or tests will have been significantly compromised, and as a result, the requirement to conduct an efficiency test or tests will be deemed waived and any and all such tests will be deemed to have been successfully completed.

(f) Training is not included in this quotation unless expressly included and specifically itemized herein as a purchased item.

9. WARRANTY:

(a) Seller warrants that the Goods shall (i) be free from defects in materials and workmanship for a period (the "Warranty Period") ending on the earlier to occur of (x) 6,000 hours of operation on the Goods or (y) expiration of one (1) year after the first to occur of commencement of production by the Goods of saleable product or lapse of one hundred twenty (120) calendar days after the date of arrival of the Goods at Buyer's facility; and (ii) will be transferred free and clear of any third-party liens. The foregoing warranties are conditioned on Buyer paying the full purchase price for the Goods.

(b) This warranty is expressly limited to repair or replacement of the affected Goods (or component thereof). To the extent Seller elects to replace the defective part or component, its sole obligation shall be to provide the replacement without charge, and any associated freight or labor is not included in the warranty. This warranty shall not apply to any part of the Goods which becomes defective through misuse or abnormal use that is not contemplated as reflected in this Contract, nor shall it apply if the prerequisite conditions detailed in the warranty provision itself are not satisfied. This warranty shall not apply to any part of the Goods which becomes defective due to normal wear and tear or other causes that do not arise from any defect in the Goods. This warranty does not apply to any parts or components manufactured by third parties, including electrical components. Such parts and components are instead covered by the applicable manufacturer's warranty. Seller shall not be responsible for any defect or damages actually caused by failure to follow the operating instructions reflected in the Goods' various manuals, or failure to comply with the recommended maintenance program reflected in the Goods' various manuals.

(c) ***Important - Please Read Carefully*** Except as provided in these terms and conditions, the goods are provided "as is" with all faults and without warranty of any kind. Except as provided in these terms and conditions, Seller expressly disclaims all other warranties, express and implied, including, but not limited to, the implied warranties of merchantability, of fitness for a particular purpose, and those arising from course of dealing or usage of trade. Seller does not warranty that the goods will meet Buyer's requirements or expectations, or that the operation of the goods will be uninterrupted or error-free. Seller does not warrant or make any representation regarding the use or the results of the use of the goods in terms of their correctness, accuracy, quality, reliability, appropriateness for a particular task or purpose or otherwise. No oral or written information or advice given by Seller shall create a warranty or in any way expand the scope of this warranty. This Section 9 constitutes the entire warranty provided under this contract.

10. BUYER'S EXCLUSIVE REMEDIES AND PROCEDURES REGARDING CLAIMS UNDER THE WARRANTY:

(a) Buyer shall notify Seller of any claim of defective material or workmanship (collectively the "Warranty Defect") in writing promptly upon its discovery by Buyer.

(b) Promptly upon receipt of a written notice of a Warranty Defect, Seller shall attempt to validate the Warranty Defect. If the Warranty Defect is valid, Seller shall, at its option, repair or replace the affected pieces of the Goods. Such repair or replacement shall be made as quickly as commercially reasonably possible. Any repaired or replaced Goods shall themselves be deemed to be covered by the warranty hereunder for the balance of the Warranty Period only. ***Important - Please Read Carefully*** Seller's sole obligation in respect of its warranty obligations hereunder shall be repair or replacement of the affected goods (at Seller's option).

11. LIMITATION OF LIABILITY:

Important - Please Read Carefully In no event shall Seller, its affiliates or contractors be liable to Buyer or any third party for any incidental or consequential damages (including, without limitation, indirect, special, punitive, or exemplary damages for loss of business, loss of profits, loss of goodwill or business reputation, business interruption, loss of data, or loss of business information) arising out of or connected in any way with this contract, or for any claim by any third party, whether arising out of breach of contract, warranty, tort (including negligence, errors and omissions and strict liability) or other theories of law, even if Seller has been advised of the possibility of such damages. This limitation of liability shall apply even if the express warranty set forth above shall fail of its essential purpose. The maximum aggregate liability of Seller arising out of or related to breach of contract, breach of warranty (including the cost of repairing or replacing the goods), tort (including negligence, strict liability and errors and omissions) or any other cause or form of action shall not exceed the amount of

Sales and delivery conditions

the purchase price actually received by Seller hereunder. The foregoing is not intended to limit Seller's liability in tort for personal injury (including death) or physical damage to property caused by Seller.

12. SECURITY INTEREST; INSURANCE:

Buyer grants to Seller a security interest in the Goods to secure payment of the purchase price therefor and all other fees or amounts, which are or become due and payable to Seller. In the event of nonpayment in breach of this Contract, or disposition or transfer of any of the Goods to a third party, Seller shall be entitled to foreclose on its security interest in the Goods. Seller is hereby authorized to file any financing statements or other documents to perfect the security interest granted in this Contract, including a UCC-1 statement in a form that is satisfactory to Seller. Buyer shall upon request provide Seller with a legal description of the location of Buyer's facility where the Goods are installed to aid Seller in making a "fixture filing". Seller's security interest in the Goods shall terminate upon Buyer's full and final payment of all sums due and owing. In addition, for so long as any amount of the purchase price for the Goods remains unpaid, Buyer shall keep the Goods insured against all casualty or loss for not less than the full amount of such purchase price with an insurer reasonably acceptable to Seller, and Seller shall be named an additional insured and loss payee under such insurance policy. Such policy shall provide that Seller will be notified not less than thirty (30) calendar days prior to cancellation or amendment of the policy. However, the foregoing shall not change the time at which the risk of loss passes to Buyer, which shall remain in all events as set forth in Section 3 hereof.

13. SPECIFICATIONS:

Seller reserves the right to alter the design or specifications of the Goods at any time prior to delivery so long as such alteration does not materially change the basic function of the Goods or increase the purchase price therefor.

14. PATENTS:

Seller shall not sell to Buyer any Goods the sale of which infringes on any intellectual property right of any third party. Seller shall indemnify and hold Buyer harmless from any third-party claim against Buyer arising from breach of the foregoing sentence if, and only if, Buyer notifies Seller thereof within a reasonable period of time after Buyer is or becomes aware of such claim and gives authority, information and assistance (at Seller's expense) for the defense of such claim. If at any time Seller determines that there is a substantial question of infringement or in case the sale of the Goods or any part thereof is judicially held to constitute infringement and the use of the Goods or part thereof is enjoined by reason of such infringement, then in addition to the foregoing indemnification obligation, Seller shall have the right (but not the obligation) to, at its own expense, either (a) procure for Buyer the right to continue using and selling the Goods or part thereof; or (b) replace the Goods or part thereof with non-infringing goods; or (c) modify the Goods or part thereof so that they become non-infringing; or (d) remove the Goods and refund the purchase price and the transportation and installation costs thereof. The foregoing states the entire liability of Seller for patent infringement or other intellectual property infringement relating to the Goods.

The preceding paragraph does not apply to modifications made by Buyer to any goods (including the Goods), nor does it apply to any goods (including the Goods) or parts thereof manufactured to Buyer's design or specifications, and Seller shall have no liability or obligation whatsoever under the preceding paragraph in respect of any such goods. As to any and all such goods, Buyer shall indemnify and hold Seller harmless from and against any and all claims that such goods infringe the rights of any third party.

15. SAFETY:

Buyer assumes responsibility for the operation of the Goods in accordance with sound safety practices. Buyer shall use and shall require its employees to use any and all safety devices, guards, signs, instructions and safe operating procedures required by law, regulation, code or applicable safety standard or by Seller, and Buyer agrees not to remove or modify any such safety device, guard, sign, instruction or procedure for use provided with the Goods. Buyer shall indemnify Seller from and against any and all losses, liabilities, damages and expenses (including, without limitation, attorneys' fees and other costs of defense) that Seller may incur as a result of any breach by Buyer of this Section 15.

16. CONTRACT TERMS:

The terms and conditions of this Contract shall be considered to be the terms and conditions governing any purchase order issued by Buyer to Seller and any sales contract entered into by Buyer and Seller, and this Contract shall constitute the complete and exclusive statement of the terms and conditions hereof and thereof and shall supersede all prior oral and written statements of any kind whatsoever made by either party or their respective representatives. No statement or writing subsequent to this quotation purporting to modify or add to the terms and conditions hereof shall be binding unless consented to in writing by duly authorized representatives of Seller. Specifically, whenever a separate statement or document is issued by Buyer to Seller that is intended to add, delete or change purchase contract terms as stated herein, that document shall be binding only when signed by two (2) officers of Seller. Such a separate document, signed by such officers, shall override only those terms and conditions hereof as are specifically referenced in such separate document. All other terms and conditions of sale hereof not referenced or overridden in any separate document will remain binding. ***Important - Please Read Carefully*** This Contract shall be governed by and construed in accordance with the internal laws of the State of Wisconsin without reference to principles pertaining to conflicts of laws. The rights and obligations of the parties hereunder shall not be governed by the 1980 U.N. Convention on Contracts for the International Sale of Goods. This Contract shall be deemed to have been executed and performed in the State of Wisconsin.

MISCELLANEOUS TERMS, CONDITIONS AND POLICIES GOVERNING SALES AND QUOTATIONS

A. All prices are quoted and payable without set-off or deduction in U.S. Dollars unless otherwise specified in writing by Seller. Quoted dollar amounts are subject to examination by Seller of final sample containers, product specifications and labels, which may increase or reduce final purchase price based upon the specific geometry and resulting complexity. In these cases, Seller will make Buyer aware of such changes by sending a "confirming" quotation.

B. Quoted delivery dates are based upon timely receipt of final bottle and label and other required samples, completed and signed SAP document and line layout. All delivery dates are approximate.

C. All prices are subject to change by Seller during the time prior to acceptance of Buyer's purchase order by Seller. Such changes will be communicated to Buyer in writing.

D. Any requested termination of an order, or any part thereof, must be submitted to Seller in writing by Buyer and, if accepted by Seller in its sole discretion, is subject to termination charges.

E. Payment Terms. The Aggregate Purchase Price shall be payable as follows:

(i) Thirty percent (30%) of the Aggregate Purchase Price shall be payable immediately upon execution of this Agreement;

(ii) Sixty percent (60%) of the Aggregate Purchase Price shall be payable prior to shipment of the Equipment.

(iii) Five percent (5%) of the Aggregate Purchase Price shall be payable within fourteen (14) days after the earlier of (A) the first date of production by the Equipment of salable product, and (B) the date that is 60 days after the date of the Bill of Lading for the Equipment;

(iv) The balance of the Aggregate Purchase Price for Equipment shall be payable immediately upon the earlier of (A) successful completion of the KRONES Efficiency Test applicable to such Equipment, and (B) the date that is 180 days after the date of the Bill of Lading for the Equipment.

F. This Contract shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns. This Contract shall not be assigned by Buyer without the prior written consent of Seller. Any such attempted assignment by Buyer without such prior written consent shall be null and void and without legal effect.

G. If, for any reason whatsoever, one or more of the provisions of this Contract shall be held or deemed to be illegal, invalid or unenforceable, the remaining provisions of this Contract shall not be affected thereby and shall remain in full force and effect.

Sales and delivery conditions

H. All disputes arising out of or related to this Contract shall be submitted to binding arbitration under the Commercial Rules of Arbitration of the American Arbitration Association. All such proceedings shall be held in Milwaukee, Wisconsin.

These Terms and Conditions are subject to change upon notice by Seller.

Sales and delivery conditions

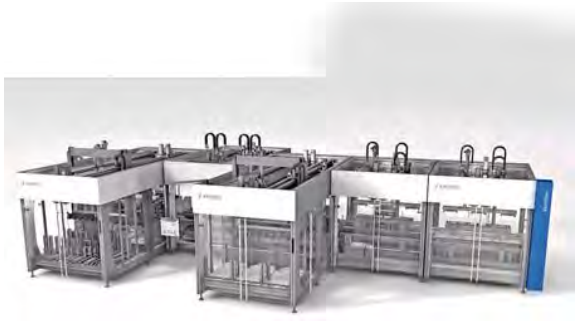
John Muha

Lisa Wentland

1. Packaging line VARIOLINE 2M

Model description

The packaging line VARIOLINE is a highly flexible system which can provide a multi-stage packaging process. Depending on the machine requirements primary or secondary packagings can be made. This concept allows packing of losoe containers in multipacks or multipacks in plastic crates, trays, folder-type case or wrap-around cartons. Depending on the combination or number of used standard or compact modules(2M) different final packings can be created with the VARIOLINE. The individual units (modules) are applied according to the processing programme for different tasks. The carton production module includes the supply, erection and gluing of carton blanks. The separation and grouping of loose containers as well as the placing into the primary packing is made by the feed module. The basic module places multipacks (primary packing) into secondary packing or is used as carton sealer.



System advantages

- Short change-over times by partially automated change of tools and automatic tool detection
- Adaptation to new packs variants by modular machine concepts (tools)
- Machine extension without having an impact on existing formats
- Ergonomically optimised design of the individual components
- Easy access through high machine frame and large access doors

1. Packaging line VARIOLINE 2M

Prices

Basic machine
- Basic equipment
- Control cabinet assembly according to UL508a/CSA
- Modules and machine feeds

Customer-related expansions
Additional electrical equipment
- Main and auxiliary contactors, make: Allen Bradley
- Manufacturer relay, Allen Bradley
- Motor protector, make: Allen Bradley
- Manufacturer signal beam, Allen Bradley
- Conductor cross-section of control voltage inside of housings minimum 18 ampere-turns
- Conductor cross-section 2-wire min. 14 ampere-turns inside and outside of housings
- Conductor cross-section 3-wire min. 16 ampere-turns inside and outside of housings
- Core marking according to contact/terminal numbers with BRADY marker
- Wire colours, special design
- Frequency converter, make: Allen Bradley
- Motor isolator for all drive motors in the conveyor area (separate isolation and display for per grouped unit)
- Network connection
- Control cabinet with electrical door lock
- Indicating and control devices, make: Allen Bradley
- Power lines according to UL/CSA standards
- Cooling unit for control panel, make: Krones, in sheet steel

Customer requirement
- * Robatech - auto glue feed system
- special electric:

  - Signal exchange via Ethernet.
  => See position "Signal exchange via Ethernet" and "Network technology".

Notes

Krones standard machine design 2M Varioline.
- module 1 = RSC erecting + bottle inserting

1. Packaging line VARIOLINE 2M

- module 2 = RSC sealing
* Containers will arrive in 3 or 2 lanes at the Varioline infeed.

1. Packaging line VARIOLINE 2M

Machine data

Machine design	
■ Machine model	2M
■ Machine type	Standard width of processing unit in the modules
■ Processing by	Triple tool holder
■ Number	two modules
Technical data	
■ Varioline electrical equipment *	****Special electrical components are not possible with this machine.****
Varioline module 1	
■ Function module 1 *	- create repacking - place container in pack
■ Design of module 1	Feed module
■ Module 1	2 handling axes
■ Module 1	two conveyor lanes for primary packaging
■ Module 1	one conveyor lane for secondary packaging
■ Infeed, module 1	H-Version
Varioline module 2	
■ Function module 2 *	- close repacking - push repacking
■ Design of module 2	Basic module
■ Module 2	1 handling axis
■ Module 2	two conveyor lanes for primary packaging
■ Module 2	one conveyor lane for secondary packaging
Finish - pneumatic components - lubrication system	
■ Manufacturer of pneumatic maintenance unit	Festo
■ Manufacturer pneumatic system components	Festo (depending on function, partially others necessary)
■ Minimum operating air pressure *	72,52 psi (5 bar)
■ Finish of machine parts, contrasting element, remaining assemblies in	RAL 9018 (papyrus white) und RAL 7037 (dusty grey)
■ Machine finish colour in dry line section	RAL 5013 (cobalt blue)

* Features which do not affect pricing of this quotation item within KRONES standard

2. Container conveyor SYNCO S

Model description

The KRONES container conveyor SYNCO is of high importance as connection between the machines of a filling and packing line. Buffer functions as well as infeed and discharge of containers are basis for a high line efficiency.

2. Container conveyor SYNCO S

Prices

Conveyor
- Control cabinet assembly according to UL508a/CSA
- Container conveyor, drive and control technology included
- Mass conveyor for low-wear chain guide
- Drives and electrical components manufactured to KRONES electrical design standards
- PLC programme and control according to KRONES

Further system components
Conveyor lubrication system to reduce friction and for chain protection
- Blast connection with piping system for wet conveyor belt lubrication system

Customer-related expansions
- Complete sprocket, divided
- Container guide handling parts, 3 lanes for curve

Additional electrical equipment
- Cable design according to UL/CSA standards.
- Main and auxiliary contactors, make: Allen Bradley
- Motor overload switch, make: Allen Bradley
- Manufacturer hardware switching devices, make: Allen Bradley
- Control and indicating devices, make: Allen Bradley 800E
- Manufacturer signal beam, Allen Bradley
- Conductor cross-section of control voltage inside of housings minimum 18 ampere-turns
- Conductor cross-section 2-wire min. 14 ampere-turns inside and outside of housings
- Conductor cross-section 3-wire min. 14 ampere-turns inside and outside of housings
- Core marking according to contact/terminal numbers with BRADY marker
- Wire colours, special design
- Motor isolator for all drive motors in the conveyor area (separate isolation and display for per grouped unit)
- Frequency converter Allen Bradley
- Network connection
- Control cabinet, material: sheet steel, make: Rittal
- Air conditioning for the separate control cabinet, make: according to KRONES, sheet steel
- Mini cooling unit, KRONES design
- Control cabinet with mechanical door locking mechanism

2. Container conveyor SYNCO S

Customer requirement

- special electric:

  - Signal exchange via Ethernet.
  => See position "Signal exchange via Ethernet" and "Network technology".

Notes

chain cleaning performed by the customer guarantees an efficient conveyor operation.

Please note:

Advice for lubrication of the wet conveyors:
Supplier of hardware: Ecolab
Lubricant has to be purchased from Ecolab.

The friction coefficient of the conveyor lubrication system must always be between 0.08 and 0.12.

Please note:
Existing conveyors are not controlled by KRONES.

The technical characteristics of the conveyor depends on the layout situation and is only then definite when no more changes are made in the respective layout plan.

2. Container conveyor SYNCO S

Machine data

Conveyors	
■ Machine assemblies	wet lubrication system
■ Design of shaft bearing	2-hole sheet metal cage
■ Axle or shaft diameter	30 mm or 40 mm, depending on stress
Conveyor category -1-	
■ Design of conveyor body	Sectional frame construction
■ Conveyor support made of stainless steel	with plastic footpad
■ Axle design	fixed axle bearing
■ Disassembly of axes and shafts on bearing	pull shaft axially
Drive Technology	
■ Drive type	Gear motor directly mounted on drive shaft
■ Gear type	gear with bevel spur gear transmission
■ Gear manufacturer	Make: SEW
■ Manufacturer of synchronous motor	make: SSB
■ Motor manufacturer	make: SEW
■ Motor allowance *	approval cURus/CSA (NAD)
Rail category -1-	
■ Design of guide rail	Shackle support with base material 40x8
■ Horizontal rail adjustment	fixed, adjustable at machine infeed
■ Container guidance by	highly-wear-resistant plastic profile
■ Number of lanes	3
Rail category -2-	
■ Design of guide rail	Shackle support with base material 40x8
■ Horizontal rail adjustment	fixed, adjustable at machine infeed
■ Container guidance by	highly-wear-resistant plastic profile
■ Number of lanes	1
Chain category -1-	
■ Conveyor chain type	flush-grid belt
■ Chain material	plastic
■ Manufacturer of conveyor chain	is determined by KRONES
■ Chain thickness	0,34 inch (8,70 mm)
■ Multiple-lane straight guides	One-sided double Positrack
Chain operating conditions, category 1	
■ Lubrication of chain *	wet lubrication
■ Material of chain wear strips	plastic GUR 4150
■ Chain return of mass-flow conveyors *	roller, diameter = 50, green
■ High-speed chain return system *	rubber-coated roller, diameter = 50, green
Finish - pneumatic components - lubrication system	
■ Finish colour for visible three-phase motors and their mounted gears or pumps in the wet line section	RAL 9018 (papyrus white)
■ Finish colour of separate control cabinets of machines in wet line section	RAL 7035 (light grey)
■ Finish colour of machine housings in wet line section	RAL 9018 (papyrus white)
■ Manufacturer pneumatic maintenance unit	Make: Festo Customer compressed air quality according to ISO 8573-

2. Container conveyor SYNCO S

	1 class 7.3.1. (2001-02) Oil-free compressed air supply with a particle size of max. 40µm
■ Manufacturer pneumatic system components	make: Festo
Accessories	
■ Drip pans	at crossings and passages
■ Drip pans design	plastic drain valve
■ Supplier of conveyor lubrication *	is determined by KRONES
■ Disposition of dosing centre for wet lubrication	without dosing centre, only nozzles
■ Mounting position of electrical components	in a separate control cabinet.
■ Control	of frequency converter in bus technology (Ethernet)

* Features which do not affect pricing of this quotation item within KRONES standard

3. Linear rejection unit 083 S

Model description

The linear rejection unit rejects or distributes glass and PET containers on two up to six lanes. It is controlled either via IRIS (Improved Resolution Inspection System) or via DART (Distributed Architecture for Real Time).

System advantages

- Guaranteed rejection of upright containers, also rejection of fallen-over containers is possible.
- Sorting out of faulty containers from the production pool
- Distribution of the container flow to several lanes
- Recording of all relevant production data
- Modem for remote maintenance installed as standard

3. Linear rejection unit 083 S

Prices

Basic machine
- Basic module container Checkmat (touch panel)

Further system components
Linear rejection unit
- Varioglide basic module 2.9 m length / 4 channel

Customer-related expansions
Additional electrical equipment
- Cable design according to UL/CSA standards.

Notes

allocation in 3 lanes

Machine data

Linear rejection unit

Nominal output of the machine	10.080 cph
Container filling condition	full
Number of lanes	4
Design for *	4 channel linear distribution unit with a length of 2,900 mm and a stroke of 155 mm
Pneumatic system *	Make: Festo
Lubrication lines	material: plastic
Finish color for visible three-phase motors and their mounted gears or pumps in the wet line section	RAL 9018 (papyrus white)
Maximum ambient temperature of linear rejection unit	The maximum ambient temperature of the linear rejection unitk is below 36 °C. In case of temperatures exceeding 36 °C a cooling unit has to be installed in order to guarantee a smooth function of the linear rejection unit.
Air conditioning of the linear rejection unit	via fan
Conveyor height *	45,28 inch (1.150 mm)
Rated operating voltage AC, 1 phase *	230 V
Voltage supply *	via the conveyor control
Supply of the power line is effected *	by KRONES

* Features which do not affect pricing of this quotation item within KRONES standard

4. Pack conveyor MULTICO S

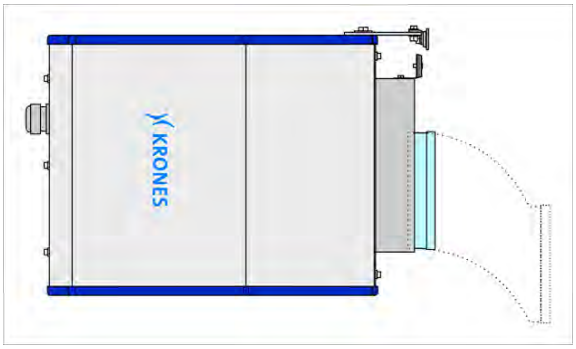
Model description

The KRONES pack conveyor MULTICO conveys and buffers packs of different sizes and designs. Safety regulation of the European CE standard and corresponding DIN standards must be fully complied.

System components

Variopush

- Rejection system driven by servo linear unit
- Parallel rejection with even speed for full, partially filled and empty packs
- Also possible as right-angle discharge



Illustrations are only for non-binding information, the text description has precedence.

4. Pack conveyor MULTICO S

Prices

Conveyor

- Control cabinet assembly according to UL508a/CSA
- Pack conveyor, drive and control technology included
- Roller conveyor for gentle pack conveyance
- Flush-grid belt conveyor with low-wear chain guide
- Rejection system Variopush driven by servo-driven linear unit
- Link conveyor curve
- Drives and electrical components manufactured to KRONES electrical design standards
- PLC programme and control according to KRONES

Customer-related expansions

- Plastic rail for gentle treatment of packs
- Manual lane adjustment for straight conveyors
- Manual lane adjustment for curves
- Return sprockets in rust-proof stainless steel/chrome nickel steel (similar to AISI 304) at flush-grid belt conveyor

Additional electrical equipment

- Cable design according to UL/CSA standards.
- Main and auxiliary contactors, make: Allen Bradley
- Motor overload switch, make: Allen Bradley
- Manufacturer hardware switching devices, make: Allen Bradley
- Control and indicating devices, make: Allen Bradley 800E
- Manufacturer signal beam, Allen Bradley
- Conductor cross-section of control voltage inside of housings minimum 18 ampere-turns
- Conductor cross-section 2-wire min. 14 ampere-turns inside and outside of housings
- Conductor cross-section 3-wire min. 14 ampere-turns inside and outside of housings
- Core marking according to contact/terminal numbers with BRADY marker
- Wire colours, special design
- Motor isolator for all drive motors in the conveyor area (separate isolation and display for per grouped unit)
- Frequency converter Allen Bradley
- Network connection
- Control cabinet, material: sheet steel, make: Rittal
- Air conditioning for the separate control cabinet, make: according to KRONES, sheet steel
- Air conditioning for integrated control cabinet, make acc. to

4. Pack conveyor MULTICO S

KRONES in rust-proof stainless steel/chromium nickel steel (similar to AISI 304)

- Mini cooling unit, KRONES design
- Control cabinet with mechanical door locking mechanism

Customer requirement

- special electric:

  - Signal exchange via Ethernet.
  => See position "Signal exchange via Ethernet" and "Network technology".

Notes

Option:
sensor for After 5 consecutive faults, the machine will stop

The technical characteristics of the conveyor depends on the layout situation and is only then definite when no more changes are made in the respective layout plan.

4. Pack conveyor MULTICO S

Machine data

Conveyor category -1-	
■ Design of conveyor body	sectional frame construction
■ Conveyor supports made of stainless steel	with plastic footpad
■ Cleaning of conveyor body	without cleaning
■ Design of roller conveyor	with support rollers in stainless steel
Drive Technology	
■ Drive type	gear motor directly mounted on drive shaft
■ Gear type	gear with bevel gear transmission
■ Gear manufacturer	SEW
■ Motor manufacturer	make: SEW
Pack guide	
■ Base material of pack guide	C-profile
Rail category -1-	
■ Number of lanes	1 lane
■ Rail adjustment	manually adjustable
■ Pack guides	plastic profile
Chain category -1-	
■ Conveyor chain type	plastic flush-grid belt
■ Chain designation	flat top
■ Conveyor chain manufacturer	is determined by KRONES
■ Width class	3,35 inch (85,00 mm)
■ Chain thickness	0,34 inch (8,70 mm)
■ Thickness of rubberised chain	0,42 inch (10,70 mm)
■ Surface mass-flow conveyor	closed surface
■ Surface, not suitable for back-up	rubberised 100 %
Chain category -2-	
■ Conveyor chain type	plastic flush-grid belt
■ Chain designation	heavy-duty chain
■ Conveyor chain manufacturer	is determined by KRONES
■ Width class	3,35 inch (85,00 mm)
■ Chain thickness	0,50 inch (12,70 mm)
■ Thickness of rubberised chain	0,60 inch (15,20 mm)
■ Thickness of roller chain	1,07 inch (27,20 mm)
■ Surface, mass-flow conveyor	closed surface
■ Surface, not suitable for back-up	rubberised 100 %
■ Surface, can highly be accumulated	reels for stream conveyor chain
Finish - pneumatic components - lubrication system	
■ Finish colour for three-phase motors in the dry line section	RAL 9018 (papyrus white)
■ Finish colour of separate protective devices in dry line section	RAL 9018 (papyrus white)
■ Machine finish colour in dry line section	RAL 5013 (cobalt blue)
■ Machine guards design	according to KRONES
■ Finish colour of stand-alone control cabinets of machines in dry line section	RAL 7035 (light grey)
■ Finish colour of machine housings in dry line section	RAL 9018 (papyrus white)

4. Pack conveyor MULTICO S

■ Manufacturer pneumatic maintenance unit *	Make: Festo Customer compressed air quality according to ISO 8573-1 class 7.3.1. (2001-02) Oil-free compressed air supply with a particle size of max. 40µm
■ Manufacturer pneumatic system components	make: Festo
Accessories	
■ Drip pans	at the area of crossings and passageways
■ Drip pans design	with plastic drain valves
■ Drain pipe for drip pans	not included
■ Mounting position of the electrical components	in a separate control cabinet.
■ Control	of frequency converters in bus technology (Ethernet)

* Features which do not affect pricing of this quotation item within KRONES standard

5. Spare parts kit

Machine data

Spare parts kit

- KRONES has created an individual emergency spare parts kit to increase plant availability based on KRONES experience.

6. IT-S (SET head)

Model description

SitePilot is a shared brand name that covers all of Krones' IT products. It includes a modular software system for all tasks, from production to logistics. The system enables processes to be planned, visualised, documented and controlled. The modular system allows also to include existing IT and lines and thus provides, together with the machines and lines supplied by KRONES, IT competence from a single source. Millions of bottles and cans are processed on KRONES lines every day - with the help of KRONES IT solutions. The expertise and experience from thousands of installations all over the world are an integral part of all IT products. They combine comprehensive business know-how and competent knowledge of our processes.

System advantages

- SitePilot supplies precise, reproducible data out of the production process
- SitePilot provides an integrated information flow
- SitePilot supplies the right information at the right time to the right persons
- SitePilot compacts complex interrelations to structurised information (codes)
- SitePilot plans, records and checks reliably the product quality
- SitePilot knows and monitors the operating hours of your machines
- SitePilot guarantees the efficient interlocking of different operative company levels

Illustrations are only for non-binding information, the text description has precedence.

7. Network / hardware technology

System components

Technical highlights
- Networking of all machines to a centralised point

Technical highlights
- KRONES is Microsoft Gold Certified Partner and can offer software solutions which are distinguished by high quality, current technological standard and low price conditions. These solutions can be integrated seamless in existing MS Office environments.

7. Network / hardware technology

Prices

- Engineering

Machine data

Machine design

■ Connected machine positions	(1 X) CONTAINER CONVEYOR (1 X) PACK CONVEYOR (1 X) PACKAGING LINE
■ Further machine positions	OEM MACHINES
■ Network package	network by customer

Hardware

■ Incidentals	not included

Engineering

■ Network engineering	included

System components

- No cable material, laying of cables and trays
- No connection of line network to customer network
- Antivirus solutions by customer after consultation of KRONES IT-S
- No updates and patches after acceptance test by KRONES
- No performance of maintenance (current administration activity)
- No VPN software client solutions for remote maintenance

8. Signal transmission via Ethernet

Prices

- Engineering

Machine data

Machine design

■ Connected machine positions	(1 X) CONTAINER CONVEYOR (1 X) PACK CONVEYOR (1 X) PACKAGING LINE
■ Further machine positions	OEM MACHINES

Engineering

■ Basic Engineering	included
■ Selection signal transmission (PLC)	- Engineering Allen Bradley - Engineering third-party machines
■ Engineering Allen Bradley, number of machines	3 PCE
■ Engineering third-party machines, number of machines	2 PCE

9. Material of electrical supply system

Model description

The used machines require an optimum energy supply in the complex production process of line and process technology. A well planned and performed electrical installation ensures an optimal line operation. It can fulfil the line requirements which are growing and changing continuously and provides safety and efficiency. A well though-out concept for the electrical installation, especially designed by a specialist to match the respective requirements, is a good condition for a well-working line and process technology.

9. Material of electrical supply system

Prices

General
- Planning and project planning

Cable trays
- Cable trays material
- Cable trays fastening - material

Vertical cable trays
- Vertical cable trays material

Cable ducts
- Cable ducts material

Connection lines
- Connection lines material

9. Material of electrical supply system

General - Assembly	
■ The electrical installation material is supplied by	KRONES
■ Project planning is made by	KRONES
■ Electrical installation plan	included
■ The electrical installation plan includes:	- the way of cable trays - the vertical cable trays - the cable duct at the conveyor - the control cabinets, area planned - the power demand data list for electrical installation
■ Material allowance, electrical installation	necessary
■ Installation documents, electrical installation	necessary
Main feeder	
■ The main power lines are supplied by	the customer
Design of feed pipes	
■ Design of electrical feeders	Power cables according to UL/CSA and NEC (NFPA 70), conductor material copper
Power lines subdistribution to control cabinet	
■ The feeders from the energy distributor to the feeding points of the machines are supplied by	the customer
Cable trays	
■ The cable trays are supplied by	KRONES
■ Cable tray type	wide-span cable tray without cover
■ The design of the cable trays	is performed with partition
■ The material of the cable trays is	sendzimir galvanised EN 10142
■ Cable tray height is	16,40 feet (5,00 m)
Cable tray fastening	
■ The fastenings for the cable trays are supplied by	KRONES
■ Fastening type ceiling for cable trays	galvanized
■ The fastening type wall for cable trays	is galvanised
Vertical cable trays	
■ The vertical cable trays are supplied by	KRONES
■ The type of vertical cable tray is	closed duct
■ The design of the vertical cable trays	is with partition
■ The vertical cable tray material is	rust-proof stainless steel / chromium nickel steel (similar to AISI 304)
Cable ducts	
■ The supply of the cable ducts is performed by	KRONES
■ The cable duct is made of	rustproof stainless steel / chrome nickel steel (simlar to AISI 304)
■ The cable duct at the container conveyor is necessary	yes
■ Design of cable routing at the container conveyor	closed cable duct
■ Connection type of cable duct	is welded
■ The design of cable duct at the container conveyor	is with partition
■ Cable glands design	is the cable guide.
■ The cable conduits at the container conveyors are designed as	round pipe 28 * 1, rustproof stainless steel /c hrome nickel steel (similar to AISI 304)

9. Material of electrical supply system

■ The cable duct at the pack conveyor is necessary	yes
■ Design of cable routing at the pack conveyor	closed cable duct
■ Connection type of cable duct	is welded
■ The design of the cable duct at the pack conveyor	is with partition
■ Cable glands	is a cable conduit
■ The cable conduits at the pack conveyors are designed as	round pipe 28 * 1, rustproof stainless steel /c hrome nickel steel (similar to AISI 304)
■ The cable duct at the pallet conveyor is necessary	no
■ The cable duct at the air conveyor is necessary	no

Control cabinets

■ The energy distributor is supplied by	the customer

Connection lines

■ Design of electrical connection lines which are guided outside the machines via cable trays	Sheathed cable according to UL / CSA requirements, suitable for laying in cable trays (TC-ER), construction type MTW.
■ The connection lines between the separate control cabinets and the electrical equipment of the machines are supplied by	KRONES
■ The supply of the network cable between the machines of the KRONES scope of supply is performed by	the customer

False floor

■ False floor necessary	not necessary

Disassembly

■ Disassembly of the material of electrical installation	customer

Re-assembly

■ Reassembly of electrical installation material	customer

Notes
See SAP Attachment for Electrical SOS
---

10. On-site assembly

Disassembly	
■ Supply of the material for disassembly	customer
Re-assembly	
■ Supply of the material for reassembly	customer
Accessories	
■ Set of tools:	Following auxiliary material is provided by the customer: forklift with sufficient lifting force set of solid rollers lifting unit with oil-pressure long crane harness fork-lift truck hardwoods for underlaying
General - Assembly	
■ Supply of material for pipe system media	customer
■ Scope of supply insulating material	customer
■ Supply of shut-off valve transfer point	customer
■ Scope of supply pipe material for media	no connections indicated
General - Assembly	
■ Assembly of pipe material	customer
■ Assembly insulating material	customer
■ Performance of pressure test, endoscopy, documentation	customer

Notes

■ For the pipe system of KRONES scope of supply the KRONES guidelines for pipe systems have to be observed.
They are based on valid standards and apply essentially to:
Welding process WIG manual (H) or alternatively WIG orbital welding (O) is made by examined welders with test certificate according to DIN EN 287-1. The site manager on site may ask for welding samples if necessary.
Welding gas: Argon purity 99,996 (protective gases according to DIN EN 439).
Weld seam preparation: The pipes, fittings and special-shaped pieces are examined for their perfect condition before and after welding. Weld seam preparation according to DIN EN 29692.
Weld seam post-treatment: To reduce the corrosion risk the temper colours are removed. The weld seam fronts are cleaned by stainless steel or plastic brushes and pickled with pickling paste.
Oxidation and heating according to DIN 50930 part 4 (exterior pickling and brushing or polishing, in the pipe interior discolouration max. straw-coloured).
For each material the approved welding additives according to DIN EN 12022 have to be applied.
Tacking of weld seams: The connection parts must be tacked manually among forming gas without additives.
Please consider fit, minimum width of gap, parallel edges and axial orientation.
When using closed welding guns the tacking is not necessary.
Welding supervision acc. to EN 719
Welding seam design according to DIN EN 5817 / assessment group B.
Tacking and welding only after reaching the pre-rinsing time, form as long as the temperature in the weld seam area drops below 250° C.

11. Mechanical installation with lump sum

Prices

General - installation
- Personnel costs supervisor
- Personnel costs, site manager und fixed costs, further personnel

Initial start-up including production programme 1
- Personnel costs

Acceptance of production programme 1
- Personnel costs

11. Mechanical installation with lump sum

General - Assembly	
■ Mechanical installation	KRONES supervision
■ Invoicing of the mechanical installation according to	flat rate
■ Commissioning/acceptance	KRONES
■ Invoicing of commissioning/acceptance	flat rate
■ Integration of new scope of supply into an existing line	not necessary
■ Flight	included
■ Flight organisation	KRONES
■ Flight costs	included
■ Organisation of the transfer from the airport to the hotel	KRONES
■ Transfer costs from the airport to the hotel	included
■ Organisation of transfer from hotel to the site	KRONES
■ Transfer costs from the hotel to the site	included
■ Organisation of hotel/accommodation	KRONES
■ Costs for hotel / accommodation	included
■ Calculation of allowance according to	KRONES flat rate, according to travel policy
■ Provision of toilets and washing rooms	customer
■ Provision of lockable, equipped office(s)	customer
■ Provision of lockable storage room	customer
■ Parking area at the customer to be sued by KRONES	existing
■ Workshops at the customer to be used by KRONES	existing
■ Provision of work platform for assembly	customer
■ Visa	necessary
■ Letter of invitation from the customer	not necessary
■ Work permit	not necessary
■ Special codes of behaviour at the customer to consider	not existing
■ Local safety instructions according to	standard "Germany"
■ Special safety regulations at the customer	not existing
■ KRONES specialist for operational safety	not necessary
■ Medical examination(s)	not necessary
■ Construction site security	not necessary
■ Interpreter	not necessary
■ Waste removal	customer
■ Return transport of the tools	customer
■ Description of opening for installation	Opening on one level as the unloading
■ Mechanical installation of customer machine	not necessary
Unloading	
■ Unloading of machines	customer
■ Provision of auxiliaries for unloading	customer
■ Description of unloading area:	place of delivery is in front of opening for installation (distance < 100 m)
Bringing-in and transport to machine position	
■ Unpacking and transport of the machines to the opening for installation	customer
■ The bringing-in route is	continuously accessible
■ The floor protection is	not necessary
■ The auxiliaries for the bringing-in are provided	by the customer
■ Transverse transport of the machines from the open-	customer

11. Mechanical installation with lump sum

ing for installation to the position	
■ The transport route is	continuously loadable
■ The transport way is continuously accessible on one level	see description
■ The auxiliaries for the transverse transport of the machines are provided	by the customer
Assembly	
■ Positioning and orientation of the machines	customer
■ The auxiliaries for the transverse transport of the machines are provided	by the customer
Disassembly	
■ Disassembly of mechanical installation	customer
Re-assembly	
■ Reassembly of the mechanical installation	customer
Commissioning	
■ Name of the commissioning of the production programme 1	GPP - 1. 5 QT HDPE BOTTLE - MO
■ Status of commissioning of production programme 1	reference
■ Performance of commissioning of production programme 1	KRONES
■ Invoicing of commissioning of production programme 1	lump sum
Acceptance test	
■ Name of the acceptance of the production programme 1	GPP - 1. 5 QT HDPE BOTTLE - MO
■ Status of acceptance of production programme 1	reference
■ Performance of acceptance of production programme 1	KRONES
■ Invoicing of acceptance of production programme 1	lump sum
■ Duration and output, acceptance of production programme 1	Acceptance production programme, degree of efficiency DIN8782, 1 day/8 hours net production time
■ Date of acceptance test	is performed directly after commissioning

Notes
Calculation of assembly costs based on
layout PL094556B0000000_02
and sales-configuration in SDCC and on site assembly Set-Header.
Possible necessary de- and reassembly of existing line components were not considered and have to be done by customer.The calculation considers costs for installation as assembly with supervisor.

In the case of assembly with supervisor:
Customer has to supply 3 skilled personnel with tools, crane and lifting equipment for installation.
Commissioning of 1 production program(s)
and acceptance of 1 production program(s) according to DIN8782, 1 day with 8 hours.

Commissioning and acceptance of additional production programs have to be charged separately!

Customer specifications were not considered.

11. Mechanical installation with lump sum

- For the mechanical installation of the KRONES scope of supply the KRONES guidelines have to be observed. They can be requested for the respective machines at the KRONES sales dept. or service dept. - if they have not been supplied automatically.

12. Electrical installation with flat rate

Prices

General
- Site manager
- Additional costs

Cable trays
- Cable trays installation
- Cable trays fastening - installation

Vertical cable trays
- Vertical cable trays installation

Cable ducts
- Cable ducts installation

Connection lines
- Laying of connection lines
- Connect connection lines

Control cabinet installation
- Control cabinet installation

12. Electrical installation with flat rate

General - Assembly

■ The installation of the identification of the electrical components is performed by	KRONES
■ The installation for the identification of the electrical components is invoiced according to	a lump sum

Main feeder

■ Laying of main power lines is performed by	the customer
■ The main power lines are connected by	the customer

Power lines subdistribution to control cabinet

■ The laying of the feeders from the energy distributor to the feeding points of the machines is performed by	the customer
■ Connection of the feeders from the energy distributor to the feeding point of the machines is performed by	the customer

Cable trays

■ Installation cable trays	KRONES
■ The instalaltion of cable trays is invoiced according to	a lump sum

Cable tray fastening

■ The installation of the fastenings for the cable trays is performed by	KRONES
■ The installation for the fastening of cable trays is invoiced according to	a lump sum

Vertical cable trays

■ The installation of the vertical cable trays is performed by	KRONES
■ The vertical cable tray installation is invoiced according to	a lump sum

Cable ducts

■ The installation of the cable ducts is performed by	KRONES
■ The installation of the cable ducts is invoiced according to	a lump sum

Control cabinets

■ The installation of the control cabinets is performed by	KRONES
■ The installation of control cabinets is invoiced according to	a lump sum
■ The installation of the energy distributor is performed by	the customer

Connection lines

■ The laying of connection lines between separate control cabinets and the electrical components of the machines is performed by	KRONES
■ The laying of the connection lines between the separate control cabinets and the electrical components of the machine is invoiced according to	a lump sum
■ Connection of the connection lines between the separate control cabinets and the electrical components of	KRONES

12. Electrical installation with flat rate

the machines is performed by	
■ The connection of the connection lines between the separate control cabinets and the electrical components of the machines is invoiced according to	a lump sum
■ The laying of the network cables between the machines which are included in the KRONES scope of supply is performed by	the customer
■ The connection of the network cables between the machines which are included in the KRONES scope of supply is performed by	the customer

Disassembly

■ Disassembly of the electrical installation	customer

Re-assembly

■ Reassembly of electrical installation	customer

Notes
See SAP Attachment for Electrical SOS
---

13. Training

Prices

■ Training for machine electrical components (long form) electricians	is not necessary

scope of basic training

- BASIC TRAINING ON SITE:
  The training is performed by our trainer(s).
- TRAVEL AND STAY TRAINER:
  Outward and return flight for our trainer(s)
- Travel time for our trainer(s)
- Daily transfer for our trainer(s)
- Hotel costs for our trainer(s)
- Any waiting times (at the weekend) for our trainers
- Any visa costs for our trainer(s)

13. Training

Basic training

-- COURSE DATA --- *	-- COURSE DATA ----
Basic training	on site in your plant.
TOTAL NUMBER of trainees *	maximum 8 persons
SCHEDULE DATES:	have to be coordinated with KRONES academy in good time (include into total planning of training dates).
Amount of CANCELLATION COSTS: *	are attended as soon as schedule dates have been appointed with us.
Course language: *	The course is held in English.
Translator:	not yet determined
Training documentation *	in English
Seminar success *	To ensure optimum success of a seminar, we recommend that the machines should be available for practical training during 50% of the seminar duration.
--MACHINES --- *	--MACHINES ---
Training for basic standard electrical components, throughout the machines	not necessary
Training for machine electrical components (long form) electricians	is not necessary
Machines division packing and palletising technology	R67 MULTICO S R40 VARIOLINE 2M
Training of packing and palletising technology *	- operators on site - mechanicians and electricians on site
-- ASSIGNMENT OF TRAINERS --- *	-- ASSIGNMENT OF TRAINERS ---
Necessary training days	9,0 days
Training of third-party machines: *	training of machine and components of third-party suppliers is not planned - (the respective instruction is part of third-party suppliers scope of supply. An overview of these machines is shown in our prices summary of third-party machines.)
-- TRAVEL DATA OF TRAINERS --- *	-- TRAVEL DATA OF TRAINERS ---
Journey of trainer by:	airplane
Transfer between accomodation and training place	is necessary
-- STAY OF TRAINERS ---- *	-- STAY OF TRAINERS ----
Trainer accomodation	in a hotel
Number of weekends without training (waiting time)	1
Visa for the trainers	is necessary
-- TARGET GROUPS --- *	-- TARGET GROUPS ---

Advanced training

-- COURSE DATA --- *	-- COURSE DATA ---
Advanced training *	Up to now, we have not received any respective request. We would be pleased to submit you a separate quotation if required.

* Features which do not affect pricing of this quotation item within KRONES standard

14. Technical documentation

User documentation set 1

Delivery date:	with machine delivery
Output medium:	paper KRONES file
Quantity	1
Shipment:	to consignee
Supply	separately per machine
Operation documentation	----------
Language	English
Edition:	final documentation
Format:	A4 KRONES file

User documentation Set 2

Delivery date:	for line commissioning
Output medium:	CD in eCat format
Quantity	1
Shipment:	to consignee
Supply	per order
Operation documentation	----------
Language	English
Edition:	final documentation
Format:	KRONES eCat
Spare parts documentation	----------
Language	English
Edition:	as-delivered documentation
Format	KRONES eCat

User documentation Set 3

Delivery date:	12 weeks after final line accpetance
Output medium:	CD in eCat format
Quantity	1
Shipment:	to consignee
Supply	per order
Operation documentation	----------
Language	English
Edition:	final documentation
Format:	KRONES eCat
Spare parts documentation	----------
Language	English
Edition:	final documentation
Format	KRONES eCat
Electrical documentation	----------
Language	English
Edition:	final documentation
Format:	KRONES eCat

15. Packing

Prices

■ Type of packing	All machines and/or equipment are packed seaworthy (cases and/or containers).

Packaging

16. Freight

Prices

■ Incoterms	Delivered at Place, delivered defined location
■ Named place	PAULSBORO, NJ
■ Pre-carriage	by truck
■ Type of main carriage	by sea freight
■ Onward carriage	by truck
■ Transport insurance	The usual transport insurance (according to Incoterm) exists until the place of delivery determined by the orderer.

Pre-transport
Main transport
Post-transport
Transport insurance

Performance data

Machine	Equipment	R/O	A/M	Line output	Factor	Machine output	Customer objects
1. Packaging line VARIOLINE 2M	01.01	R	A	5.400	1,15	6.210	1) 5 qt HDPE bottle - Xxxxx1 (N1048-8A1) 1) screw cap, plastic (flat cap) 1) 5 qt Xxxxx 1 1x3 case
	01.02		M	8.400	1,00	8.400	1) 5 qt HDPE bottle - Xxxxx 1 (N1048-8A1) 1) screw cap, plastic (flat cap) 3) 5 qt Xxxxx 1 2x2 case
	02.01		M	5.400	1,15	6.210	2) 5 qt HDPE bottle Conventional (N1049-A-1) 1) screw cap, plastic (flat cap) 2) 5 qt bottle conventional 1x3 case
	02.02		M	8.400	1,00	8.400	2) 5 qt HDPE bottle Conventional (N1049-A-1) 1) screw cap, plastic (flat cap) 4) 5 qt bottle conventional 2x2 case
	03.01		M	5.400	1,15	6.210	3) 1 gallon HDPE bottle (E-38682-1) 1) screw cap, plastic (flat cap) 5) 1 gallon 3x1 case
	03.02		M	8.400	1,00	8.400	3) 1 gallon HDPE bottle (E-38682-1) 1) screw cap, plastic (flat cap) 6) 1 gallon 2x2 case
3. Linear rejection unit 083 S	01.01		M	5.400	1,20	6.480	1) 5 qt HDPE bottle - Xxxxx1 (N1048-8A1) 1) Screw finish
	02.01		M	8.400	1,20	10.080	1) Screw finish 2) 5 qt HDPE bottle Conventional (N1049-A-1)
4. Pack conveyor MULTICO S	01.01	R	A	5.400	1,00	5.400	1) 5 qt HDPE bottle - Xxxxx1 (N1048-8A1) 1) screw cap, plastic (flat cap) 1) 5 qt Xxxxx1 1x3 case
	01.02		M	8.400	1,00	8.400	1) 5 qt HDPE bottle - Xxxxx1 (N1048-8A1) 1) screw cap, plastic (flat cap) 3) 5 qt Xxxxx1 2x2 case
	02.01		M	5.400	1,00	5.400	2) 5 qt HDPE bottle Conventional (N1049-A-1) 1) screw cap, plastic (flat cap) 2) 5 qt bottle conventional 1x3 case
	02.02		M	8.400	1,00	8.400	2) 5 qt HDPE bottle Conventional (N1049-A-1) 1) screw cap, plastic (flat cap) 4) 5 qt bottle conventional 2x2 case
	03.01		M	5.250	1,00	5.250	3) 1 gallon HDPE bottle (E-38682-1) 1) screw cap, plastic (flat cap) 5) 1 gallon 3x1 case
	03.02		M	4.200	1,00	4.200	3) 1 gallon HDPE bottle (E-38682-1) 1) screw cap, plastic (flat cap) 6) 1 gallon 2x2 case

R/O = Reference and/or optional equipment, A/M = Line output and/or required output

Customer object list

Container	1 reference	2	3
Container type	Bottle	Bottle	Bottle
Container description	5 qt HDPE bottle - Xxxx 1 (N1048-8A1)	5 qt HDPE bottle Con-ventional (N1049-A-1)	1 gallon HDPE bottle (E-38682-1)
Container drawing no.	8F00ZZ5977	8F00ZZ5979	8F00ZZ6002
Material number	0903492318	0903492342	0903613749
Material	Plastic HDPE	Plastic HDPE	Plastic HDPE
Use	Non-returnable	Non-returnable	Non-returnable
Nominal volume	4,732 l	4,732 l	3,785 l
Circumcircle diameter (mm)	9,25 inch (235,01 mm)	8,49 inch (215,70 mm)	8,51 inch (216,19 mm)
Container width	4,40 inch (111,76 mm)	4,40 inch (111,76 mm)	4,40 inch (111,76 mm)
Container length	8,10 inch (205,74 mm)	8,10 inch (205,74 mm)	8,10 inch (205,74 mm)
Total height	12,66 inch (321,56 mm)	12,66 inch (321,56 mm)	10,94 inch (277,88 mm)
Body shape	parallel	parallel	special shape
Body cross section	oval	oval	oval
Base shape	Sparkling wine/champagne base	Sparkling wine/champagne base	Sparkling wine/champagne base
Container orientation	handle	handle	handle
Volume/weight unit	Liter (l)	Liter (l)	Liter (l)
Neck finish drawing no.	0902155761	0902155761	0903636963
Tilting angle filled	19 deg	18 deg	17 deg
Tilting angle empty	18 deg	17 deg	16 deg

Cap	1 reference
Cap designation	unknown
Material number	0903492340

Pack	1 reference	2	3	4
Pack type	Carton	Carton	Carton	Carton
Pack description	5 qt Xxxxx 1 1x3 case	5 qt bottle con-ventional 1x3 case	5 qt Xxxxx 1 2x2 case	5 qt bottle con-ventional 2x2 case
Pack content	loose containers	loose containers	loose containers	loose containers
Formation	3x1	3x1	2x2	2x2
Number of layers per pack	1 PCE	1 PCE	1 PCE	1 PCE
Pack length	13,87 inch (352,4 mm)	16,50 inch (419,1 mm)	17,13 inch (435,0 mm)	13,43 inch (341,0 mm)
Pack width	8,25 inch (209,6 mm)	9,37 inch (238,1 mm)	10,04 inch (255,0 mm)	8,31 inch (211,0 mm)

The information with a frame are supposed data.

Customer object list

Total height, pack	12,81 inch (325,4 mm)	12,81 inch (325,4 mm)	13,98 inch (355,0 mm)	13,11 inch (333,1 mm)
Material number	0903617289	0903617291	0903617283	0903656070

Pack	5	6
Pack type	Carton	Carton
Pack description	1 gallon 3x1 case	1 gallon 2x2 case
Pack content	loose containers	loose containers
Formation	3x1	2x2
Number of layers per pack	1 PCE	1 PCE
Pack length	14,19 inch (360,4 mm)	16,42 inch (417,0 mm)
Pack width	8,56 inch (217,5 mm)	9,02 inch (229,0 mm)
Total height, pack	11,75 inch (298,5 mm)	11,39 inch (289,4 mm)
Material number	0903629391	0903617285

The information with a frame are supposed data.

Container/Decoration overview

Dry section decoration	01.01 reference	01.02	02.01	02.02
Container	**1**	**1**	**2**	**2**
Container description	5 qt HDPE bottle - Xxxxx 1 (N1048-8A1)	5 qt HDPE bottle - Xxxxx 1 (N1048-8A1)	5 qt HDPE bottle Conventional (N1049-A-1)	5 qt HDPE bottle Conventional (N1049-A-1)
Material	Plastic HDPE	Plastic HDPE	Plastic HDPE	Plastic HDPE
Nominal volume	4,732 l	4,732 l	4,732 l	4,732 l
Total height	12,66 inch (321,56 mm)	12,66 inch (321,56 mm)	12,66 inch (321,56 mm)	12,66 inch (321,56 mm)
Cap	**1**	**1**	**1**	**1**
Cap designation	unknown	unknown	unknown	unknown
Pack	**1**	**3**	**2**	**4**
Pack type	Carton	Carton	Carton	Carton
Pack description	5 qt Xxxxx1 1x3 case	5 qt Xxxxx 1 2x2 case	5 qt bottle con-ventional 1x3 case	5 qt bottle con-ventional 2x2 case
Formation	3x1	2x2	3x1	2x2
Pack length	13,87 inch (352,4 mm)	17,13 inch (435,0 mm)	16,50 inch (419,1 mm)	13,43 inch (341,0 mm)
Pack width	8,25 inch (209,6 mm)	10,04 inch (255,0 mm)	9,37 inch (238,1 mm)	8,31 inch (211,0 mm)
Total height, pack	12,81 inch (325,4 mm)	13,98 inch (355,0 mm)	12,81 inch (325,4 mm)	13,11 inch (333,1 mm)
Packaging line VARIOLINE 2M				
Packs per hour	2.070	2.100	2.070	2.100
Pack direction at infeed	shortside lea-ding	shortside lea-ding	shortside lea-ding	shortside lea-ding
Pack conveyor MULTICO S				
Pallets per hour	0	0	0	0
Packs per layer	0	0	0	0
Packs per hour	2.160	2.520	2.160	2.520
Pack direction at infeed	longside leading	longside leading	longside leading	longside leading

Dry section decoration	03.01	03.02
Container	**3**	**3**
Container description	1 gallon HDPE bottle (E-38682-1)	1 gallon HDPE bottle (E-38682-1)
Material	Plastic HDPE	Plastic HDPE
Nominal volume	3,785 l	3,785 l
Total height	10,94 inch (277,88 mm)	10,94 inch (277,88 mm)
Cap	**1**	**1**
Cap designation	unknown	unknown
Pack	**5**	**6**
Pack type	Carton	Carton
Pack description	1 gallon 3x1	1 gallon 2x2 case
Formation	3x1	2x2
Pack length	14,19 inch (360,4 mm)	16,42 inch (417,0 mm)
Pack width	8,56 inch (217,5 mm)	9,02 inch (229,0 mm)
Total height, pack	11,75 inch (298,5 mm)	11,39 inch (289,4 mm)
Packaging line VARIOLINE 2M		
Packs per hour		

Container/Decoration overview

Pack direction at infeed	shortside leading	shortside leading
Pack conveyor MULTICO S		
Pallets per hour	0	0
Packs per layer	0	0
Packs per hour	1.750	1.050
Pack direction at infeed	longside leading	longside leading

Container	**01.01**	**02.01**
Container	**1**	**2**
Container description	5 qt HDPE bottle - Xxxxx1 (N1048-8A1)	5 qt HDPE bottle Conventional (N1049-A-1)
Material	Plastic HDPE	Plastic HDPE
Nominal volume	4,732 l	4,732 l
Total height	12,66 inch (321,56 mm)	12,66 inch (321,56 mm)

Line characteristics

General conditions

■ Geographic installation height above M.S.L.	16,40 feet (5 m)
■ Minimum ambient temperature at machine installation area - wet part	68,00 deg F (20 °C)
■ Maximum ambient temperature at machine installation area - wet part	96,80 deg F (36 °C)
■ Minimum ambient temperature at machine installation area - dry part	46,40 deg F (8 °C)
■ Maximum ambient temperature at machine installation area - dry part	96,80 deg F (36 °C)
■ Minimum relative humidity -wet part	50 %
■ Maximum relative humidity - wet part	75 %
■ Minimum relative humidity - dry part	40 %
■ Maximum relative humidity - dry part	60 %
■ Air quality operating air	Customer compressed-air quality of the operating air for pneumatic control of the machine is required according to ISO 8573-1, class 7.3.1. Air pressure of 6 - 7 bar (87 - 100 PSI). Oil-free compressed air supply (max. 0.01 mg/m³) Particle size of max. 40 micrometer (40 microns) Particle density of 10 mg/m³ (6.24e-007 lbs/ft³) Dew point temperature - 20°C (- 4°F) Alternatively, dew point temperature of 3°C (37°F) according to class 7.4.1 ISO 8573-1 if operation of all pressurised components at a min. temperature of 8° C (46° F) is guaranteed.
■ Drive selection	Standard drives are applied.

■ Note concerning the noise emission value warranty:
Noise which is harmful to operators (immission value) is not attributable solely to the noise emitted by individual machines (emission value), but also - and to a significant extent - to the size and nature of the building, the production line layout and peripheral equipment (conveyors). Furthermore, the handling of packaging materials (bottles, cans, crates, etc.) also contributes to the generated noise level. This contribution is taken into account in the quoted machine noise emission value.

If the conditions for noise reduction technology are not sufficiently fulfilled by the customer or plant proprietors, or if third-party sound sources become influential, an increased immission level can result. In such cases, additional secondary noise reduction measures may become necessary - and such measures can be offered by us.

In view of the above, it is clear that the machine manufacturer, KRONES, and the proprietor must work together in order to minimise noise levels generated and address any noise level problems:

- KRONES regarding their technical products, and
- the proprietor with respect to the size and nature of the building
(The suitable machine layout is significantly influenced by the size of the room in which it is positioned)

The sound absorption coefficient, sound propagation per doubled distance and reverberation time are all crucial factors in designing low-noise rooms.

Experience has shown that a minimum sound absorption coefficient must be 0.35. The noise level propagation per doubled distance should be approx.5 dB (A). Depending on the hall area, the reverberation time should be ideally between 0.6 and 0.8 sec. However, for hall sizes smaller than 300m², reduced reverberation times (less than 0.6 sec.) are necessary. In most cases, this can only be achieved when additional noise abatement measures are introduced.

These features are also an important prerequisite for the efficiency of the additional noise reducing measures

Line characteristics

such as screens, noise protection panels, etc.. It should be noted that the acoustic ceiling should be positioned with a headway of 4m and the sound absorption coefficient should amount to a frequency of 500 - 4000 Hz >0.8.

KRONES shall not be held liable for the emission values of third-party machines and third-party auxiliary devices!

Configuration factor

■ Planned number of operators	see layout
■ Line control	Conventional: The conveyor speed is set according to the speed of the machines picking up the containers. The machines are controlled via limit switches at infeed and discharge (isolated control).
■ Line installation site	according to hall layout
■ Hall plan number	N.A.
■ Gradient diagram	N.A.

Electrical documentation

■ Electrical connection diagram structure	according to JIC for North American Design

Marking and dialog displays:

■ Language of PLC software	English
■ Language of machine inscription	English
■ Design of machine label	with pictograms according to KRONES company standard
■ Language monitor / touch-screen	English

Additional influencing variables

■ Potentially explosive material	no

Electrical line components

Electrical line components

- The electrical equipment of KRONES machines and line parts is designed, manufactured and finally inspected according to NFPA 79 and UL508A. KRONES has the certification according to UL 508A for the manufacturing of control cabinets and has the UL identification number (file umber) E226540. The inspection results are documented and supplied with the electrical equipment. For all control cabinets manufactured at KRONES for supply to the United States and Canada KRONES confirms by the UL-LISTED Label (Enclosed Industrial Control Panel) that all relevant requirements of UL508A and NFPA79 are observed.
  Operation of the electrical equipment:
  KRONES indicates and supposes that the supplied electrical equipment is operated within the limits of the maximum allowed net parameters of NFPA79, item 4.3. Additionally the requirements in IEC 61000-2-4 (environment class 2) must be obtained.
  Material :
  For the KRONES NAD standard equipment variant well-proved and high-quality branded products with the necessary UL approvals and applications (CCN code) are applied for the electrical equipment.
- Note on safety technology:
  Safety parts of controls are designed especially according to the standard specifications EN ISO 13849 and EN 62061. For risk analysis the contents of standard EN ISO 14121 are applied,
  The technology of KRONES machines and lines is designed up to a maximum performance level "d" (according to EN ISO 13849) and up to SIL 2 (according to EN 62061).
  The individual performance level and/or SIL for the respective safety function at the machine is determined individually by a risk analysis and accordingly planned.

Reservation

- All specifications for electronic components and equipment are valid for the entire quotation and/or the order. Deviations for technical reasons are possible. All deviations from the specifications are explicitly stated for each quoted item and are regarded as mandatory in their changed version. Items described "according to KRONES design" are electronic components or equipment which cannot be determined until the execution of the contract. In those cases, KRONES reserves the right to change the make / manufacturer or equipment types of the used electrical components without extraordinary information for the customer.

Electrical connection data

Network in customers net	Solidly Grounded Wye Network (L1, L2, L3, GND). Network type similar to TN three-phase network according to IEC 364-3. The neutral point of the secondary winding transformer is grounded and designed as protective earth conductor (Ground GND). There is no neutral conductor in this network.
Rated operating voltage in customer's network	460 V
Supply voltage frequency	60 Hz
Voltage fluctuations in customer's network	+/-10%
Neutral conductor in the connected customer's network	The customer's network has no loadable neutral conductor.
The adaptation of the electrical power supply	is not effected. The electrical components will be sized for each available non-standard main voltage, if possible. If, for technical reasons, electrical components with different voltage specifications are used, corresponding transformers are necessary in the machine electric. A network type allowed for the operation of Krones line components (TT network, TN-C network, TN-S network) must be provided.
Connection of KRONES machines and line system parts	Power is supplied to KRONES machines and system parts with 4-conductors system, 3 phases and protective earth conductor (L1, L2, L3, GND). The incoming-feeder bays are also structured as 4-conductors system. The required

Electrical line components

	operating voltages for electric components whose operating voltage is not provided by the customer's power supply system are generated by additional transformers in the machines and line system parts.
■ Rated operating voltage for line components of KRONES scope of supply.	460 V
■ Voltage fluctuations at the supply units of the line components and/or power subdistribution included in KRONES scope of supply.	+/-10%
■ Neutral conductor at the connection of KRONES machines and line components	Power is supplied to KRONES machines and line parts without loadable neutral conductor.

Contactors and disconnectors

■ Main and auxiliary contactor	make: Allen Bradley
■ Motor safety device	make: Allen Bradley
■ Time-delay relay	make: Allen Bradley
■ Relay	make: Allen Bradley, but not for special applications
■ Main switch	make: Allen Bradley
■ Main switch cut-off	3 pins
■ Hardware safety switching devices	make: Allen Bradley
■ Manufacturer of mechanical position switch	make: Schmersal
■ Safety switch design	without interlocking
■ Safety switch without interlocking	make: Allen Bradley / Guardmaster
■ Safety switch with interlocking	make: Allen Bradley / Guardmaster
■ Circuit breaker DC	make: Heinemann

Sensors

■ Light sensors	KRONES applies standard and high-quality sensors which are adapted optimally to the respective use.
■ Proximity detector	Determined by function and requirements, make Pepperl & Fuchs, IFM and Turck are used.

Power supply

■ power supply unit, controlled	make: Siemens
■ Control voltage, D.C.	24 V

Display and operation

■ Indicating and control devices with a diameter of 22.5 mm	make: Allen Bradley, AB 800
■ Operating system design	The components used are explicitly indicated in the machines.
■ Operating system Touchscreen	make: B&R, visualisation software ZenOn
■ Minimum size and/or type of the touch-screen used for machine operation.	The screen sizes used are explicitly indicated in the machines.
■ Design of touch-screen operator surface	Version 2.00: task-oriented visualisation with optimised operator guidance as well as solution-oriented message and diagnostics system according to style guide of KRONES AG 2011.
■ Manufacturer of signal beam	Make. Allen Bradley

■ Following functions are defined for the standard KRONES signal beams:
Visual signal red : Continuous light for malfunction, flash lamp for emergency stop
Visual signal green: Continuous light for automatic operation, flash lamp for production process interrupted.
Visual signal blue: Continuous light for imperative handling necessary, flash lamp for raw, processing and operating materials´ approaching the end, operator intervention necessary.
Visual signal yellow: Flash lamp for attention restart of process unit.

Electrical line components

Visual signal white: Muting signals the actual safe overriding of a contact-free safety device This lamp is usually integrated in the safety device.
Acoustic signal message: Automatic restart, general malfunction
Further specific functions are indicated in the respective operating manual of the process unit.

The structure of the signal beam depends on the type and function of the process unit and is indicated explicitly in the unit.

Transformers

■ Thermistor protection	Make: Allen Bradley

Cables and connections

■ Design of socket for programming unit	according to UL/CSA
■ Terminals	make: Phönix
■ Design of the electrical lines, for the internal machine installation	sheathed cable according to UL/CSA requirements
■ Design of electrical connection cables which are guided outside the machine by trays.	sheathed cable according to UL/CSA requirements, suitable for laying in cable trays (TC-ER), construction type MTW.
■ Design of electrical lines	Power cable according to UL/CSA and NEC (NFPA 70), conductor material copper
■ Electric lines	according to KRONES design. The manufacturer is determined by KRONES depending on the application.
■ Line screw connections	make: Lapp
■ Line identification plates	make: Murrplastik
■ Cable protection design	Protective hoses are installed at machines infeed and discharge, adjacent to aggregates and turning machine parts. This, however, is not the case with aseptic design parts of the line or with using lattice trays
■ Wire colours	conductor colours according to KRONES, similar to VDE standards
■ Main circuit outer conductor L1	black
■ Main circuit outer conductor L2	black
■ Main circuit outer conductor L3	black
■ Main circuit outer conductor L1 transformer, secondary side	brown
■ Main circuit outer conductor L2 transformer, secondary side	brown
■ Main circuit outer conductor L3 transformer, secondary side	brown
■ Main circuit neutral conductor N	white
■ Protective earth conductor, equipotential bonding conductor PE	green
■ Control circuit DC, outer conductor positive L+	dark blue
■ Control circuit DC, return conductor negative 0V	dark blue/white
■ External voltage AC/DC	orange
■ Measuring lines AC/DC	violet
■ Minimum core cross section with three-phase current	AWG 14 Under certain circumstances the minimum cross section may fall below within housings, if the connection of AWG is technically not possible (UL508A).
■ Minimum core cross section with alternating current (1 and 2 phases)	AWG 14 Under certain circumstances the minimum cross section may fall below within housings, if the connection of AWG is technically not possible (UL508A).
■ Minimum wire cross section in control circuits inside housings	AWG 18, with power supply lines AWG 16. With ready-made or permanently attached lines the cross section

Electrical line components

	may differ and cannot be changed.
■ Minimum wire cross section in control circuits outside housings	AWG 18 for circuits with 2 wires and frequently moved lines AWG 16. With ready-made or permanently attached lines the cross section may differ and cannot be changed.
■ The identification of individual cores is ensured	by using the existing identification of the terminals or devices in compliance with the connection diagram. KRONES uses cables marked with colour-code or imprinted numbers which can be clearly indentified by the corresponding terminal diagram. Additionally, an identification with self-adhesive labels, make: Brady, is applied whose numbering is identical to contact and terminal number.
■ Additional identification of the conductors	is only effected inside the housing, i.e. all cores in the control cabinet, control panel, terminal box, etc. include an additional identification feature. Feed lines, number wires and colour-coded cables as well as all cables at discharge for actuators, sensors and motors are not marked in this way.

Drive technology in general

■ Machine drive motors	make: SEW
■ Synchronous motor for machine drive	make: SSB
■ Servo motors for machine drive	make: SEW
■ Gear motors for machine drive	according to KRONES design. The manufacturers are determined by KRONES in dependence upon the application.
■ Conveyor drives	The frequency converters are installed in central design. All frequency converters are in the control cabinet.
■ Drive motors for container conveyor	make: SEW
■ Drive motors for pack conveyor	make: SEW
■ Synchronous motors for conveyor drives	make: SSB
■ Other drive units	according to KRONES design. The manufacturer is determined by KRONES depending on the application.
■ Protection type of drive motors	SEW drives in totally-enclosed, fan-cooled design, otherwise IP55
■ Protection type of the pump motors	in totally enclosed fan cooled design
■ Motor start conditions	Soft-start equipment for three-phase asynchronous motors from 5.5. kW upwards
■ Insulation class of drive motors	F
■ Protection against restart of the drives during maintenance is ensured	by switching off and locking the main switch or the maintenance switch on site. Additionally, a lockable isolator per drive is installed in the indicated areas.
■ Motor isolators used for	all three-phase motors of the conveyor drives, where the switch actuation can not cause a malfunction or damage at the machines or the line parts.
■ Motor isolator	make: Siemens
■ Function of motor isolator	Isolation of main and control circuit per drive, with visual display. Display and isolation of control circuit once per grouped unit.
■ Frequency inverter	make: Allen Bradley
■ Frequency inverter - manual input board	Each make of frequency inverter gets one manual input board per machine. In the transport technology each control cabinet gets a manual input board.
■ Frequency inverter for synchronous motors	make: Allen Bradley

Electrical line components

■ Manufacturer of decentralized frequency inverter motor - machine	make: Danfoss
■ Frequency inverter for servo motor	Due to constructional limits the manufacturer of the frequency inverter for servo motors is determined by KRONES and is described with the respective machines.
■ Soft start equipment	according to KRONES design. The manufacturer is determined by KRONES depending on the application.

Automation technology

■ Automation system	designed according to KRONES.
■ Manufacturer of programmable logic control unit (PLC)	Make: Allen Bradley
■ Programmable logic control unit (PLC)	Allen Bradley ControlLogix or GuardLogix
■ Power supply of programmable logic control (PLC)	provided by KRONES
■ Reserved space at the input and output ports	10 %
■ Field bus design	Ethernet IP
■ Sensor / actuator design	conventional

Housing and cooling

■ Location of the electrical components	is set by KRONES due to constructional reasons
■ Acceptance	is performed internally acoording to UL508A and NFPA79 for the electrical equipment manufactured by KRONES.
■ Housing protection type	NEMA 12
■ Material of the integrated control cabinet	Sheet steel (only for machines in the dry section)
■ The cable infeeds of the integrated control cabinet	are performed according to KRONES.
■ Design	of the stand-alone control cabinets according to KRONES
■ Stand-alone control cabinets	make: Rittal
■ Material of stand-alone control cabinet(s)	sheet steel
■ Width of stand-alone control cabinets	31,50 inch (800 mm)
■ Height of stand-alone control cabinets	70,87 inch (1.800 mm)
■ Depth of stand-alone control cabinets	15,75 inch (400 mm)
■ Stand-alone control cabinets	make Rittal, TS 8884.333 (WxHxD) 800 x 1800 x 400 sheet steel
■ Stand-alone control cabinets	with base
■ Material of bases of stand-alone control cabinets	sheet steel
■ Base height of stand-alone control cabinets	7,87 inch (200 mm)
■ Base of stand-alone control cabinets	Complete housing with mounted base
■ Side part of stand-alone control cabinets	make Rittal, type TS 8184.235 (wxh) 400 x 1800 made of sheet steel
■ Cable inlet into the stand-alone control cabinets	in the control cabinet base from the side
■ Max. transportation unit of the control cabinets	125,98 inch (3.200 mm)
■ Control cabinet foodpad levelling supports	for Rittal control cabinet
■ Reserve space in the control cabinet or on the component panel for the entire electrical installation	10 %
■ Manufacturerof illumination of mounted control cabinet and the free-standing control cabinets	according to KRONES. Lamps with energy-saving LED technology are applied. The orientation of the light beam is limited possible by turning the support.
■ The stand-alone control cabinets	are delivered with door.
■ Door latch of integrated control panel and free-standing control cabinets	with double bit key
■ Control cabinet lock for min. 2 control cabinets	for commercial main switches
■ Control cabinet door	for an aperture angle of 130 degrees
■ Turning on of illumination of the mounted control cabinet and the free-standing control cabinets	via toggle switch, integrated into the lamp

Electrical line components

■ Cooling of housing at the machines in the wet sector	with cooling unit
■ Cooling of the separate control cabinets in the wet sector	with cooling unit (under the condition that the control cabinets are supplied with doors).
■ Cooling of the housing at the machines in the dry sector	with cooling unit
■ Cooling of the separate control cabinets in the dry sector	with cooling unit (under the condition that the control cabinets are supplied with doors).
■ Control cabinet ventilation	according to KRONES design. The manufacturer is determined by KRONES depending on the application.
■ Control cabinet ventilation	continuous operation, without thermostat
■ Cooling unit design	according to KRONES. Manufacturer, type and installation are determined by KRONES depending on the application.
■ Cooling unit for stand-alone control cabinet	make: KRONES
■ Material of cooling unit for stand-alone control cabinets	sheet steel
■ Control panel material	according to KRONES design
■ Material of the sub-control panel	steel plate
■ Cooling unit for the control panel	Make: KRONES
■ Material of the housing of the indicating and control devices	plastic
■ Material of terminal boxes / receptacles	according to KRONES

Equipment

■ Marking of electrical components outside the housings is made	with yellow film sticker
■ Marking of electrical components in the housing	with yellow film stickers at the object
■ Analog signal exchange between the machines of this line	4 - 20 mA DC

Network technology

■ Provision	for customer's network
■ Network design	via Ethernet. The simultaneous operation of not approved customer applications and KRONES applications on the same network are not allowed.
■ Network cabling	in star structure
■ Network cabling material	with copper cables and fibre optic cables

Deviating for machines is applied:
1. Packaging line VARIOLINE 2M

Electrical connection data

■ Identifier of process unit for connection diagram	=EPB1
■ Full-load current Ib max.	67 A
■ Rated connected apparent power	53,7 kVA

Contactors and disconnectors

■ Safety switch without interlocking	make: Schmersal

Display and operation

■ Operating system	Control of the machine / the conveyors is effected via a touch-screen. For safety functions as well as main activation functions additional indicating and control devices are used.
■ Type and/or size of the touch-screen used	15" Clean Design - colour display in stainless steel hous-

Electrical line components

	ing with ZenOn visualisation software
■ Structure of signal beam	Bottom-up: illuminating indicator blue, green, red
Drive technology in general	
■ Machine drive motors	make: SEW
■ Frequency inverter for servo motor	make: B&R
Automation technology	
■ Automation technology	Programmable Logic Control (PLC)
■ Manufacturer of programmable logic control unit (PLC)	make: Siemens
■ Series of the programmable logic control (PLC)	Siemens S7 300
■ CPU - type of programmable logic control (PLC)	CPU 317-2DP
Housing and cooling	
■ Installation place of electrical components	in the control cabinet integrated in the machine
■ Cooling unit design	according to KRONES. The installation is determined by KRONES depending on the application.
■ Cooling unit for control panel	make: KRONES
■ Material of the control cabinet cooling unit	sheet steel
■ Material of the free-standing control panel (operator panel)	stainless steel
Network technology	
■ Provision	for a KRONES network
2. Container conveyor SYNCO S	
Electrical connection data	
■ Identifier of process unit for connection diagram	=TBB1
■ Full-load current Ib max.	14 A
■ Rated connected apparent power	11,1 kVA
■ Rated connected active power	10,81 kW
■ Power factor cosinus phi	0,97
■ Length of the electrical connection lines from the separate control cabinet to the machine	328,08 feet (100 m)
Contactors and disconnectors	
■ Handle (pressing main switch)	FMD (Flange Mounted Disconect)
■ Design of safety technology	with hardware switching devices The logics of the safety technology is only implemented in the connection of hardware devices.
Display and operation	
■ Operating system	Control of the machine / the conveyors is effected via a touch-screen. For safety functions as well as main activation functions additional indicating and control devices are used.
■ Type and/or size of the touch-screen used	15" colour display with ZenOn visualisation software
■ Structure of signal beam	Illuminating indicator red
Automation technology	
■ Automation technology	Programmable Logic Control (PLC)
■ CPU - type of programmable logic control (PLC)	ControlLogix 1756-L71

Electrical line components

Housing and cooling

Installation place of electrical components	in stand-alone control cabinets
Number of stand-alone control cabinets	3
Cooling for separate control cabinet	with air conditioning (under the condition that the control cabinets are supplied with doors).
Cooling of control panel, control cabinet and control desk	with cooling unit
Control panel design	fix mounted
Control panel material	stainless steel
Cooling unit for control panel	according to KRONES. Material, manufacturer, type and installation are determined by KRONES according to the application.
Cooling unit for the control panel	make: KRONES
Material of the terminal boxes / receptacles	stainless steel

3. Linear rejection unit 083 S

Electrical connection data

Supply of the power line is effected	by KRONES
Voltage supply	via the conveyor control
Identifier of process unit for connection diagram	=LA1
Full-load current Ib max.	4 A
Rated connected apparent power	0,9 kVA
Rated active power	0,92 kW

Contactors and disconnectors

Main switch	make: Eaton/Moeller
Handle (pressing main switch)	rotating in red/yellow
Design of safety technology	with hardware switching devices The logics of the safety technology is only implemented in the connection of hardware devices.

Display and operation

Operating system	Control of the machine / the conveyors is effected via a touch-screen. For safety functions as well as main activation functions additional indicating and control devices are used.
Operating system touch-screen	make: B&R
Type and/or size of the touch-screen used	5.7" colour display (mini panel) with ZenOn process visualisation software

Housing and cooling

Material of the integrated control cabinet	stainless steel

4. Pack conveyor MULTICO S

Electrical connection data

Identifier of process unit for connection diagram	=TBG1
Full-load current Ib max.	19 A
Rated connected apparent power	15,1 kVA
Rated connected active power	15,13 kW
Power factor cosinus phi	1,00
Length of the electrical connection lines from the separate control cabinet to the machine	328,08 feet (100 m)

Electrical line components

Contactors and disconnectors

■ Handle (pressing main switch)	FMD (Flange Mounted Disconect)
■ Design of safety technology	with hardware switching devices The logics of the safety technology is only implemented in the connection of hardware devices.

Display and operation

■ Operating system	Control of the machine / the conveyors is effected via a touch-screen. For safety functions as well as main activation functions additional indicating and control devices are used.
■ Type and/or size of the touch-screen used	15" colour display with ZenOn visualisation software
■ Structure of signal beam	Illuminating indicator red

Automation technology

■ Automation technology	Programmable Logic Control (PLC)
■ CPU - type of programmable logic control (PLC)	ControlLogix 1756-L72

Housing and cooling

■ Installation place of electrical components	in stand-alone control cabinets
■ Number of stand-alone control cabinets	4
■ Cooling for separate control cabinet	with air conditioning (under the condition that the control cabinets are supplied with doors).
■ Cooling of control panel, control cabinet and control desk	with cooling unit
■ Control panel design	free-standing control panel
■ Control panel material	stainless steel
■ Cooling unit for control panel	according to KRONES. Material, manufacturer, type and installation are determined by KRONES according to the application.
■ Cooling unit for the control panel	make: KRONES