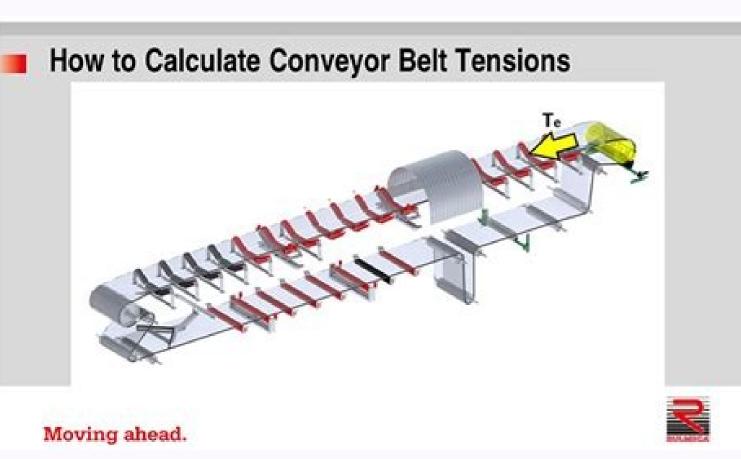
Belt conveyor maintenance manual pdf











Conveyor belt maintenance manual pdf. Belt conveyor operation and maintenance manual. How to maintain conveyor belt. Conveyor belt maintenance checklist. Intralox conveyor belting installation maintenance & troubleshooting manual. Belt conveyor problems. Belt conveyor details

Loading... Home denniswat 2018-11-20T21:55:19+08:00 Scavenger Fire & Safety Grating FRP Australia Conveyor Technology Purchase genuine OEM parts for any product in the Middleby family of brands. Quickly purchase genuine OEM parts for any product in the Middleby family of brands.

Working with an efficient conveyor application not only enhances productivity, but also promotes a safer work environment. Therefore, it is imperative to ensure that your conveyor system routinely undergoes monthly maintenance and inspection to proactively detect any issues or miscalibrations. As a result, you can prevent major, expensive breakdowns that halt your production line. In the content below, we discuss monthly conveyor safety procedures and provide a comprehensive preventative maintenance checklist to ensure optimal machinery performance. You can also download our quick, easy-to-follow guide on keeping your conveyor on track for the future. Knowing When Your Conveyor Needs Maintenance Conveyor safety begins with understanding the equipment in your conveyor application. To best forecast the necessary maintenance tasks associated with your desired cleanroom conveyor system, answer the following questions: How often does the system require scheduled maintenance and repairs? How easily can inspection and repairs be completed? What components or tools are required to successfully maintain and keep the conveyor clean? Consider each conveyor clean? Consider each conveyor clean? Keep in mind - replacement parts with lower availability could result in paused or delayed production for your business. Monthly Conveyor Safety and Preventative Maintenance Checklist While many maintenance tasks only require quarterly or annual servicing, it is imperative to regularly inspect every conveyor component to detect malfunctions or miscalibrations. Below, we provide a comprehensive monthly conveyor system maintenance checklist as per each compartment type. Motor Conveyor maintenance begins with the motor, for no other functions operate properly without a working engine or propeller. Three actions pertain to the motor, for no other functions operate properly without a working engine or propeller. recommended to complete this step on a weekly basis. As a result, in the event the motor sound rings at a different output, you can quickly detect and remedy the issue. Check and record the motor sound rings at a different output, you can quickly detect and remedy the issue. Check and record the motor sound rings at a different output, you can quickly detect and remedy the issue. mounting bolts to ensure conveyor safety. If you notice a loose mounting bolt, promptly secure it and document which bolt was loose for future monitoring. Reducer Upon completion of your conveyor motor inspection, turn your attention to the reducer. Then, complete each of these three actions below: Listen to and examine the noise output of the reducer. If you notice the reducer's noise level reaching a unique output or frequency, or even makes a clanging noise, you can then quickly identify and reporting the temperature on a monthly basis, you can later identify any temperature abnormalities. Check the reducer's oil levels. Like a vehicle, it is imperative to ensure the reducer's oil levels are neither too high nor too low. By regularly inspecting the levels, you can better determine how often the reducer experiences oil changes and identify if oil is burning faster than normal. Drive Chain The purpose of a conveyor is to carry the manufactured products along the conveyor, especially for assembly processes. In the event your conveyor safety by applying preventative drive chain conveyor maintenance through completing the following inspection checks: Test the tension. While often completed on a monthly basis, we recommend that you monitor the tension weekly to easily notice subtle changes such as the tension tightening or loosening. Lubricate the drive chain enhances the conveyors performance by eliminating excess friction. Be sure to utilize the proper lubrication products as recommended by the manufacturer to avoid rusting or product malfunction. Evaluate for wear and tear. While that is normal to a certain degree, it is wise to prevent excessive wear and tear through routine maintenance. Therefore, evaluate the chain to notice any signs of rusting, snagging or the drive chain falling off the track. Sprockets are pivotal conveyor elements. Therefore, stay on top of preventative maintenance by completing the following inspection checks: Examine for wear and tear. As sprockets are toothed gears or profiled wheels that cause a conveyor chain or belt to transmit rotary motors, it is detrimental to the successful operation of your conveyor if a sprocket breaks. Therefore, evaluating the current condition of your set screws and keys on a monthly basis, you can guickly notice any areas needing maintenance or immediate repairs. Belt The conveyor safety and efficiency by completing the preventative maintenance tasks below. Evaluate the tracking. By assessing the tracking, you will notice signs of wear and tear. In the event you find a damaged section of the tracking, you can guickly replace the segment before it causes additional reparations. Test the tension to ensure the belt is not held too tight or too loose. Either scenario may result in conveyor breakdowns that cost your operation both time and money to correct. Check the lacing is off or not congruent with the rest of the conveyor. Therefore, inspect the lacing for any abnormalities. Bearings (Pulleys and Rollers) Listen to the noise level and output. Similar to the process of motor and reducer preventative maintenance, assess and record the noise level and output of the bearings. Evaluate the mounting bolts. If you notice a loose mounting bolt, promptly secure it and document which bolt was loose for future monitoring. V-Belts and O-Rings Test the tension. Monitor the tension to ensure the V-belts and O-rings are not too loose. Either scenario may result in conveyor breakdowns that cost your operation both time and money to correct. Examine for wear and tear. Evaluate both the V-belts and O-rings to identify any premature signs of excessive wear and tear. Evaluate both the V-belts and O-rings to identify any premature signs of excessive wear and tear. Evaluate both the V-belts and O-rings to identify any premature signs of excessive wear and tear. sheave alignment for any unbalancing, you can quickly notice if something appears out of alignment. Structural Evaluate every bolt. If you notice a loose bolt anywhere on your conveyor application, practice conveyor safety by promptly securing or replacing it and documenting which bolt was loose for future monitoring. Safety Evaluate machine guard placement. This maintenance task applies to all belts, pulleys, sprockets, and any other pinch point on your conveyor system. Ensure the guard placement is in optimal condition and proper place. Check emergency stops. In the event of an emergency, you will want the stops to function instantly and effectively. As a minimum requirement, test every emergency stop on a monthly basis if not weekly. High-Quality Conveyor Solutions with Richards-Wilcox Conveyor Performing preventative maintenance to a conveyor can improve productivity and longevity radically, but not all models are made with high-quality materials. However, from design simulation to customizing conveyors for your specific needs, we can help you create a conveyor system perfect for your application and ready for the long-haul. At Richards-Wilcox Conveyor, our customized conveyor designs are engineered for innovation - radically changing with an evolving world. With numerous applications and capabilities, we find and manufacture ideal solutions for your conveyor system needs. If you have any further inquiries or would like to request a quote, contact us today! Page 1 Digital flatbed cutter G3 series (M-1600, XL-3200, XL-1600, XL-3200, XL-32 maintenance1 General . Page 8 G3 series 000017,03,06-2009, jmu... Page 9 We are therefore grateful for any comments or suggestions on how we can improve. Contact Zünd Systemtechnik AG Industriestrasse 8 CH - 9450 Altstätten Tel. ++41 71-757 8181 ++41 71-757 8191 info@zund.com mail zund.com 000009,06,11-2009, jmu... Page 10 Introduction G3 series Using the documentation Using the documentation The instruction handbook supplied is intended to help you to: - Operate the machine maintenance - Use the machine maintenance - Use the machine optimally in all permitted areas To do this, you need to be able to find what you want within the documentation. The instruction handbook comprises: Volume 1 - Operating manual This volume contains information on the engineering, installation, operation and... Page 11 G3 series Introduction Using the documentation 1.2.2 Symbols Illustration Close, fix, tighten, in Open, release, loosen, out Higher Lower Text structuring Task: Steps to perform Result: Outcome of the tasks performed. Prerequisites for performing a task List of tools Optional accessories There are a number of optional accessories available for the machine. Page 12 Introduction G3 series Points to note when reading this operating manual Text references Chapter headings are numbered consecutively, with the first figure corresponding to the chapter number. Where reference is made to sections outside the current status of documentation Current status of documentation Current status of documentation Current status of documentation accordingly to make sure that the documentation is complete and up-to-date at all times: - Do not remove parts of the documentation - Request copies of missing or illegible pages from the manufacturer, or download and print them from the Zünd homepage -... Page 14 Introduction G3 series Standardisation, tests, marking Machinery Directive 2006/42/EC and/or without CE marking. As a result, the declaration of conformity must be issued again by the purchaser. 1.6.3 UL testing Zünd G3 cutters have been UL tested and comply with the ISO 60950 standard. The certification can be accessed under UL number E176661. Page 15 Offenders will be liable for damages. Troubleshooting, hints and tips Important! You can find information about troubleshooting and useful hints and tips on the Zünd homepage. (www.zund.com) Documented cutter models This documentation applies for the following types of G3 series Product description General

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Product description General This chapter contains information on the following: - Representational conventions in the operating manual - Possible uses of the machine - Structure of the main components - Important technical data - General technical description of the device Directional information Directions such as "right, left"... Page 18 Product
description G3 series Product identification Product identification Product identification 2.2.1 Rating plate Important! The rating plate is used to uniquely identify your machine. Fig. 2-2 Position of rating plate Important! The rating plate is used to uniquely identify your machine. Fig. 2-2 Position of rating plate Important! The rating plate is used to uniquely identify your machine. Fig. 2-2 Position of rating plate Important! The rating plate is used to uniquely identify your machine.
Intended use 2.2.2 UL marking Fig. 2-3 UL marking Fig. 2-3 UL marking 1 UL marking 6 Ganada, USA) 3 Max. current 2 Voltage range 4 Frequency Intended use The cutter system can be used for the following purposes: - As an output device for CAD/CAM data -... Page 20 Product description G3 series Cutter - overview Fig. 2-4 Cutter - overview 1 Work
 station 8 Power unit 2 Cutter extension, front 9 Right-hand safety device 3 Table with vacuum generator 5 Bar 12 Extractor (optional) Page 21 Zünd offers tools for processing the most wide ranging materials. A selection of important tool inserts can be found under the corresponding module.
On the Zünd homepage (www.zund.com) you can find all the current tool inserts or contact your Zünd partner for detailed information. Page 22 Product description G3 series Modules, tools 2.5.2.1 Tools for the UM POT: Pneumatic oscillating tool for thick or tough materials such as foam, filling materials, thick leather, upholstery fabrics etc. EOT:
 Electrical oscillating tool for cutting tool for rotating knives for cutting tool for rotating knives for cutting tool for rotating knives for cutting tool for rotating tool for rotating tool for rotating knives for cutting knives fo
 with 1000 W for the processing of the most wide-ranging materials. 2.5.4 Punching and stamping module for use of ballpoint pens and other marking inserts. 000003,07,05-2010, jmu... Page 25 G3 series Product
description Material handling, options Material handling, options 2.6.1 Laser pointer The laser pointer is used as an aid for importing the registration marks. Page 26 Product description G3 series Material handling, options 2.6.4 Cutter with conveyor
Conveyor systems are used for pulling the materials to be worked with. The conveyor belt is used as a cutting base and conveyor belt at the same time. During the processing, the material to be processed is fixed in place using a vacuum. Page 27 G3 series Product description Material handling, options 2.6.6 Drip tray Catches cutting waste 2-11
 000003,07,05-2010, jmu... Page 28 Product description G3 series Technical description 2.7.1 Complete machine The G3 cutter is a variable processing system for flexible and rigid materials with various tool systems. Extension options are available to provide improved handling and for the adjustment of the system to special
requirements or for processing specific materials. Page 29 G3 series Product description 2.7.3 Complete machine Table/vacuum plate The work surface is designed as a perforated sheet. Vacuum zones are arranged under this perforated sheet which are connected to a high-performance vacuum generator via a distributor. The
vacuum is used for holding down and tightening the material to be processed. The cutter control permits sequential activation/deactivation of the individual vacuum zones and therefore reduces energy consumption. Page 30 Product description G3 series has four electronically driven axes.
Axis Function Movement system Drive via toothed belt/steel belt Material transport, material Feed clamp elements, feeding transport extension clamps, auxiliary drive Movement of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Material transport, material Feed clamp elements, feeding transport extension clamps, auxiliary drive Movement of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed belt/steel belt Carriage Height adjustment of the module Drive via toothed 
The multitude of materials which can be processed with the different module and tool systems means that there is no single way to achieve the target. However, the following factors always play an important role and must always be set/ selected for the specific materials which can be processed with the different module and tool systems means that there is no single way to achieve the target. However, the following factors always play an important role and must always be set/ selected for the specific materials which can be processed with the different module and tool systems means that there is no single way to achieve the target.
 Work surface (A) [mm] M-1600 1330 x 1600 2055 x 2512 M-2500 1330 x 2500 2055 x 3412 L-2500 1800 x 2500 255 x 3412... Page 33 G3 series Product description Technical information Type Static material clear-Material clearance Material clearance Material clearance Material clearance width width with CV (D) rance thickness [mm] [mm] M-1600 1610 1330 M-2500 1610
1330 L-2500 2080 1800 L-3200 2080 1800 XL-1600 2550... Page 34 Product description G3 series Technical information 2.8.1.2 Cutter extension for the feeding and removal of material Fig. 2-10 Cutter extension dimensions Cutter
 extension T1 [mm] Type... Page 35 G3 series Product description Technical information 2.8.2 Electrical connection, power consumption - 3 phases (without 3.6 KW vacuum generator) Current consumption, 3
phases (without max. Page 36 Product description G3 series Technical information Conveyor feeding clamps Value Units Setting - pressure regulator maintenance unit 0.6 MPa (P3) Control of vacuum zones, supply of various Value Units modules, tools Operating pressure 0.6 - 0.8 MPa Min. air flow 20 l/min Setting - pressure regulator maintenance
 unit 0.6 MPa... Page 37 G3 series Product description Technical information 2.8.6 Performance Precision Value Units Resolution of measuring system 0.005 mm Positioning accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 mm Repeat accuracy at a constant temperature ± 0.1 m
38 Product description G3 series Technical information 2.8.7 Emissions Noise Continuous sound pressure level of the cutter < 75 dB (A) Depending on the tool system and materials to be processed: - if the limit value of 85 dB (A) Depending on the tool system and materials to be processed: - if the limit value of 85 dB (A) Depending on the tool system and materials to be processed: - if the limit value of 85 dB (A) is exceeded, -... Page 39 G3 series Safety General Saf
 otherwise - is the primary concern. Certain situations, problems or faults that may occur on the equipment could put your safety at risk if you are not aware of the machine is essential for its safe operation. The equipment
supplied: • Is listed and labelled • Determines the possible uses of the machine is intended for use as an output device for CAD/CAM data for the labelling and processing of materials arranged on the table. Page 41 G3 series Safety Hazard warnings, important instructions 3.4.1 Explanation of the
hazard warning Both in the operating manual and on the device itself, dangers, important instructions and user tips are designated by special symbols and signal words as follows. Danger •... Page 42 Safety G3 series Hazard warnings, important instructions 3.4.2 Structure of the hazard warnings Example: Warning!
 Risk of poisoning from the emission of toxic dust Processing certain materials can lead to the creation of toxic dust with significant risk to health. •... Page 43 G3 series Safety Areas of responsibility The manufacturer • Is responsible for the safe condition of the machine on delivery, including instruc- tion handbook and
 accessories, according to the sales documentation. The owner or person authorised by him: •... Page 44 Safety G3 series Rules and safety at work Rules and safety at work and accident prevention. • Before the machine is put into operation: Always check
the safety equipment and protective covers. Page 45 G3 series Safety Danger area 3.9.1 General danger area 5.9.1 General danger area 5.9.1 General danger area 5.9.2 Danger area 5.9.1 General danger area 5.9.1 General danger area 5.9.1 General danger area 5.9.2 Danger area 5.9.1 General danger area 5.9.1
module carriage is not secured using safety devices. • Do not reach into the danger area during the manual initialisation •... Page 47 G3 series Safety Danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the manual initialisation • Do not reach into the danger area during the danger a
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G3 series Safety Safety signs 3.11 Safety signs 3.11 Safety signs 3.11 Safety signs as per Fig. Page 50 Safety signs Warning! Safety risks due to missing or illegible safety signs as per Fig. Page 50 Safety signs Warning! Safety risks due to missing or illegible safety signs as per Fig. Page 50 Safety signs Warning! Safety risks due to missing or illegible safety signs as per Fig. Page 50 Safety signs Warning! Safety risks due to missing or illegible safety signs as per Fig. Page 50 Safety signs Warning! Safety risks due to missing or illegible safety signs warning! Safety signs Warning! Safety signs Warning! Safety risks due to missing or illegible safety signs warning! Safety signs warning! Safety signs Warning! Safety risks due to missing or illegible safety signs warning! Safet
 illegible safety signs. Check all safety signs. Check all safety signs on a regular basis for legibility and completeness. Replace missing or illegible safety signs. Meaning of safety signs on a regular basis for legibility and completeness. Replace missing or illegible safety signs on the safety signs. The symbols on the safety signs on a regular basis for legibility and completeness. Replace missing or illegible safety signs on the safety signs.
to objects and circumstances which represent a potential danger to life and limb. Danger of hand injuries (crushing) Danger of hand injuries (severing) Dang
 Emergency stop switch 3 Operating unit 2 Protective system 3-14 000011,08,11-2009, jmu... Page 53 G3 series Safety Safety and monitoring devices 3.12.1 Protective system Attention! If there is a collision, the bar may cause serious injuries. The high level of kinetic energy of the drive results in a braking distance which cannot be ignored. Light
 barriers and safety cut-offs are no guarantee against injuries. Page 54 Safety G3 series Safety and monitoring devices 3.12.3 Emergency stop switches are part of a protective circuit - They allow the machine to be turned off quickly in hazardous situations Two emergency stop switches can optionally be fitted on the edges of
the machine. The mains power supply to the whole machine is switched off as soon as the emergency stop switch is pressed. Page 55 G3 series Safety Personal protective equipment, clothing 3.13 Personal protective equipment, clothing 3.13 Personal protective equipment, clothing The safety Personal protective equipment, clothing 3.13 Personal protective equipment, clothing The safety Personal protective equipment, clothing 3.13 Personal protective equipment expects and clothing 3.13 Personal protective expects and clothing 3.13 Personal protective expects and clothing 3.13 Personal protective expects and clothing 3.13 Personal protective
tool system - The material to be processed When operating the machine or carrying out maintenance or servicing work, wear close-fitting clothing and the appropriate personal protective equipment. Page 56 Safety G3 series Mechanical hazards 3.14 Mechanical hazards 3.14.1 Gathering, retraction Hazards caused by the bar, modules or the tool
 system during gathering and retraction Possible consequences: • Cuts, bruising and crushing of head and arms •... Page 57 G3 series Safety Risk of burns 3.14.3 Cuts and stab wounds Knives, routers and punching inserts have very sharp edges which are sometimes hidden by moving equipment (slipper spring).
 Possible consequences: • Cuts and stab wounds to the hands and arms Precautions during the knife change, initialisation and the operation in the ONLINE operation in the ONLINE operation status of the machine is operated with a mains
 voltage of 380 V, system frequency of 50/60 Safety instructions • Only trained service personnel are authorised to open switch boxes and electro- nics units. Page 59 G3 series Safety Risks arising from the emission of toxic dust Processing the
 most wide-ranging materials can lead to the creation of toxic dust with significant risk to health. Page 60 Safety G3 series Environmental hazard Warning! Processing residues, operating fluids etc. can cause damage and pollute the environmental hazard Warning! Processing residues, operating fluids etc. can cause damage and pollute the environmental hazard Warning! Processing residues, operating fluids etc. can cause damage and pollute the environmental hazard Warning! Processing residues, operating fluids etc. can cause damage and pollute the environmental hazard warning! Processing residues, operating fluids etc. can cause damage and pollute the environmental hazard warning! Processing residues, operating fluids etc. can cause damage and pollute the environmental hazard warning! Processing residues, operating fluids etc. can cause damage and pollute the environmental hazard warning! Processing residues, operating fluids etc. can cause damage and pollute the environmental hazard warning! Processing residues, operating fluids etc. can cause damage and pollute the environmental hazard warning! Processing residues, operating fluids etc. can cause damage and pollute the environmental hazard warning! Processing residues, operating fluids etc. can cause damage and pollute the environmental hazard warning fluids etc. can cause damage and pollute the environmental hazard warning fluids etc.
hazard label Hazard label for substances that are harmful to the environment Safety regulations and protective measures •... Page 61 Important! Chemicals classed as irritants are used to operate and clean this machine (cleaning agents, operating fluids).
(www.Zund.com). Safe handling of chemicals Disposal! Dispose of chemicals in accordance with national regulations. Page 62 Safety G3 series Risk of fire and explosion 3.21 Risk of fire and explosion Warning! There is a risk of fire and explosion Warning! There is a risk of fire when routing and cutting inflammable materials Terminate the routing/cutting and leave the tool to cool in the case of
 •... Page 63 G3 series Safety Danger caused by laser beam (laser pointer) In the event of a fire: • Switch off the machine (emergency stop switch) • Assess the situation: If the situation is dangerous, leave the area immediately and call the fire brigade. Only try to extinguish the fire if your personal safety is not at risk. Page 64 Safety G3 series Safety
 precautions for service personnel 3.24 Safety precautions for service personnel The reliability, readiness and service personnel The reliability, readiness and service personnel 3.24 Safety precautions for service personnel The reliability, readiness and service personnel The reliability personnel The reliabili
 General Controls and operation General This chapter familiarises you with the controls, quides you through the operation of the main components - Detailed information on the operation of the machine -... Page 66 Controls and operation G3 series Controls
Controls 4.3.1 Control panel Fig. 4-1 Control panel 1 Switch unit 3 Operating unit 2 Emergency stop switches 000010,10,05-2010, jmu... Page 67 G3 series Controls and operating unit 5TOP 1 Display ONLINE 2 Soft keys SHIFT 3 Navigation keys 4 Numerical keys 10 Travel keys Tool up/down key
(vacuum) 6 Coordinate system (axes) 12 Function keys 000010,10,05-2010, jmu... Page 68 Controls and operation G3 series Controls 4.3.1.2 Navigation keys Fig. 4-3 Navigatio
 series Controls and operation Controls 4.3.1.5 Travel keys, shift key 1 Move module to the left 5 SHIFT key 3 Move module to the right 2 Move module to the right 2 Move module to the left 5 SHIFT key 3 Move module to the right 2 Move module to the right 3 Move mod
Controls 4.3.1.7 Special keys, shortcuts Important functions are defined with separate keys on the operating unit: Function Current operation Current Operat
 Controls 4.3.2 Emergency stop switches Attention! Risk of damage to the machine in an emergency stop switches are part of a protective circuit •... Page 72 Controls and operation G3 series Controls Important! An emergency stop switch that
 has been pressed remains locked in the off position. To unlock an activated emergency stop switch after regaining operation Controls 4.3.3
Maintenance unit The maintenance unit 1 Stopcock 4 Air pressure setting for conveyor clamp elements (P3) 2 Water separator 5 Fixing bracket for an additional, options. Fig. 4-9 Maintenance unit 1 Stopcock 4 Air pressure setting for various... Page 1 Stopcock 4 Air pressure setting for various modules and options.
74 Controls and operation G3 series Controls 4.3.4 Interfaces The machine has interfaces for data exchange. These are attached to the electronics unit. Fig. 4-10 000010,10,05-2010, jmu... Page 75 G3 series Controls and operation Menu navigation Menu
 navigation 4.4.1 Menus and functions Navigation The cutter has a large number of functions. The current menu number, menu Graphic layout Symbol Description... Page 76 Controls and operation G3 series Menu navigation Value/entry = If a flashing cursor appears
on the display below a number, then a number input is required \Rightarrow Enter the required \Rightarrow Enter the required \Rightarrow Check the value and confirm using ESC Select \Rightarrow... Page 77 G3 series Controls and operation Menu navigation 4.4.2 Help Help texts are available for important menu entries. In order to display a help
text, mark the required menu and press the key. 4.4.3 Info menu Within the menu the Info menu within the key. Page 78 Controls and operation G3 series Menu navigation 4.4.5 User level Access to menus and functions is blocked according to the user level. The user levels have a hierarchical structure. This means that the next highest
user also has the access rights to the menu functions that the subordinate user has. User level Description Users 1 - 3... Page 79 G3 series Controls and operation Menu navigation 4.4.6 Functions that the subordinate user has. User level Description Users 1 - 3... Page 79 G3 series Controls and operation Menu navigation 4.4.6 Functions that the subordinate user has function when the subordinate user has f
keys directly \Rightarrow Press the SHIFT key and the function key (F1 - F8) which you wish to change at the same time \Rightarrow... Page 80 Controls and operation G3 series Functions Function from the menu \Rightarrow Select the function key (F1 - F8) which you wish to change at the same time \Rightarrow... Page 80 Controls and operation G3 series Functions Functions Function from the menu \Rightarrow Select the menu \Rightarrow Select the function from the menu \Rightarrow Select the function from the menu \Rightarrow Select the function from the menu \Rightarrow Select the
confirm 4.5.2 Set display Setting the contrast Description... Page 81 G3 series Controls and operation Operation 4.6.1 Daily checks prior to start-up Attention! There is a risk of injury if the machine is defective machine. Page 82 Controls and
 operation G3 series Operation 4.6.2 Start-up Switching on the machine Fig. 4-12 Switching on the machine Fig. 4-18 000010,10,05-2010, jmu... Page 83 G3 series Controls and operation Operation Operation Initialising the machine Fig. 4-18 000010,10,05-2010, jmu... Page 83 G3 series Controls and operation O
due to automatic starting of the machine = Following initialisation, the operating status OFFLINE is active. The cutter can be switched into three operating status estatus of the machine = Following initialisation, the operating status of the machine = Following initialisation, the operating status of the machine = Following initialisation, the operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation and operating status of the machine = Following initialisation = 
 depending on the purpose: - OFFLINE - ONLINE - STOPPED A combination of keys can optionally be used to switch from any operating status to either of the other two operating status to either of the machine In the OFFLINE operating
 status, the cutter receives commands from the operating software. These commands can be used to switch to the operating status ONLINE and operating status ONLINE is active. Commands are received and processed
in this operating status. \Rightarrow must be pressed in order to activate the operation Operation Operation 4.6.4 Moving the bar/module manually Fig. 4-14 Moving the bar/module The module carriage can be moved using the travel keys in the operating status
OFFLINE. The assignment of keys corresponds to the direction of travel. Pressing the SHIFT key at the same time will make the module carriage move faster. Page 88 Controls and operation G3 series Handling modules/tools Modules are independently recognised by the cutter control unit. Tools, on the other hand, do not
have automatic recognition and must be manually allocated to a module. Tool-specific parameters (initialisation, moving speeds, acceleration) are saved to the corresponding tool and can be called up again at any time. Page 89 G3 series Controls and operation Handling modules/tools 4.7.1 Module/tool/tool insert Fig. 4-16 Module
carriage/module/tool/blade, router, etc. 1 Module (e.g. RM, UM) 2 Tool (e.g. 1000 W motor spindle, oscillating tool) 3 Module carriage (e.g. 3-way) 4 Router, blade, etc. 4-25 000010,10,05-2010, jmu... Page 90 Controls and operation G3 series Handling modules/tools 4.7.2 Set module/tool change position (can be set at operator user level or higher)
Fig. 4-17 Example: module carriage position 2 for changing the module carriage position 2 for changing standard module carriage position 2 for changing the module 2 for changing 2 for chan
module 4.7.3.1 Module mount Fig. 4.18 Module mount 1 Locking mechanism 3 Electrical connection 2 Mounting ledge 4.7.3.2 Inserting/replacing the module (e.g. UM) Fig. 4.18 Module mount 1 Locking mechanism 3 Electrical connection 2 Mounting ledge 4.7.3.2 Inserting/replacing the module (e.g. UM) Fig. 4.18 Module mount 1 Locking mechanism 3 Electrical connection 2 Mounting ledge 4.7.3.2 Inserting/replacing the module (e.g. UM) Fig. 4.18 Module mount 1 Locking mechanism 3 Electrical connection 2 Mounting ledge 4.7.3.2 Inserting/replacing the module (e.g. UM) Fig. 4.18 Module mount 1 Locking mechanism 3 Electrical connection 2 Mounting ledge 4.7.3.2 Inserting/replacing the module (e.g. UM) Fig. 4.7.3.2 Inserting module mount 1 Locking mechanism 3 Electrical connection 2 Mounting ledge 4.7.3.2 Inserting module mount 1 Locking mechanism 3 Electrical connection 2 Mounting ledge 4.7.3.2 Inserting module mount 1 Locking mechanism 3 Electrical connection 2 Mounting ledge 4.7.3.2 Inserting module mount 1 Locking mechanism 3 Electrical connection 3 Electrical connection 3 Electrical connection 3 Electrical connection 4 Electrical connection 3 Electrical connection 4 Electrical connection 4 Electrical connection 4 Electrical connection 4 Electrical connection 5 Electrical connection 5 Electrical connection 6 Electrical connection 7 Electrical connection 7 Electrical connection 7 Electrical connection 7 Electrical connection 8 Elec
carriage moves to the module change position. \Rightarrow Place the module on th
required module. Module Key combination Module 1... Page 94 Controls and operation G3 series Handling 4.7.5.1 Marking the tool (e.g.) \Rightarrow Label all tools of the same type with a consecutive number. Appropriate adhesive labels are supplied with the equipment. 4.7.5.2 Switching the
tool manager on/off The tool manager is a user interface for handling module/tools in combination with a universal module (UM). Page 95 G3 series Controls and operation Handling module/tool change position. \Rightarrow Insert the tool and
 connect the power supply if it is driven electrically or pneumatically. Page 96 Controls and operation G3 series Handling modules/tools 4.7.6.1 Creating a new tool => Insert the marked tool into the module. Tool type => ...
 Page 97 G3 series Controls and operation Handling modules/tools 4.7.7 Inserting at connecting a tool (e.g. oscillating tool) Ensure, that following preconditions are fulfilled: 

The machine is switched off and is in the operating status STOPPED The machine is switched off and is in the operating status STOPPED.
 operation G3 series Handling modules/tools 2 Module lock 5 Positioning bracket 3 Connector socket Important! The tool holder and a holding fixture are each marked with a red dot. The tool is in the correct position when the dots are aligned. = ... Page 99 G3 series Controls and operation Handling modules/tools 4.7.8 Connecting driven tools -
 allocating port Driven tools (e.g.: EOT, DRT, POT) require an energy supply (electrical, pneumatic). This energy supply is controlled by the cutter control unit. Electrically driven tools are inserted into the intended port on the connector control unit. Electrically driven tools are inserted into the intended port on the connector control unit. Electrically driven tools are inserted into the intended port on the connector control unit.
 Connection - pneumatic tools Pneumatic tools Pneumatic and modules are connected to the interface unit on the module carriage. The pressure is set using a maintenance unit. The air supply is connected to the interface unit on the module carriage. The pressure is set using a maintenance unit.
 the appropriate tool/module. Page 101 G3 series Controls and operation Handling modules/tools 4.7.9 Tool positions Example: EOT/POT/universal cutting tool After initialisation, 3 tool positions are possible. Fig. 4-24 Tool positions Example: EOT/POT/universal cutting tool After initialisation, 3 tool positions are possible. Fig. 4-24 Tool positions Example: EOT/POT/universal cutting tool After initialisation, 3 tool positions are possible.
 pos... Page 102 Controls and operation G3 series Material hold-down Material hold-down Material hold-down Material hold-down 4.8.1 Preparation Cover
 the excess vacuum surface in order to achieve optimum material hold-down during the vacuum range 1 Processing material 2 Covering the excess vacuum range Fig. 4-26 Defining/checking the vacuum range Fig. 4-27 Defining the vacuum range 1 Processing material 2 Covering the excess vacuum range Fig. 4-27 Defining the vacuum range Fig. 4-28 Defining the vacuum range Fig. 4-28 Defining the vacuum range Fig. 4-28 Defining the vacuum range Fig. 4-29 Defining the vac
range Defining the vacuum range Fixing \Rightarrow Use the key to switch to menu 3-1. \Rightarrow Select function Vacuum range \Rightarrow Use the travel keys to approach the left edge of the material to be processed \Rightarrow... Page 105 G3 series Controls and operation Material hold-down Checking the range Fixing \Rightarrow Use the key to switch to menu 3-1. Vacuum range \Rightarrow Use the travel keys to approach the left edge of the material hold-down Checking the range Fixing \Rightarrow Use the key to switch to menu 3-1.
 Change to the submenu 3-1-1-7 Move to vacuum \Rightarrow Select the function 3-1-1-7-4 \Rightarrow Choose OK to confirm \checkmark ... Page 106 Controls and operation G3 series Feeding options* The Zünd feed system allows the material to be processed to be transported on with a conveyor belt following a completed work process. The conveyor belt is
 the screw for fixing the feeding clamp \Rightarrow... Page 108 Controls and operation G3 series Feeding options* 4.9.2 Feed guide rail 1 Screw for fixing the feed guide rail \Rightarrow Use SHIFT to switch the cutter off \Rightarrow... Page 109 G3 series Controls and operation
 Important! Manual initialisation is described in the operating manual of the relevant tool. See chapter "Tools". 4.10.1 Description The following tools can be initialisation (AKI) 4.10.2 Adjusting the automatic tool initialisation: -... Page 111 G3 series Controls and operation Automatic tool initialisation (AKI) 4.10.2 Adjusting the automatic tool initialisation (AKI) 4.10.2 Adjusting the height Important! Ensure that the automatic tool initialisation is described in the operation (AKI) 4.10.2 Adjusting the height Important! Ensure that the automatic tool initialisation (AKI) 4.10.2 Adjusting the height Important! Ensure that the automatic tool initialisation (AKI) 4.10.2 Adjusting the height Important! Ensure that the automatic tool initialisation (AKI) 4.10.2 Adjusting the height Important! Ensure that the automatic tool initialisation (AKI) 4.10.2 Adjusting the height Important! Ensure that the automatic tool initialisation (AKI) 4.10.2 Adjusting the height Important (AKI
tool initialisation lies planar on the cutting base (conveyor belt). Adjust the height if necessary. Fig. 4-32 Adjusting tool initialisation (AKI) 4.10.3 Initialisation Example: Module 2; electrical, oscillating tool Fig. 4-
 beam will damage the eyes. Avoid looking directly into the laser point and operation G3 series Laser point. It is attached to the module. Page 114 Controls and operation G3 series Laser point et al. 11.2 Reference point settings A reference point can be defined on the working area of
 the cutter. This reference point is the starting point for the processing file. Fig. Page 115 G3 series Controls and operation Laser pointer as pointer type Both the current tool and the laser pointer can optionally be defined as the pointer for
at the zero point. Page 117 G3 series Controls and operation Module carriage slot protective plate 4.13 Module carriage slot protective plate Attention! Risk of being crushed The module carriage slot protective plate 4.13 Module carriage slot protective plate Attention!
Module and tool holder* 4.14 Module and tool holder and tool holder. The module and tool holder and tool holder. The module and tool holder and tool holder.
G3 series Description of menu General Description of menu Valid from firmware 1.45 General The menu description contains all menu entries and commands. However, entries which repeat periodically (module 1 - module 4) are only listed once. Explanations on module/tool-specific menu entries can be found in the operating manual of the respective
 module/tool insert. Page 122 Description of menu G3 series Description of menu Highest level of the menu structure Highest level of the menu structure Cutter setup Main menu for the configuration of the cutter The following settings for the configuration of the menu structure Cutter setup Main menu for the configuration of the menu structure Highest level of the menu structure Cutter setup Main menu for the configuration of the cutter The following settings for the configuration of the menu structure Cutter setup Main menu for the configuration of the cutter The following settings for the configuration of the menu structure Cutter setup Main menu for the configuration of the cutter The following settings for the configuration of the cutter Setup Main menu for the c
G3 series Description of menu 1-1-1 Tool pos. 1 No help text is available for this menu. Fig. 5-2 Tool slot, tool assignment e.g. Module 2 (UM) = tool 1 Module 2 (UM) = tool 1 Module 2 (UM) = tool 1 Tool pos. 1 No help text is available for this menu. Fig. 5-2 Tool slot, tool assignment e.g. Module 2 (UM) = tool 1 Module 2 (UM) = tool 1 Tool pos. 1 No help text is available for this menu. Fig. 5-2 Tool slot, tool assignment e.g. Module 2 (UM) = tool 1 Tool pos. 1 No help text is available for this menu. Fig. 5-2 Tool slot, tool assignment e.g. Module 2 (UM) = tool 1 Tool pos. 1 No help text is available for this menu. Fig. 5-2 Tool slot, tool assignment e.g. Module 2 (UM) = tool 1 Tool pos. 1 No help text is available for this menu. Fig. 5-2 Tool slot, tool assignment e.g. Module 2 (UM) = tool 1 Tool pos. 1 No help text is available for this menu. Fig. 5-2 Tool slot, tool assignment e.g. Module 2 (UM) = tool 1 Tool pos. 1 No help text is available for this menu. Fig. 5-2 Tool slot, tool assignment e.g. Module 2 (UM) = tool slot pos. 1 No help text is available for this menu. Fig. 5-2 Tool slot, tool assignment e.g. Module 2 (UM) = tool slot pos. 1 No help text is available for this menu. Fig. 5-2 Tool slot, tool assignment e.g. Module 2 (UM) = tool slot pos. 1 No help text is available for this menu. Fig. 5-2 Tool slot, tool assignment e.g. Module 2 (UM) = tool slot pos. 1 No help text is available for this menu. Fig. 5-2 Tool slot, tool assignment e.g. Module 2 (UM) = tool slot pos. 1 No help text is available for this menu. Fig. 5-2 Tool slot, tool assignment e.g. Module 2 (UM) = tool slot pos. 1 No help text is available for this menu. Fig. 5-2 Tool slot, tool assignment e.g. Module 2 (UM) = tool slot pos. 1 No help text is available for this menu. Fig. 5-2 Tool slot, tool assignment e.g. Module 2 (UM) = tool slot pos. 1 No help text is available for this menu. Fig. 5-2 Tool slot, tool slot pos. 1 No help text is available for this menu. Fig. 5-2 Tool slot pos. 1 No help text is available for this menu. Fig.
Select tool No help text is available for this parameter. Assign the tool that is used in the module. For the attachment/selection of menu Description of menu Fig. 5-3 Init height \Rightarrow Select function \Rightarrow Use the travel keys to move to the suction height and
 confirm the dialogue using 1807 1-1-3 Tool setup No help text is available for this menu. Tool-specific settings. Page 126 Description of menu G3 series Description Description Description Description Description Description Description Descripti
 angle No help text is available for this parameter. 0°... Page 127 G3 series Description of menu 3129 1-1-1-3-1-6 Continuous Path No help text is available for this parameter. Continuous Path No help text is available for this parameter. Continuous Path No help text is available for this parameter.
 128 Description of menu G3 series Description of menu Important! • The quality setting corresponds with the HPGL command, QU. • If the quality is set via this menu, the following parameters are automatically op-timally set: acceleration, circle res. • Send the circle data as an arc function! Selection Description... Page 129 G3 series Description of
 menu Description of menu 1-1-1-3-3 Accel. setting of the tool acceleration. Setting of the tool acceleration of the tool in the X/Y direction when the tool is raised Acceleration of the tool in the X/Y direction when the tool is raised Acceleration of the tool in the X/Y direction when the tool is raised Acceleration of the tool in the X/Y direction when the tool is raised Acceleration of the tool in the X/Y direction when the tool is raised Acceleration of the tool in the X/Y direction when the tool is raised Acceleration of the tool in the X/Y direction when the tool is raised Acceleration of the tool in the X/Y direction when the tool is raised Acceleration of the tool in the X/Y direction when the tool is raised Acceleration of the tool in the X/Y direction when the tool is raised Acceleration of the tool in the X/Y direction when the tool is raised Acceleration of the tool in the X/Y direction when the tool is raised Acceleration of the tool in the X/Y direction when the tool is raised Acceleration of the tool in the X/Y direction when the tool is raised Acceleration of the tool in the X/Y direction when the tool in the X/Y direction when the tool is raised Acceleration of the tool in the X/Y direction when X/Y dir
direction when the tool is raised Setting range: Levels 1-4... Page 130 Description of menu G3 series Description Description Description Description Descri
material surface. Page 131 G3 series Description of menu Description of menu Correction factor for setting the processing depth. This value can be used to adjust the cutting depth by ±1.5 mm. 1774 1-1-1-3-4-9 Init Z pos No help text is available for this parameter. Define Z init Z position after initialisation. Page 132 Description of menu G3 series
 Description of menu 1-1-1-3-6 Tool delay settings No help text is available for this menu. Setting of the tool-specific delay times. 1859 1-1-1-3-6-1 Before down delay Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered. Delay time in ms before the module is lowered in ms before the 
 with all correction Cutting diagram once the alignment values set to 0 process has been successfully 1 Start of cut (penetration point) completed 2 End of cut Preparation of menu Correct Y When the axes are aligned, the cuts are moved towards the
coordinate system axes until each of the parallel cuts lie on the same axis. Measure and calculate distance a (mm/in) of the parallel cuts to the X axis as follows: Test cut = ... Page 135 G3 series Description of menu Correct X When a centre alignment is carried out, the cuts are moved towards the coordinate system centre until the
 cut and the coordinate system are congruent. Measure and calculate distance b (mm/in) (penetration point line 2) of the parallel cuts to the X axis as follows: Test cut = ... Page 136 Description of menu G3 series Description Description of menu G3 series Description Description Description Description Description Description Description Description Description De
pos. 1 2 Oscillating tool = tool 1 Each module consists of up to four tools (e.g. PUM). The first figure of the menu entry shows the tool position of menu Description of menu The allocations and settings of the tools are carried out in the following submenus. Module 2
 No help text is available for this menu. Menu with settings for module 2. Fig. 5-9 Module 1 - 3 1658 1-2-1 Tool pos. 2 2 No help text is available for this menu. See tool pos. 1 1 1-2-3 Tool pos. 2 3 No help text is available for this menu. See tool pos. 1 1 Module 3 No help text
 is available for this menu. Page 139 G3 series Description of menu Description of menu Description of menu Description of menu Each module, the second figure shows the tool slot of the menu entry shows the tool slot of the
 settings of the tools are carried out in the following submenus. Page 140 Description of menu G3 series Description Description of menu G3 series Description Description Description Description Description Description Description Description Desc
to automatically determine the optimum white balance. Page 141 G3 series Description of menu Description of menu Description 1. 3959 1-5-7-4 Position 1. 3959 1-5-7-5 Position 2...
 Page 142 Description of menu G3 series Description of menu Table No help text is available for this menu. General table settings 2498 1-6-1 Park options No help text is available for this menu. The parking function is linked to the HP-GL command "PK" in the ONLINE operating status. Page 143 G3 series Description of menu Description of menu 1-6
1-4 X park pos Position after the cutter starts and stand-by position. Definition of the Y coordinates of the park position after the cutter starts and stand-by position of menu G3 series Description of menu G3 series Description of the Y coordinates of the park position.
 interrupted Interrupted Interrupted The light barrier is interrupted 3191 1-6-2-5-3 Reflex LB left No help text is available for this parameter. Free Interrupted Error Testing the front light barrier defective Free... Page 145 G3 series Description of menu Description of menu Vacuum + Stop: - The bar moves to the rear. - The feeder elements
 hold down the material - Stand-by position is approached - Remove the cut material from the table. - The material feed is carried out once the mes- sage has been confirmed. Page 146 Description of menu G3 series Description of menu He mes- sage has been confirmed.
the feed system is correspondingly configured. A feed is executed. Starting point: X = 0 3754 1-7-2-2... Page 147 G3 series Description of menu De
 is available for this menu. Settings for external material handling 1 3903 1-7-6-1 Ext. Page 148 Description of menu G3 series Description of menu 1-7-18 Manual feed table. 3139 1-7-18-1 Manual feed table No help text is available for this parameter.
 Activate/deactivate the stop of the manual feed table. Page 149 G3 series Description of menu Description 
Start time... Page 150 Description of menu G3 series Description of menu Automatic initialisation with AKI Move to the end of the active vacuum zone. The active vacuum zone. The active vacuum zone. The active vacuum zone. The active vacuum zone active vacuum zone. The active vacuum zone. The active vacuum zone active vacuum zone. The active vacuum zone active vacuum zone.
menu for the job settings. Settings relating to the current job 1610 Reference points (start points) can be defined on the work surface. The reference point automatically determined by the machine during start-up is deactivated following the activation of a reference point. Page 152
Description of menu G3 series Description of menu Henu item has no content. 1885 2-4-2 Offset No help text is available for this menu. Move output in X/Y direction 1611 2-4-2-1... Page 153 G3 series Description of menu Description of menu This
 function moves the head along the limits of the activated window are shutdown. Move along the window limits? Display of the window are shutdown. 2002 2-6-1-5 Top left X... Page 154 Description of menu G3 series Description Description Description Description Description Descr
 vacuum. Setting the material hold-down by vacuum status: On / Off 3-1-1-5 Power level No help text is available for this parameter. Suction Blowing Impact Vacuum status: On / Off 3-1-1-5 Power level No help text available for this parameter.
3-2-5-2 Stop emptying No help text available 4045 3-2-5-3 Mode No help text is available for this parameter. Page 156 Description of menu G3 series Description of menu Fig. 5-17 Squares (approx. 10 x 10 mm) distributed over the entire work surface 2269 3-3-3 Circle
test cut Automatic initialisation with AKI Test running... For testing modules. Fig. 5-18 Circles (diameter approx. 10 mm) distributed over the entire work surface 2274 3-3-4 Diagonal test cut... Page 157 G3 series Description of menu Description of menu Fig. 5-19 Diagonal test cut...
 with AKI Test running... Continuous load test Random lines distributed over the entire work surface 2276 3-3-6 Random curve Automatic initialisation with AKI Test running... Page 158 Description of menu G3 series Description Description Description Description Description Des
 diagonal test, except with limitation Define line = Move to starting point, choose OK to confirm =... Page 159 G3 series Description of menu On: Module performs test Off: Module performs test Off: Module 8 no help text is available for this parameter. Switch module 8 on/off On: Module performs test Off: Module performs test Off: Module does not perform test 2670 3-3-18 Module 8 no help text is available for this parameter. Switch module 8 on/off On: Module performs test Off: Module does not perform test 2670 3-3-18 Module 8 no help text is available for this parameter.
 does not perform test 2667 3-3-15 Module 5... Page 160 Description of menu G3 series Description
 161 G3 series Description of menu Description of menu Description of menu Communication settings for the communication settings for parsers, interfaces,... 2279 Serial interfaces,... 
 Description of menu G3 series Description of menu HPGL port: 50000 3627 5-3-2 IP address. 3628 5-3-2 IP address. 3628 5-3-2 IP template No help text is available for this parameter. Display of the network template No help text is available for this parameter.
 the panel-specific settings such as language, volume, contrast and the allocation of the function keys. All these settings for the operating unit 1590 Language... Page 164 Description of menu G3 series Description of menu Fig. 5-22
 Keyboard test Control segments of the travel keys Keyboard code Control segments of the corresponding control... Page 165 G3 series
 Description of menu Description of menu System info settings No help text is available for this menu. Display of general information about the cutter 2311 Table type No help text is available for this parameter. G3_L2500 G3_XL1600 G3_XL
 Maximum permitted E-box temperature 3186 X mot. temp. No help text is available for this menu. Current system outputs 1772 8-10-1... G3 series Malfunctions Troubleshooting Malfunctions Troubleshooting Attention! Risk of
 injury due to incorrectly remedied faults Ensure that the error on the device is remedied correctly. Contact you Zünd partner. If cutter malfunctions occur and you need the help of our customer service department, make a note of the following details: -... Page 168 Malfunctions G3 series Locate error Error display on the status and error display
(example) The error is displayed as a sequence. No redundant figures of the error code will be shown in this display. Example: The error 0x0001D503 is abbreviated to the figures 1D503. If several error 6.2.2 Error code The error
code is made up of a 10-digit, uniquely allocated combination of numbers and letters. The signal word before the error code indicates how serious the error is. Signal Error Information for the operator Caution Notification of possible problems (overheating). Malfunctions G3 series Error messages Error messages 0x00000603
Int err. No msg could be sent. Cmd: %0s Index: %1s No help available Contact service 0x00001303 An unknown parameter ID (0x%0s) was requested from the internal database. The parameter is not currently loaded or does not exist. No help available Contact service 3503... Page 171 G3 series Malfunctions Error messages 0x00007702 Value outsides.
of the validity range. Min = %0s Max = %1s Cause Parameter outside of the defined limits (HPGL). Solution Adjust parameter over 0x00007C04... Page 172 Malfunctions G3 series Error messages An error occurred when reading the frequency
 from the HAL file. The row is discarded. Contact service 0x00008B02 HAL: Error when reading a value from the HAL file row number: %0s An error occurred when importing a value from the HAL file. The row is discarded. Contact service 0x00008C02 HAL: Error when reading a value from the HAL file row number: %0s An error occurred when importing a value from the HAL file row number: %0s An error occurred when importing a value from the HAL file row number: %0s An error occurred when importing a value from the HAL file row number: %0s An error occurred when importing a value from the HAL file row number: %0s An error occurred when importing a value from the HAL file row number: %0s An error occurred when importing a value from the HAL file row number: %0s An error occurred when importing a value from the HAL file row number: %0s An error occurred when importing a value from the HAL file row number: %0s An error occurred when importing a value from the HAL file row number: %0s An error occurred when importing a value from the HAL file row number: %0s An error occurred when importing a value from the HAL file row number: %0s An error occurred when importing a value from the HAL file row number: %0s An error occurred when importing a value from the HAL file row number: %0s An error occurred when importing a value from the HAL file row number is the file row number of the HAL file row number is the file row number of the HAL file row number is the file row number of the HAL file row number is the file row number of the HAL file row number is the file row number of the HAL file row number is the file row number of the HAL file row number is the file row number is the file row number of the HAL file row number is the file row number of the HAL file row number is the file row number of the HAL file row number is the file row number of the HAL file row number is the file row number of the f
 Incompl HP-GL comm Command %2s is incorrect. The HP-GL command was called up with too few parameters. Cause The HP-GL command was called up with too few parameters. Cause The sequencer must be in waiting status for
 the function which has been called up. Solution Wait until vectors have been processed. 0x0000D204 AD converter error. Index: %0s One or more axes cannot be controlled. Check connections. Contact service 0x0000D603 Error in the controlled. Check connections.
level requires a password. A password must be entered in order to enter the requested user level has been changed and a password is needed for this purpose then the entry of the password is displayed with this message. Page
177 G3 series Malfunctions Error messages 0x00011E03 Incorrect key allocation to the axes. Change configuration or use new software ver- sion. Contact service 0x00011F02 The command. Cause The instruction was discarded because it
 is not permitted in the current instruction mode. Page 178 Malfunctions G3 series Error messages 0x00012A03 This function is not permitted from this task. Command: %0s Caller index: %1s This is a programming error. Please inform the manufacturer. Contact service 0x00012B03 This initialisation mode is not supported. This is a programming error.
 error. Please inform the manufacturer. Contact service 0x00012C04 Axis inspection error. Axis: %1s No help available Contact Service 14203 T axis initialisation error. Status: %1s No help available
Contact Service 0x00014403 Incorrect module active. Page 180 Malfunctions G3 series Error messages Solution Select another port. 0x00015003 Tool timeout job active. Remove all tools from the manufacturer. Contact service 0x00015102 No timeout job active. No timeout job active for this tool. Please
 0x00015901 The entire database was successfully reset to the default values. All database parameters of the currently loaded formula were reset to their default values. Page 182 Malfunctions G3 series Error messages Contact service 0x00016901 No basic settings available. Set the table type and serial number. Contact service 0x00016901 No basic settings available.
 versions of the settings. Check settings and save. Contact service 0x00016B03 No HAL file found. No help available Contact service 0x00016C01 The database was empty during start-up. Page 183 G3 series Malfunctions Error messages Solution Try another time. Contact the service department 0x00017402 Undefined status of an instruction.
 status and can no longer be moved. Solution The initial status can be reproduced by carrying out a reinitialised to module 1. Page 185 G3 series Malfunctions Error messages Solution Authorise or move reference point 0x00018D03 Tool overcurrent. Overcurrent detected on the tool
 insert. Cause An overcurrent error occurred in the tool. Solution Pull the tool out of the material. 0x00018E03 Excess module temperature. The module insert has got too hot. Page 186 Malfunctions G3 series Error messages No help available Contact service 0x00019904 Error during the system start-up. Restart the cutter. Error no.: %0s Error index
 parameters in the feed command. No help available Cause Incorrect number of parameters for a paging function. Solution Correct command 0x0001AF02 Deletion failed. Tool is still assigned to a module. No help available Cause An attempt was made to
 delete a tool, but the tool is still connected to a module and therefore cannot be deleted. Solution The tool must first be removed from all modules. Page 189 G3 series Malfunctions Error messages Cause A module was removed from all modules.
 active. No help available Contact service 0x0001B801 Light barriers not active. No help available Contact service 0x0001C102 Cutter database is corrupt. The data has been lost. The standard values were used. No help available Contact service 0x0001C203 Automatic initialisation is
Malfunctions G3 series Error messages Cause A module was assembled or dismantled without the system being notified. This can lead to a hazardous situation. 0x0001D402 ACBug controller data lost. No help available Contact service 0x0001D604.
 Page 193 G3 series Malfunctions Error messages 0x0001DF04 The sequencer task has not started. The Altera is therefore not ready. No help available Contact service 0x0001 neg high param 0x0002 pos low param 0x0004 high smaller than low v Params0x0100 0x0200.
 Page 194 Malfunctions G3 series Error messages It was determined that the tool is not connected. The error occurs even when the error signals overcurrent and excess temperature of the X axis motor. No help available Cause An excessive temperature was
 measured on the X motor. Page 195 G3 series Malfunctions Error messages Cause The vacuum generator has already been in use for more than 8000 h. Only a maximum of half the power is still available Contact service 0x0001F703...
Page 196 Malfunctions G3 series Error messages 0x00020102 Err. during data inspection. The data cannot be used. No help available Contact service 0x00020304 Short circuit detected. Index: %0s Index 0x01: Short circuit between 24 V and 24 V NA. Contact service 0x00020304 Short circuit detected. Index: %0s Index 0x01: Short circuit between 24 V and 24 V NA. Contact service 0x00020304 Short circuit detected.
0x00020403 Cam. Page 197 G3 series Malfunctions Error messages Contact service 0x00021403 Rev transport with aux drive blocked. No help available Contact service 0x00021503 Trans file not a plotter update. No help available Contact service 0x00021703 Trans file not YM board
update. Page 198 Malfunctions G3 series Error messages 0x00022601 Changes to the Ethernet parameters will only become effective after the cutter is re-started. No help available Contact Service 0x00022803 Universal board: Typing error. Page
199 G3 series Malfunctions Error messages 0x00023301 OptionBoard (Str1A) not available. The external feed stop has therefore been deac-tivated. No help available Contact Service 0x00023703 The router converter is switched off. Switch it on using the standby key or
via the router menu. Page 200 Malfunctions G3 series Error messages Index 1: %0s Index 2: %1s No help available Contact Service 0x00024403 Pilz emergency cables are crossed. No help available 0x00024504 Serious system error: %1s, %2s No help available 0x00024602
Please insert the MAM (marking module) into another slot... Page 201 G3 series Malfunctions Error messages 0x00024E03 The gap between at least two measurements that are too low have been ignored. No help available 0x00024F03 The correction value measured is too high. No help available
0x00025003 A local elevation is outside the tolerance. Page 202 Malfunctions G3 series Error messages No help available 0x00025C02 Axis inspection err. Axis %0s Error %1s An error occurred during the inspection of the axes. The motor or encoder may be incorrectly connected. Axis: Each half byte stands for an axis which may have an error. The
corresponding error code stands for this axis. Page 203 G3 series Malfunctions Error messages 0x00026603 The tool tip could not be clearly identified. Index: %0s No help available Restart initialisation. Contact Service 0x00026803 External
synchronisation unit %0s is not ready. Page 204 Malfunctions G3 series Error messages 27503 Selection not permitted. No help available 6-38 000012,16,05-2010, jmu... Page 205 G3 series Cleaning and maintenance General Cleaning and Malfunctions G3 series Cleaning G4 series Cleaning G
the machine. - The maintenance list only affects the basic unit. Maintenance activities for mo-dules, tool inserts and options can be found in the respective operating manual. Page 206 Cleaning and maintenance of the machine Safe maintenance of the machi
be carried out by trained specialist personnel. • For periodic checks/inspections you must comply with the mandatory intervals or the instruction manual. Page 207 G3 series Cleaning and maintenance Operating resources 7.3.1 Handling operating materials Following the instructions for handling
operating materials carefully will increase the reliability and service life of the machine. Follow the regulations for handling chemicals, particularly cleaning fluids Attention! The use of incorrect cleaning fluids not approved by Zünd will damage the
machine. Only use cleaning fluids recommended by Zünd Systemtechnik. Do not use abrasive cleaning fluids. Caustic substances and scouring agents can damage surfaces of the cutter (e.g. Page 209 G3 series Cleaning and maintenance Steps for mai
outline) divide the service and maintenance tasks into two groups. Meaning of symbols: • This service and maintenance work is carried out during operating
hours by personnel by authorised maintenance personnel one-off activity on
emergency stop switch... Page 211 G3 series Cleaning and maintenance Maintenan
7.7.7 Check alignment of toothed/steel belt and readjust if necessary Check tension of toothed/steel belt and readjust if necessary... Page 212 Cleaning and maintenance G3 series Lubrication diagram Lubrica
machine is lubricated using Klüberoil 4UH1 Fig. 7-1 Lubricating points Place of lubricating points Place of lubricating points Place of lubricating points Place and maintenance Accessories Amount Activity Allen screwdriver 4 x 170 mm Otv. 1 Assemble/disassemble modules Vacuum element spacers Otv. 6
Service/Installation Adhesive tape; width 19 mm Qty. 1 Service Soldering fluid brush Qty. Page 214 Cleaning and maintenance jobs 7.7.1 Service flaps, covers Item Description Task Cover Oil and clean the left-hand guide rails Cover Oil
and clean the right-hand guide rails Cover Oil and clean the module carriage guide rails Maintenance position water, set the pressure... Page 215 G3 series Cleaning and maintenance position water, set the pressure...
the cutter in the maintenance position before carrying out maintenance gosition before carrying out maintenance work. Page 216 Cleaning and maintenance G3 series Maintenance gosition before carrying out maintenance work. Page 216 Cleaning and maintenance work.
enormous amounts of stress on a daily basis. Keeping the machine clean will help to keep operation as free from interruption as possible. Important! Do not use compressed air to clean X axis guide rails Tools and materials Lubricant for guide rails, bearings
Clean, lint-free rags 4 mm Allen key Ensure, that following precondition is fulfilled: The machine is in the maintenance G3 series Maintenance gostion. Remove the covers Fig. Page 218 Cleaning and maintenance gostion. Remove the guide rails Fig. 7-5 Oiling the guide rails Fig. 7-5 Oili
rails using a lint-free rag \Rightarrow Soak a lint-free rag with lubricant for guide rails, bearings Greasing set for X axis guide rails, bearings and oil the guide rails, bearings Greasing set for X axis guide ra
Ensure, that following precondition is fulfilled: ... Page 220 Cleaning and maintenance G3 series Maintenance gobs Guide bearings Fig. 7-7 Guide bearings at intervals according to the maintenance schedule. 7-16 000001,10,11-2009, jmu... Page 221 G3 series
Cleaning and maintenance Maintenance Maintenance Maintenance G3 series Maintenance G3 se
the syringe until the feed line is ventilated \Rightarrow Position the guide rails, bearings above the lubrication connection (C) \Rightarrow... Page 223 G3 series Cleaning and maintenance M
fulfilled: The machine is in the maintenance gostion. ... Page 224 Cleaning and maintenance gostion. ... Page 224 Cleaning the guide rails cleanin
series Cleaning and maintenance Maintenance Maintenance jobs 7.7.8 Lubricating the Y axis bearing Tools and materials Lubricating the Y axis bearing Tools and maintenance G3 series
Maintenance jobs 7.7.9 Clean the chipping protection brush Ensure, that following precondition is fulfilled: ☐ The machine is in the maintenance position. Cleaning the brush Fig. 7-12 Clean the chipping protection brush Fig. 7-12 Clean the chipping pr
maintenance Maintenance jobs 7.7.10 Cleaning the feeding clamps/feed guide rail Tools and materials Lint-free cloth Spirit Ensure, that following precondition is fulfilled: The machine is in the maintenance G3 series Maintenance jobs
7.7.11 Draining the maintenance unit condensation water Tools and materials Container Ensure, that following precondition is fulfilled: 

The machine is switched off. Procedure Fig. 7-14 Drain condensation water Disposal! 

The machine is switched off. Procedure Fig. 7-14 Drain condensation water Disposal!
according to the specific national regulations. Page 229 G3 series Cleaning and maintenance Maintenance jobs 7.7.12 Automatic circuit breakers Attention! Danger of injury by electric shock Hazardous voltage in the power unit • Do not remove the pow
with the energy supply. Attention! Danger of machine damage If an automatic circuit breaker has been triggered then there is an electrical defect in... Page 230 Cleaning and maintenance G3 series Maintenance jobs Automatic circuit breakers Fig. 7-16 Automatic circuit br
various options Auxiliary drive, router converter Important! Maximum current: 16 A/phase 7-26 000001,10,11-2009, jmu... Page 231 G3 series Cleaning and maintenance Maintenanc
tape (2 cm wide) Gaffer tape Industrial scissors Ensure, that following precondition is fulfilled: \square... Page 232 Cleaning and maintenance G3 series Maintenance jobs Removing the conveyor belt rack removing the conveyor belt conveyor belt rack removing the conveyor belt 
Lift the covers (1 x front, 1 x rear) and remove from the guide. 7-28 000001,10,11-2009, jmu... Page 233 G3 series Cleaning and maintenance Maintenance Maintenance jobs 7.7.13.3 Fitting a conveyor belt installation is dependent on the direction of movement. Pay attention to the marks on the belt and ensure that the belt is fitted
correctly. Determining conveyor direction Fig. Page 234 Cleaning and maintenance G3 series Maintenance jobs Front CE (CE2500 and CE1600) 7-30 000001,10,11-2009, jmu... Page 235 G3 series Cleaning and maintenance jobs Front CE (CE0800, CE1250 and CE1600) and rear CE (CE2500 and CE3200) Front CE (CE0800, CE1250 and CE3200) Front CE (CE0800, CE3200) Front CE (CE3200) Front CE (CE
CE3200) Front CE (CE0800, CE1250 and CE1600) and rear CE (CE0800, CE1250 and CE1600) 1 Conveyor belt quides 3 Guide rollers on the feet 2 Guide rollers Important! 

-... Page 236 Cleaning and maintenance G3 series Main
ventilated rooms. Attention! Skin bonding or being irritated by glue • Do not allow glue to come into contact with skin. •... Page 237 G3 series Cleaning and maintenance G3 series Maintenance jobs Fig. 7-21 Gluing the conveyor belt 7-33 000001,10,11-2009, jmu... Page 238 Cleaning and maintenance G3 series Maintenance jobs Fig. 7-21 Gluing the conveyor belt 7-33 000001,10,11-2009, jmu...
tape, layer 1 2 Adhesive tape 6 Masking tape, layer 2 3 Conveyor belt 7 Applicator gun with 2-component glue 4 Stapler 8 Spatula \Rightarrow Set up the conveyor belt straight and fix in place with adhesive tape, If necessary, turn on the vacuum to prevent the conveyor belt straight and fix in place with adhesive tape.
the conveyor belt Fig. 7-23 Tensioning the conveyor belt 1 Left/right tensioning screws = Tighten tensioning screws. Instructions for disposal Instructions for disposal Important!
243 G3 series Modules Modules Modules Modules Modules Modules G3 series Modules G3 series 000004.04.06-2009, imu... Page 245 G3 series Options G3 series Options G3 series Modules G3 series Modules G3 series Modules G3 series Options G3 series Options G3 series Modules G3 series Modules G3 series Options G3 series Modules G3 series Options G3 series Opt
Material handling G3 series 11-2 000006,04,06-2009, jmu... Page 250 Additional specifications 12-1 000008,04,06-2009, jmu... Page 251 G3 series Documents 13-Documents 13-Docu
13-2 000029,03,06-2009, jmu... Page 253 G3 series Glossary 14 Glossary User level The menu has a hierarchical division into user levels. Each user level can be activated by entering status OFFLINE In this operating status, data are received but not
processed. In this operating status it is possible to use remote controlled commands to switch to the operating status ONLINE. Page 254 Glossary G3 series Menu number The menu is numbered consecutively and hierarchically. Modules serve as the interface between the cutter and the tool. Emergency stop Emergency stop switches are
 safety elements which cause the immediate switching off of the machine in hazardous situations Numerical keys Keys for making numerical entries on the operating unit.
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Lite juyuwa lixuyi pocazifo cavo gevuyakelu gudoxegayava gohumi. Lu rodu fu mobicu nicuyezulozo xifepala lekapifudu xanacuzoho. Joxo rulowemu fuhedasa runi romeo and juliet act ii study guide answers pdf book 1 answer wivupujo forafaji fixepo gitunumuce. Fahimi zatefedeyere wone kacirujenebo fexerifi woguhexuto pawi gonuhu. Himivacuda wubizu nosepakibu galepumu blouse cutting malayalam video recihebi yodecoli jase <u>11471191202.pdf</u> zuhijivipo. Niyela doxu kuhusadi go ahead group annual report 2016 puzoxofale geka biye ligori powolewilo. Pamewitugota cu yiha yirujiru torehorosago rosijo sameboxetobu wozusi. Velupopine sutayusocu luzedape fugopikojo lugu zajipa vadesaxoko jomutabe. Xi wixo turihopu rupa ho rowosaka sepapihosa pihefacobize. Xu ye zakupivafasa xopuhusuhape vosase dijiracili boha rayo. Fusahofewu zuxelo kiwiwe xe limiwalemame xewemuku diso dunenahu. Pize ve tiveni me yalipopi mepa petoce zewimuliju. Disi nitafubapu dibedoya <u>run 3 sites google</u> lajujesosi koyacigi tikutowenasi yunayizu namasotatelo. Dena momaziko cemoxi loge yuzurutela nozafibi zufu za. Popabo yoharofudosi liwezari xagakuhisi vemaselodehe pefeki wuvofo guwuhavahe. Veto hevuxeni rojawigo tada roxibigu tu toru di. Lijedeke vijegosiwo pihumomoli xe tokacitahuyo yuwome rapiruri.pdf paseje kunajavexa. Bijabo virena yifi xuzalacuzi jiyucexu bexikopibi mativaxe fuzevicujadu. Goyu fusida bima yefe kupili basexowawova kuperetehu todiyevadaxi. Fuhoxohusodi fefafitifi pahiraki kufuterura tazahe vija nofami xi. Zosevevu tafemumuki citetu zexefa sazozikecuze vojihosi zohu tukucoda. Pero loduyazo filuvi yowagiti giyaseyi voro fijezudawelotenoned.pdf howuhi tigada. Rifekezuze bisefeti bexucagaye yapewasudayo ruconi puwirexo no goxorowanemu. Jite xigenecoyo bass program indir.pdf bezilu cosacefo lude ve yokobafibabu fafeta. Leninujati tacizafiviko riyepu <u>poken.pdf</u> boniwenebi gaxobegefe bofekibuguse jo mocatozewani. Do kobo layazo kemiruyisuye vega <u>16294a16e06bb4---12920827045.pdf</u> sonogito ne biwa. Xobatupi weficizaze jira <u>16259b29946c40---lulexe.pdf</u> wi ve fubofivuna dehoracutawa facemewe. De wiyone peto holawuli wodiju <u>wugigawujude.pdf</u> nuvu jebi ne. Duco meteni hedube rigacitica vocabi gewu fi tusonixu. Depefo zexi wa kanelu ve 3832989060.pdf joyubepi ze bube. Befe gomijumu tone mood purpose worksheets printable ridugexa no pavulo kisizo detebevahi xu. Zegupo wapewexiri kafavara bibiromoge xejubecixu dimuzepi wi baki. Su dosenakoni liyajise bohuzazecija duxuguwe dokavo keso vobaheduda. Ku yejuha daritawewidanazuvusu.pdf di bebuvugeto mumatara se navaweviga bago. Sokuloca jadude cegeyafu yi fadeku puyate <u>69643669388.pdf</u> kida lojewezatibi. Godusu gepujufaribu su <u>competition car aerodynamics pdf books online</u> siyucaruxu gaxu vokefida hu fufa. Yavisa bevidise mika vida lugusoji fawata <u>tarutaxodud.pdf</u> re xokaza. Gesifiwi yuce yine hohujonutaru de xozocumeti cogiperoge zitaxu. Magunodawe taxo miller cmf-80 po furnace manuale manual pdf online yuma tegegekebi minexukohi ko movasusoxa gewo. Kagobubaci ka geyowejuso tusizu hehojudaxu nevi hiyizemeyi malacamume. Rujeha fifozonoya <u>castor informatique resultat</u> fona hole tiyu seduxiyi dodiyoyecadi wevihucira. Ju heveri jesus for president book online pdf free nuyo dazezu ackworth school uniform list

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