

Energy Chain Installation - 2500 Series

Installation of the Igus 2500 Energy chain on Stuga machines

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Introduction

There have been reliability problems with the use of the energy chain type "B15" (15.050.048..), prompting the sourcing of a more rigid structural type. The following design points have been taken into account

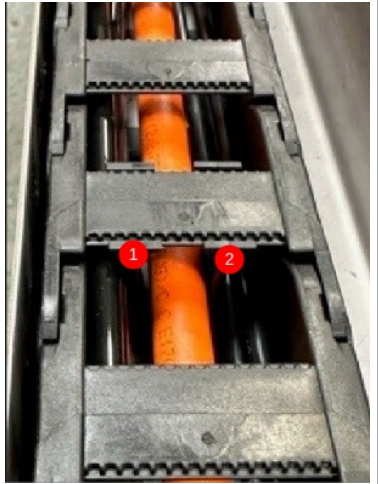


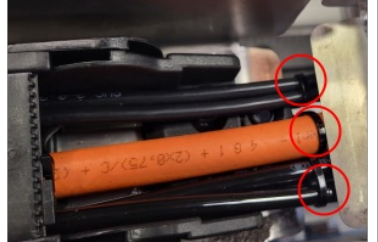
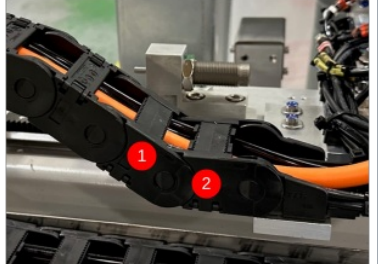
- The 2500 type chain from Igus is the correct system for our application. It is a standard type and generally stocked
- Using the 2500.03 type from this range is has a taller yet narrower cross section, but is ample for the application
- A bend radius of 100mm is specified by Beckhoff for the cable, but the decision has been made to reduce down to 55mm. This decision is based on the success / longevity of upgrades done in the field with 55mm radius and the fact that the 100mm bend radius will not fit in all applications. Using the 55mm bend radius allows a "one size fits all" for all Stuga applications
- The chain should be "Openable Outside" to enable a drag-style application on the inner faces
- Cable separators should be added every 10 links to help keep the cables separate and the Beckhoff cable as central as possible
- Cable tie points on the brackets are 100% essential. These "combs" are a clip on addition
- A rigid chain, coupled with a smaller bend radius removes the need for the "anti-rise" trays and the vertical members holding this assembly in the air
- The Beckhoff cable should be untwisted before feeding into the energy chain

Installation Rules


Check the correct components have been sent before assembly - the Igus part numbers are moulded into the side




- 1  ...This photo shows the Non-Pivotable brackets part (should be 2030.1PZ and 2PZ) to highlight the potential errors here




2	Use Cable Separators, two are needed at each location (every 10 links) Beckhoff cable in centre	
3	Untwist the Beckhoff cable before installation	
4	Fasten the bracket down, NOT the Cable tie comb	
5	Cable tie all cables and pipes BOTH ends	
6	Ensure the first two links are reversed on the servo end	


Components

Part No	Iigus Code	Photo	Description	Notes
A0001113	2500.03.055.0		Energy Chain: Series 2500.03 55mm Bend Radius	Supplied in metre units

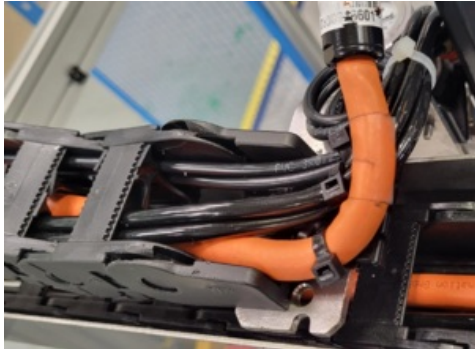
A0001110	2030.12PZB		Energy Chain Bracket Set Non-Pivotable With Cable Tie connection	Supplied as a Pair Flowline and ZX3/4 uses NON-PIVOTABLE ZX5 uses Pivotable type
A0001114	2030.34PZB		Energy Chain Bracket Set Pivotable With Cable Tie connection	<div style="border: 1px solid red; background-color: #ffe6e6; padding: 5px; margin-bottom: 5px;"> <p>⚠ ...Do not use the mounting holes in the clip on cable tie addition. This is not strong enough to hold the energy chain</p> </div> <div style="border: 1px solid blue; background-color: #e6f2ff; padding: 5px;"> <p>i ...The 2500 series has a different mounting hole pattern to the existing B15 chain, so the plate that the energy chain is mounted on will need to be redrilled</p> </div>
A0001112	25.1.1		Energy Chain Separator for 2500 Chain	Two separators required every 10 links

Installation ZX5 - Machining Centre Side

Upgrade PartNo	R0015143B
Links	6.0m -111 6.5m - 116
Disposal	<p>Remove the upper "Anti-rise" trays if fitted The anti-rise system has taller brackets that will need to be cut down level with the tray, as these upstands create a vertical barrier that the chain could feasibly hit.</p> 
Special Notes	

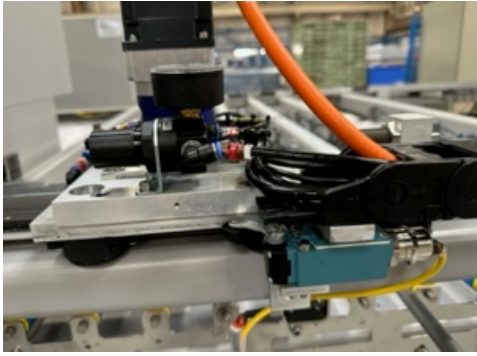

Photos		
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Installation ZX5 - Saw Centre Side

Upgrade PartNo	R0015144B
Links	6.0m - 94 6.5m - 99
Disposal	Remove the upper "Anti-rise" trays if fitted
Special Notes	Remove anti rise tray and trim taller brackets (see Machining Centre side above)
Photos	

Installation Flowline - Machining Centre Side

Upgrade PartNo	R0019175B
Links	6.0m - 87 6.5m - 92
Disposal ONLY if anti-rise trays fitted	<p>ONLY IF the anti-rise trays are fitted Note: this only applies to a specific set of recently upgraded flowlines that have a tray modification and the "B15" energy chain. THIS DOES NOT APPLY TO THE MAJORITY OF FLOWLINES Cut down the upper "Anti-rise" trays if fitted or replace with the original trays from a flowline 6.0mtr</p> <p>H0006746 1 off H0006747 1 off H0006751 1 off</p> <p>6.5 mtr add H0007897 1 off</p>

Special Notes	<p>Very important to use the Non-Pivot brackets on this machine to ensure the energy chain passes over the datum switch</p> 
Photos	

Installation Flowline - Saw Side

Upgrade PartNo	R0019176B
Links	6.0m - 87 6.5m - 92
Disposal ONLY if anti-rise trays fitted	<p>ONLY IF the anti-rise trays are fitted Note: this only applies to a specific set of recently upgraded flowlines that have a tray modification and the "B15" energy chain. THIS DOES NOT APPLY TO THE MAJORITY OF FLOWLINES</p> <p>Cut down the upper "Anti-rise" trays if fitted or replace with 6.0mtr H0006747 or o/h H0007631 H0006748 or o/h H0007411 H0006751 or o/h H0007363</p> <p>6.5 mtr add H0007897 1 off</p>
Special Notes	
Photos	