

**ANALYSIS OF MOTOR SPEED EFFECT ON WINDING TENSION
IN THE WIND UP CALENDERING PROCESS**

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

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The winding process is widely used in manufacturing industries. For the high speed winding, the center winding method is used. Irregular internal stresses at the center of the roll result in major weaknesses such as buckling, spoking and cinching. Therefore, entanglement with the right tension is very important to get a stable wound package.

It should be mentioned that winders usually operate based on the principle of precision winding. A typical characteristic of winders is increasing the surface speed as the diameter increases. This will cause the winding to increase which has the potential to cause damage.

To overcome damage due to an increase in roll tension, the rolling motor speed must decrease so that the roll tension remains the same or even decreases. And because the rolling process uses additional media in the form of a liner fabric which is tension controlled with pneumatic disc brake, the pressure brake must also be made taper.

Keywords: Winding, Diameter, Tension, Speed

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DEDICATION

I dedicate this works for my parents, my Family
And for my Faculty I loved, Faculty of Engineering & Information Technology in
Swiss German University

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TABLE OF CONTENTS

	Page
COVER.....	1
STATEMENT BY THE AUTHOR.....	2
ABSTRACT.....	3
DEDICATION.....	5
ACKNOWLEDGEMENTS.....	6
TABLE OF CONTENTS.....	7
LIST OF FIGURES.....	9
LIST OF TABLES.....	10
CHAPTER 1 - INTRODUCTION.....	11
1.1 Background.....	11
1.2 Research Problem.....	11
1.3 Research Objectives.....	12
1.4 Significant of Study.....	12
1.5 Research Question.....	12
1.6 Hypothesis.....	12
CHAPTER 2 - LITERATURE REVIEW.....	13
2.1 Calendering Process.....	13
2.2 Motion Speed.....	14
2.3 Winding Concepts.....	15
2.4 Brake System.....	22
2.5 Programmable Logic Controller (PLC).....	23
2.6 Servo Motor.....	24
2.7 Real Time Operating System (RTOS).....	25
2.8 Previous Studies.....	26
CHAPTER 3 - RESEARCH METHODS.....	27
3.1 Research Framework.....	27
3.2 Material and Equipment.....	27
3.3 Design of control scheme.....	29
3.4 Design of Experiment.....	30
CHAPTER 4 - RESULTS AND DISCUSSIONS.....	32
4.1 Mathematical Models for Winding.....	33
4.2 Proposed taper tension control.....	34

4.3 Evaluation taper tension	39
4.4 Evaluation taper brake on liner.....	40
CHAPTER 5 - CONCLUSIONS AND RECCOMENDATIONS.....	44
5.1 Conclusions	44
5.2 Recommendations	44
GLOSSARY	46
REFERENCES	48
APPENDICES A.1– Calculation diameter and angular velocity	49
APPENDICES A.2– Program code	55
CURRICULUM VITAE	58

LIST OF FIGURES

Figure	Page
Figure 2-1 Calendering Machine [www.maxcessintl.com]	14
Figure 2-2 Center Winding	16
Figure 2-3 Single Roller Surface Winding	16
Figure 2-4 Single Roller Surface Winding	17
Figure 2-5 Twin Roller Surface Winding with input from outside.....	18
Figure 2-6 Twin Roller Surface Winding with input from inside.....	19
Figure 2-7 Geometry of yarn traverse and Geometry of winding Triangle.....	21
Figure 2-8 PLC Component [https://www.laxmiind.org/plc-control-panel/]	23
Figure 3-1 Methodology Research.....	27
Figure 3-2 Arduino MEGA 2560.....	28
Figure 3-3 Encoder sensor	29
Figure 3-4 Ilustration of stretching in the wind up.	29
Figure 3-5 Principle of control system.....	30
Figure 4-1. Angular velocity treatment and diameter roll	32
Figure 4-2. Schematic of a center-wound roll.....	33
Figure 4-3. Uneven stress distribution in the direction of the crossing machine and the wrapping angle.....	36
Figure 4-4. Boundary condition in a span.....	36
Figure 4-5. Winding treatment method.....	40
Figure 4-6. Chart of pressure brake for liner roll.....	41
Figure 4-7. Relationship between liner speed and diameter	41
Figure 4-8. Fracture on treatment rolls	42
Figure 4-9. Treatment damage due to fount winding	43
Figure 5-1. Control brake linear.....	44
Figure 5-2. Diameter measurement with laser to control brake.....	45

LIST OF TABLES

Table	Page
Table 4-1. Table of results of taper tension test settings against defects that occur ...	39