THREADING ON THE LATHE-MACH3 TURN

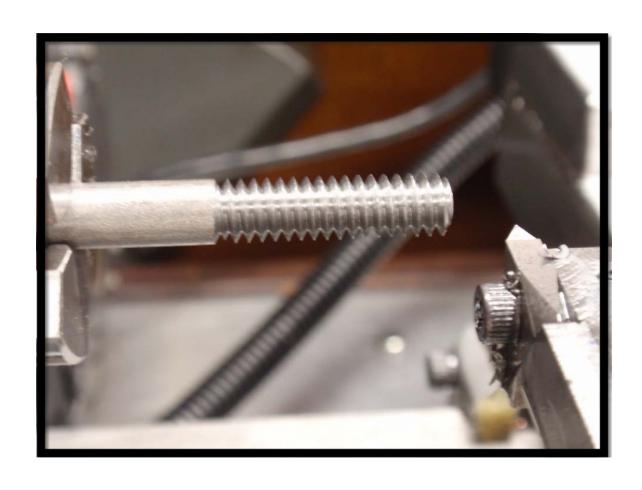


TABLE OF CONTENTS

SECTION TOPIC	PAGE
1.0 PREFACE	
2.0 MACH THREADING	
HOW IT WORKS	
2.0 TESTING YOUR LATHE	
TEST EQUPMENT	
AXIS TESTS	
TRIGGERING TEST	
SCRIBING	
SPINDLE RPM	
MISCLEANEOUS	
3.0 THREAD BASICS	
FORMS	
DEFINITONS	
DEPTH OF CUT BASIS	
MEASURING THE THREAD	
TOLERANCE	
4.0 THREAD CUTTING FEED METHODS	
FORMULAS	
THREAD CUTTERS	
TIP RADIUS	
5.0 GCODE – MACH THREADING WIZARDS & CANNED CYCLES	
5.1 WIZARDS	
5.2 G76 THREADING CYCLE	
THREADING DEFAULTS	
5.3 METHOD CHOICE	
5.4 SIMPLE THREADING (LATHE) WIZARD	
5.5 QUICK THREADS WIZARD	
5.6 HELPFUL INFO / PROGRAMS	
6.0 MACH3 TURN CONFIGURATION	
CONFIGURATION	
MODIFYING M1076 MACRO	
7.0 MULTI START THREADING	
8.0 HOW TO PICK UP A THREAD	
9.0 REFERENCES	

1.0 PREFACE

This writing is done to provide a general insight into threading. Threading is a complex machining operation if you look at the big picture of what is involved. Hopefully this will provide some insight into on how it is all related, and thus be successful at machining threads on the lathe.

The document is a collection of many threads and replies on the Mach Forum and is supplemented by a lot of information from manufactures, books, and experience. There are books and plenty of reference sources available for reading. This only covers single point threading. The writing is tailored to the user of MACH3 TURN and in that light you will find some information and answers to questions that otherwise would be difficult to search for.

I plagiarized and borrowed pictures with pride through out the write-up. So don't think for a moment that I am expert on what is not a simple subject.

You will find in the write-up "WW" which stands for "WISHY WASHY". Some things are not straight forward and vary because of how they are related. So WW just provides discussion on some subject matter.

This content of this writing is limited in subject matter and should be used as a supplement to the existing "Using Mach3 Turn Manual".