

# **C.N.C MILLING SYLLABUS**

## **PART 1**

### **➤ INTRODUCTION OF CNC MACHINES**

- **VIDEOS**
- **ANATOMY OF MACHINES**
- **AXIS NOMENCLATURE**
- **WORKING METHODS**
- **CLAMPING METHODS**
- **TOOLS & TOOL HOLDERS**
- **ADVANTAGES OF CNC**

### **➤ BASIC 2D & 3D DRAWINGS**

- **EXPLANATION OF DRAWINGS**

### **➤ TOOLS AND TOOL HOLDERS SELECTION**

- **ANOTOMY OF TOOLS AND TOOL HOLDERS**
- **TOOLS NOMENCULTURE**
- **VIDEOS OF ALL TOOL HOLDERS**

### **➤ INTRODUCTION OF PART PROGRAMMING**

- **PROGRAMMING STRUCTURE**
- **SPECIAL CHARACTERS / LETTERS**

### **➤ INTRODUCTION OF M-CODES & G-CODES**

- **EXPLAIN OF ALL CODES**

## **PART - II**

**G00 - RAPID POSITIONING MOTION**

**G01 - LINEAR INTERPOLATION MOTION**

**EXERCISE**

**G02 - CIRCULAR INTERPOLATION CLOCKWISE**

**G03 - CIRCULAR INTERPOLATION ANTI-CLOCKWISE**

**EXCERCISE**

### **➤ FACING**

- **EXCERCISE**

➤ **END MILL INTRODUCTION**

- **EXCERCISE**

➤ **I-J MARKING**

- **INTRODUCTION OF I-J-K METHOD**
- **WHY USING I-J-K METHOD**
- **EXCERCISE**

➤ **I-J END MILL**

- **EXCERCISE**

➤ **SUB PROGRAMMING M98 & M99**

- **EXCERCISE**

➤ **ROUND TO SQUARE**

**PART - III**

➤ **CANNED CYCLE INTRODUCTION**

- **6 STEPS IN CANNED CYCLE**

➤ **DRILLING CYCLE**

- **G81 EXCERCISE**
- **G82 EXCERCISE**
- **G83 EXCERCISE**
- **G73 EXCERCISE**

➤ **BORING CYCLE**

- **G85 EXCERCISE**
- **G86 EXCERCISE**
- **G88 EXCERCISE**
- **G89 EXCERCISE**
- **G76 EXCERCISE**

➤ **BACK BORING CYCLE**

- **G87 EXCERCISE**

➤ **THREADING CYCLE**

- **G74 EXCERCISE**
- **G84 EXCERCISE**