



DESIGN AND DEVELOPMENT OF OLIVE PITTING & GRADING MACHINE



ABSTRACT

WE HAVE DESIGNED A SEMI-AUTONOMOUS MACHINE FOR EXTRACTION OF OLIVES, BUT OUR PROJECT MAINLY EMPHASIZES ON GRADING OF OLIVES WHICH IS OUR REQUIRED GOAL AT THE END OF THE DAY. THE MACHINE WORKS ON THE PRINCIPLE OF GENEVA AND CRANK MECHANISM AND DESIGNED IN SUCH A WAY SO THAT OLIVES OF ALL SIZES CAN BE SORTED OUT AND THEN PASSED AHEAD FOR PITTING PROCESS. THIS PROJECT WE HAVE CHOSEN TO HAVE BOTH COMMERCIAL AND INDUSTRIAL VALUE.

OBJECTIVES

- TO MAKE OUR MACHINE USE ON BOTH COMMERCIAL AND INDUSTRIAL LEVEL SCALE.
- MACHINE CAN GRADE 50-55KG OLIVES PER HOUR.
- MACHINE HAS LOW COST AND HAVE FOLLOWING ATTRIBUTES I.E., EASY TO MOVE, USER FRIENDLY, EASY CLEANING AND REDUCES MANPOWER.
- OLIVE BUSINESS WILL BE BOOSTED IN PAKISTAN.

ACCOMPLISHMENTS

- RESEARCH AND ANALYSIS OF ALL KINDS OF OLIVES.
- GRADING MECHANISM FOR SORTING ALL SIZES OF OLIVES.
- USED STAINLESS STEEL AS FRUIT GRADE MATERIAL.

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PICTORIAL REPRESENTATION



ASCOLANA



ARBEQUINA



GRADING AND PITTING MACHINE. DESIGN RESEMBLANCE TO THE SELECTED DESIGN OF OLIVE PITTING MACHINE.

ACTUAL FIGURES OF PROJECT

TOOL USED

ANSYS

SOLIDWORKS

creo parametric

CNC MACHINE

DEPARTMENT OF MECHATRONICS ENGINEERING