CHAPTER - I

INTRODUCTION

The basic operations performed in a modern rice mill are cleaning, shelling, separation, polishing and grading. Paddy separation is required after the paddy is shelled and before the shelled paddy is fed into the polisher. So, it occupies a central position in a modern rice mill. The capacity of the separator affects the capacity of the rice mill. Moreover, if the sheller product which contains 5-20% paddy goes to the polisher along with the shelled rice it will reduce the life of the polisher due to the abrasive action of husk on the polisher parts and the husk may contaminate the bran. To obtain better outturn and superior quality of bran the paddy separation is necessary.

Paddy separators available commercially are of large capacities ranging from $\frac{1}{2}$ ton/hr to 4 ton/hr and above. To handle about 200 grams to 1 kg of the paddy and brown rice mixture in the grading laboratories for the quality test no successful laboratory paddy separators are available. In the grading laboratories the paddy separation is done by hand picking which is quite labourious and time consuming. So there is a great need to have a suitable small capacity paddy separator to meet the requirement of the grading laboratory for the quality control tests.