```matlab
clear all; close all; clc;
Rotor=[];
ratios=[];

for k = [2 3 5 6 7 9 10]
Irgb =imread(['impellers/rotor',sprintf('%2.2d',k), '.jpg']);
Ihsv =rgb2hsv(Irgb);
I= Ihsv(:,:,3);
BW = edge(I,'canny',0.3);
SE1 =strel('line',3,0);
SE2 =strel('line',3,90);
BW2 = imdilate(BW,[SE1 SE2]);
BWfill = imfill(BW2,'holes');

[labels,number] = bwlabel(BWfill,8);

Istats = regionprops(labels,'basic','Centroid');
[values, index] = sort([Istats.Area],'descend');
[maxVal,maxIndex] = max([Istats.Area]);


x = Istats(maxIndex).BoundingBox(1);
y = Istats(maxIndex).BoundingBox(2);
w = Istats(maxIndex).BoundingBox(3);
h = Istats(maxIndex).BoundingBox(4);

radius = max(w,h)/2;
circleX = x+(w/2);
circleY = y+(h/2);

X = 0:(sqrt(numel(BWfill))-1);

circle = bsxfun(@(circleX, circleY) circleX.^2 + circleY.^2 < radius^2, X- circleX, X' -circleY);

sumInterval = sum(circle);
sumTotalPixels =sum(sumInterval);

airImage = circle - BWfill;

sumInterval = sum(airImage);
sumGapPixels = sum(sumInterval);

ratio = sumGapPixels /sumTotalPixels;

Rotor = [Rotor; k];
ratios = [ratios; ratio];

end

Table = table(Rotor, ratios);
disp(Table)
```

```
     Rotor    ratios
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2	0.35578
3	0.1592
5	0.28248
6	0.3407
7	0.17974
9	0.14746
10	0.20778