Mass Flow Measured

Pz: 0.015999 [5.77%]

Sz: 0.04995421. (0.03391). [12.24%]. [13%]

Dz: 0.277. (0.227). [81.95%]. [87%]

Equivalence Ratio

Pz: 2.74

Sz: 1.04

Dz: 0.180

Target Mass Flow Rate:

Pz: 0.0231 kg/s [8.36%]

Sz: 0.0849 kg/s (0.0618). [22.4%]. [24.44%]

Dz: 0.276 kg/s. (0.1911). [69.23%]. [75.56%]

Area Cur:

Pz: 6.528 mm X 12. (401.63mm2)

Sz: 7mm X 24 (923.62mm2)

Dz: 3.394 mm X 300. (2714 mm2)

(4039.25mm2)

Reduce Sz and DZ area by 2.59% of the total area but 2.749% of the combined sz dz area

0.02749\*3637.62 = 99.99 mm2

Distributed to Sz and DZ

Sz: 13 mm2 reduced. 🡪 910.62 mm2

Dz: 87 mm2 reduced. 🡪 2627 mm2

Increase sz or decrease dz mass flow by 11.44% of the total sz+dz flow rate

So increase the sz area by 5.72% and decrease dz area by 5.72% of the total area which is 202.351864 mm2

Thus, Total area

Sz: 1112.971864 mm2

Dz: 2424.648136 mm2

Sz hole numbers increase by 20.5% which is 28.92 holes (Keep 28 holes)

Flow area would sz would be: 1077.56 mm

Still need to increase area of each hole by 3.28% which means diameters by 1.623% or

7.11 mm X 28 holes

Dz: Area of each hole reduced by 10.66% or diameter by 5.48% or

3.208 mm X 300 holes