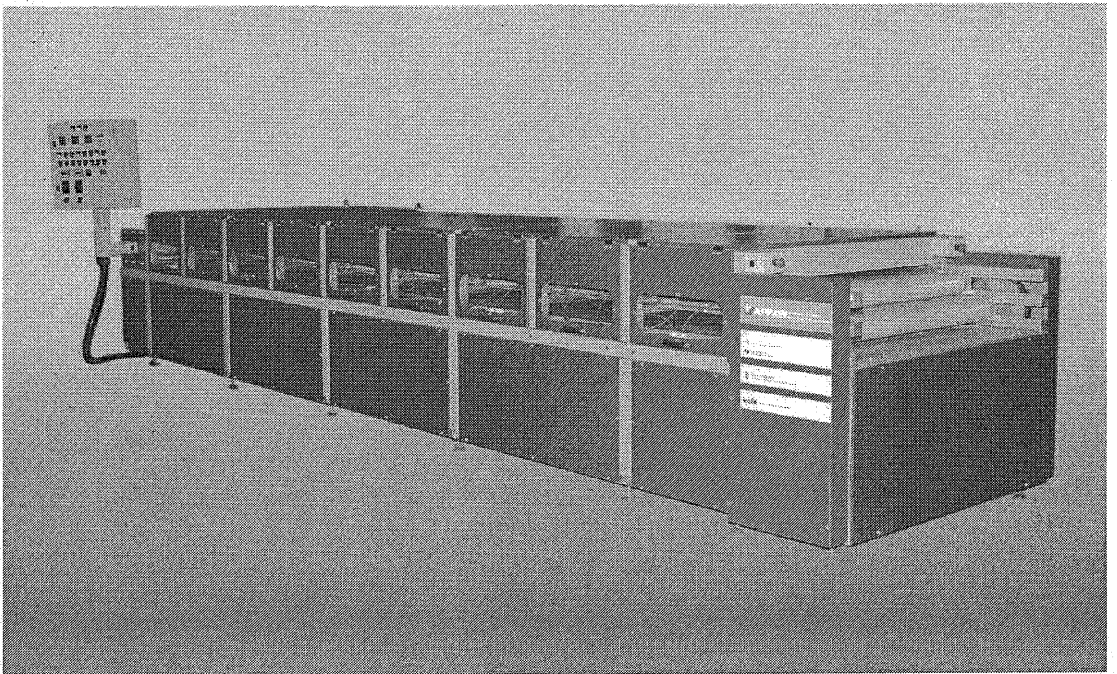


Project: Setting up of an industrial Scale Atmospheric Pressure Plasma system for Kullu Region to Improve Angora Wool Processing

Large scale plasma treatment system is developed to improve angora wool processing. The developed system is installed at Kullu, Himachal Pradesh. Dielectric barrier discharge based atmospheric pressure plasma is used for wool treatment. The discharge power density is of 0.05 W/cm^2 and wool exposure time is 1 min for Angora wool treatment. Wool can be treated with different power densities and exposure times by using this system. One meter wide Angora web at the processing speed of 3-4 m/min can be treated by using this system. During design and development of the system the attention is given on development of user friendly, environmental friendly plasma treatment system. As the system is going to perform on the shop floor, the study in the shop floor conditions is made and suitable changes are made in the system. The effect on the performance of plasma system due to change in the relative humidity is studied.



Developed Atmospheric Pressure Plasma System