Calendering is a well-known operation in which a material is run between rolls to thin it into sheets or to produce smooth or glossy finish. An attempt has been made in this investigation to remove the drawbacks in the model of Meijers and applicable directly to soft calendering, also to make nip mechanics model generalized and applicable, so that it can be applicable where there is roll to roll or roll to plate contact. Also, the effect of various design and process parameters on results of soft calendering has been discussed using the data taken from paper industry.