Bellows materials are specified as 316 for sub-LN2 temperature service, and 304 for RT service. Room temperature yields of highly cold worked materials should be in the range of 500 MPa for 316 and 1000 MPa for 304. All the bellows must see their pressure service at room temperature. The gravity support bellows worst loading is due to a lateral displacement due to cryostat contraction.
Bellows used for the Joint penetration. The overall length of this model is .127m or 5 inches. The convolution pitch is 12mm with 5mm flats. The inner diameter is 6.25 cm or about 2.5 inches. The stock thickness is .016”