Single Acting Rod Seal

HBT

Metric

Design

Claron style HBT is a single acting seal for gland applications. Designed as a high pressure, low friction seal for use in second generation tandem sealing arrangements where the lower friction seal is used on the pressure side, and a 'low leak' but higher friction seal on the non pressure side to collect the oil film during the positive stroke. This type of arrangement is used where both low friction and low leakage are required. The seals high pressure resistance makes it suitable for use in heavy duty applications where shock loads and pressure spikes occur, as found in mobile plant equipment.

Materials

Both the inner sealing element and the energiser are available in a wide range of materials to suit a variety of applications. The inner sealing element is manufactured from high performance Bronze filled PTFE, energised by an NBR O-Ring as standard.

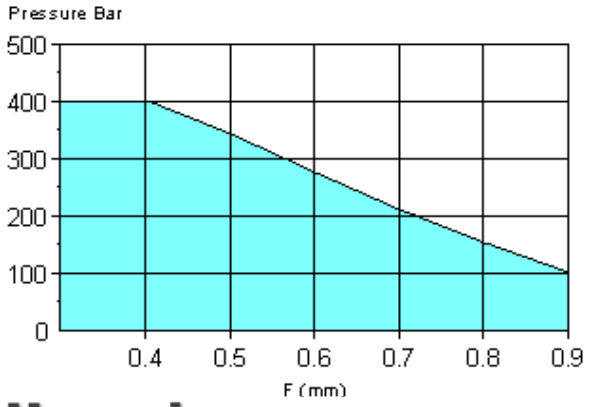
Operating Range

Maximum Working Pressure Bar (For Standard Materials)

Temp. Range	Temp. Range
-30°C to 80°C	80°C to 120°C
400 Bar	350 Bar

Optimum service conditions are affected by temperature, speed, pressure, surface finish and extrusion gaps. Refer to Appendix 1 for further information.

Maximum Diametral Clearance F



Note: Clearance gap F is the maximum permissable. i.e. gap completely on one side, in the temperature range of -30°C to 80°C

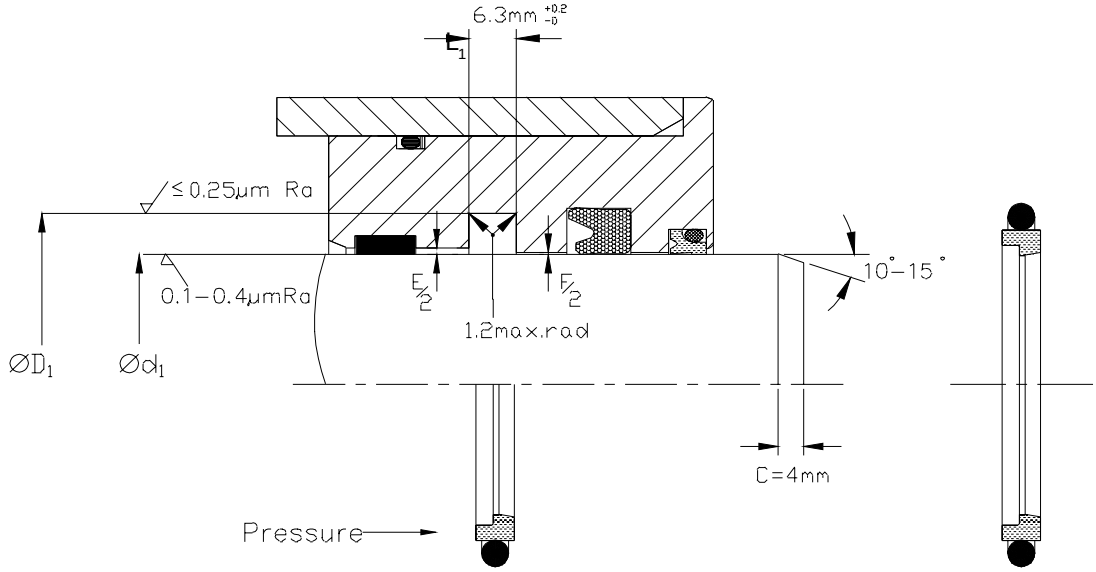
The use of a suitably selected Claron bearing ring will effectively reduce the clearance gap F max. to a value closer to F/2 thus increasing the pressure capability of the seal. F/2 should be calculated allowing for all movements due to side-load and cylinder expansion.

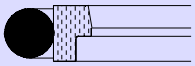
Housing

For surface finish and recommended lead in chamfers refer to the illustration below. For housing dimensions and machining tolerances refer to the catalogue page of selected seal. For value of E/2, refer to the bearing ring requirements. Refer to Appendix 4 for value of tolerance symbols.

Fitting

Style HBT may be deformed and fitted into a closed groove. For the seal to function correctly, it is important that care be taken in fitting the seal within its housing. For a detailed checklist, refer to Appendix 3.





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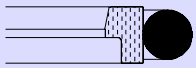

Nominal Dimensions & Machining Tolerances

Claron Part Number	f8 Ød$_1$	H9 ØD$_1$	+0.20 -0.00 L$_1$	Nominal C
HBT 015	15	30.5	6.3	4
HBT 020	20	35.5	6.3	4
HBT 025	25	40.5	6.3	4
HBT 030	30	45.5	6.3	4
HBT 035	35	50.5	6.3	4
HBT 040	40	55.5	6.3	4
HBT 045	45	60.5	6.3	4
HBT 050	50	65.5	6.3	4
HBT 055	55	70.5	6.3	4
HBT 060	60	75.5	6.3	4
HBT 063	**63**	**78.5**	**6.3**	**4**
HBT 065	65	80.5	6.3	4
HBT 070	**70**	**85.5**	**6.3**	**4**
HBT 075	75	90.5	6.3	4
HBT 080	**80**	**95.5**	**6.3**	**4**
HBT 085	85	100.5	6.3	4
HBT 090	**90**	**105.5**	**6.3**	**4**
HBT 095	95	110.5	6.3	4
HBT 100	**100**	**115.5**	**6.3**	**4**
HBT 105	105	120.5	6.3	4
HBT 110	**110**	**125.5**	**6.3**	**4**
HBT 115	115	130.5	6.3	4
HBT 120	120	135.5	6.3	4
HBT 125	**125**	**140.5**	**6.3**	**4**
HBT 130	130	145.5	6.3	4
HBT 135	135	150.5	6.3	4
HBT 140	**140**	**155.5**	**6.3**	**4**
HBT 145	145	160.5	6.3	4
HBT 150	150	165.5	6.3	4
HBT 155	155	170.5	6.3	4
HBT 160	**160**	**175.5**	**6.3**	**4**
HBT 165	165	180.5	6.3	4
HBT 170	170	185.5	6.3	4
HBT 175	175	190.5	6.3	4
HBT 180	**180**	**195.5**	**6.3**	**4**
HBT 185	185	200.5	6.3	4
HBT 190	190	205.5	6.3	4
HBT 195	195	210.5	6.3	4
HBT 200	200	215.5	6.3	4
HBT 205	205	220.5	6.3	4
HBT 210	210	225.5	6.3	4
HBT 215	215	230.5	6.3	4
HBT 220	220	235.5	6.3	4
HBT 225	225	240.5	6.3	4
HBT 230	230	245.5	6.3	4

Items in **BOLD** are to suit ISO7425-2 housings.