



Fig. 56 — Hermetic Compressor Fits and Clearances

Table 18 — Hermetic Compressor Fits and Clearances

ITEM*	DESCRIPTION	CLEARANCE†				TYPE OF MEASURE
		in.		mm		
		Minimum	Maximum	Minimum	Maximum	
1	1st Stage Impeller to Diaphragm	See Tabulation				Axial
2	2nd Stage Impeller to Discharge Wall					Axial
3	1st Stage Labyrinth	.0160	.0200	.4060	.5080	Diametral
4	Interstage Labyrinth	.0120	.0160	.3050	.4060	Diametral
5	2nd Stage Labyrinth	.0080	.0120	.2030	.3050	Diametral
6	Balancing Piston Labyrinth	.0080	.0120	.2030	.3050	Diametral
7	Impeller Shaft Journal Bearing	.0030	.0045	.0762	.1143	Diametral
8	Thrust-end Float	.0100	.0150	.2540	.3810	Axial
9	Counterthrust Bearing Seal Ring	.0020	.0040	.0510	.1020	Diametral
10	Gear Bearing to Gear	.0050	.0065	.1270	.1651	Diametral
11	Gear Bearing to Gear	.0100	.0185	.2540	.4699	Axial
12	Gear Bearing to Bearing Housing	.0005	.0025	.0127	.0635	Diametral
13	Pinion Bearing to Pinion	.0040	.0055	.1016	.1397	Diametral
14	Pinion Bearing to Bearing Housing	.0005	.0025	.1270	.0635	Diametral
15	Transmission Labyrinth	.0060	.0100	.1520	.2540	Diametral
16	Motor-End Labyrinth	.0050	.0080	.1270	.0635	Diametral
17	Motor-End Bearing to Shaft	.0040	.0054	.1016	.1372	Diametral
18	Motor-End Bearing to Bearing Housing	.0005	.0020	.0127	.0508	Diametral

*See Fig. 56 for item callouts.

†Clearances represent factory tolerances for new components.

Tabulation — Impeller Clearances (Hermetic Compressors)

19EX SHROUD CODE	FA SHROUD CODE	IMPELLER CODE	IMPELLER DIAMETER		DIMENSION*			
			in.	mm	Item 1		Item 2	
					in.	mm	in.	mm
5	3	1	12.00	304.8	0.837	21.26	0.638	16.21
		3	12.38	314.5	0.797	20.24	0.609	15.47
		5	12.75	323.8	0.757	19.23	0.579	14.71
		7	13.25	336.6	0.717	18.21	0.541	13.74
		9	13.75	349.2	0.690	17.53	0.541	13.74
6	4	1	12.00	304.8	0.977	24.82	0.760	19.30
		3	12.38	314.5	0.937	23.80	0.726	18.44
		5	12.75	323.8	0.897	22.78	0.688	17.48
		7	13.25	336.6	0.837	23.62	0.639	16.23
		9	13.75	349.2	0.810	20.57	0.632	16.05
7	5	1	12.00	304.8	1.177	29.90	0.895	25.02
		3	12.38	314.5	1.137	28.88	0.852	21.64
		5	12.75	323.8	1.077	27.36	0.809	20.55
		7	13.25	336.6	1.017	25.83	0.750	19.05
		9	13.75	349.2	0.970	24.64	0.731	18.57
8	6	1	12.00	304.8	1.297	32.94	0.972	24.69
		3	12.38	314.5	1.237	31.42	0.928	23.57
		5	12.75	323.8	1.177	29.90	0.880	22.35
		7	13.25	336.6	1.007	27.86	0.817	20.75
		9	13.75	349.2	1.050	26.67	0.796	20.22
—	8	1-9	13.75†	349.2†	4.425	112.39	.876	22.25
			13.50**	342.9**				
—	9	1-9	13.75†	349.2†	4.425	112.39	1.055	26.80
			13.50**	342.9**				

*Measured with shaft in thrust position (towards suction end); tolerance = ± .005 in. (± .127 mm).

†First-stage diameter.

**Second-stage diameter.