

Table 11-A — Recommended Spare Parts (see Figure 11-1)

Item No.	Quantity				Description	Part Number	Remarks
	D16	D25	D40	D65			
E16	1	1	2	2	Oil Filter Elements: o Combination*	18999	For CFS Oil Filter System: Alumina & particulate, 1.6 ltr 1.6 liter capacity Alumina, 1 ltr capacity
	1	1	2	2	o Particulate*†	200-09-804	
	1	1	2	2	o Activated Alumina‡	18996	
F29	1	1			Exhaust Filters	18972	
			2	2	Exhaust Filters	18973	
C3	1				Internal Demister	390-26-012	Included in gasket set.
		1			Internal Demister	390-26-013	
			1	1	Internal Demister	390-26-014	
I3	3	3	3	3	EIS Fuses	520-25-318	Extra EIS fuses are supplied with the pump.
N/A	1				Pumping Module	11292-KIT†	11292-1-KIT† for extreme-corrosive service
		1			Pumping Module	11293-KIT†	11293-1-KIT† for extreme-corrosive service
			1		Pumping Module	11294-KIT†	11294-1-KIT† for extreme-corrosive service
				1	Pumping Module	11295-KIT†	11295-1-KIT† for extreme-corrosive service
C11	1	1			Oil-Case Gasket	200-10-737	Included in gasket set and with pumping module.
			1	1	Oil-Case Gasket	200-10-741	
C25	1	1			Module Flat Gasket	200-10-736	Included in gasket set and with pumping module.
			1	1	Module Flat Gasket	200-10-744	
N/A	1	1			Gasket Set	197 31	All parts with an "*" beside their P/N in Tables 11-B, 11-C, & 11-D are included in the gasket set. See the footnotes to Tables 11-E thru 11-H for the P/N's of the CFS, ARS, IGS, & LSS gasket sets.
			1	1	Gasket Set	197 32	
N/A			1	1	Conversion kit PFPE	200-39-106	Kits include everything needed to convert oil-lubricated shaft seals to the new grease-lubricated design.
			1	1	Conversion kit hydrocarbon	200-39-116	
N/A			1	1	PFPE shaft-seal grease	726-25-001	For extreme-corrosive 40/65 pump models.
			1	1	HC shaft-seal grease	200-39-107	For standard 40/65 pump models.
D33	1	1			Shaft Bushing Sleeve	231-92-026	Replace this sleeve when replacing shaft seals (D30).
			1	1	Shaft Bushing Sleeve	231-92-034	
D13	2				Forevacuum-Stage Vane	200-10-656	
		2			Forevacuum-Stage Vane	200-10-655	
			2		Forevacuum-Stage Vane	200-10-653	
				2	Forevacuum-Stage Vane	200-10-652	
D17	2				HV-Stage Vane	200-10-655	
		2			HV-Stage Vane	200-10-885	
			2		HV-Stage Vane	200-10-652	
				2	HV-Stage Vane	200-10-886	
N/A	1	1			Installation Tool	722-81-031	For inner shaft seal.
	1	1			Installation Tool	722-81-032	For outer shaft seal.
	HE-1600 PFPE Vacuum Oil			1 pound (4 lbs. of HE-1600 = 1 qt)	898564	See Section 10.3 & Table 6-B.	
	HE-200 Hydrocarbon Vacuum Oil			1 gallon 5 gallons 55 gallons	98-198-007 98-198-008 98-198-010	See Section 10.3 & Table 6-B.	
	White touch-up paint			12 oz. aerosol can	722-79-011		
	Yellow touch-up paint			1 gallon	722-79-013		

*The 1.6 liter elements can be used only on the B2 version of the CFS filtering system. The B2 version is the one with the black plastic valve handle.

‡If you switch from the standard combination filter to the particulate or alumina filter, you must change the spring in the oil-pressure switch (see Section 6.4 and Section 6.5, Step 4).

†The module is made up of all parts with a "†" by their P/N in Tables 11-C & 11-D including the module flat gasket (C25) and the oil-case flat gasket (C11).

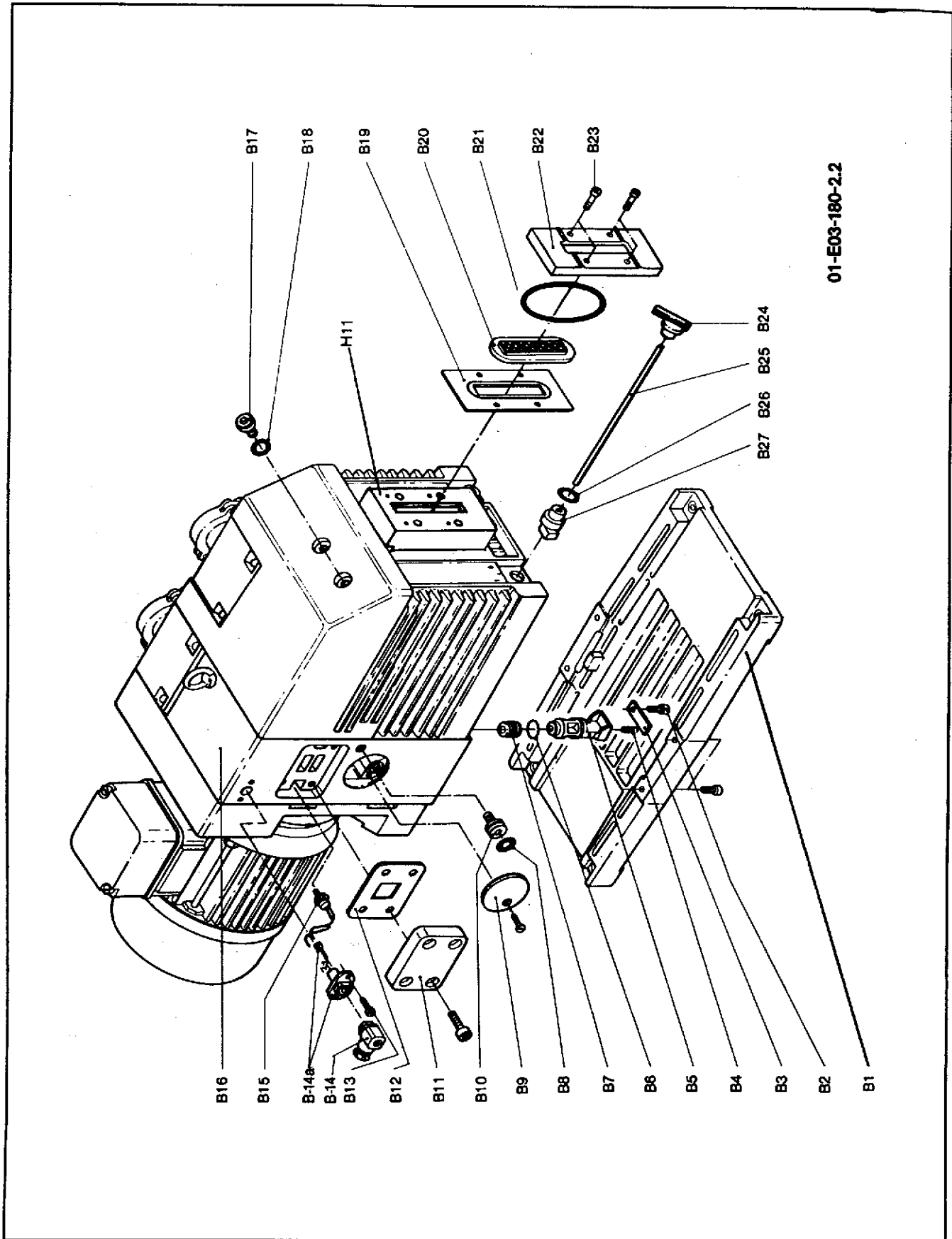


Figure 11-2. TRIVAC BCS System Pump, Exploded Level 2

Table 11-B — Parts List for the TRIVAC BCS System Pumps (see Figure 11-2)

Item No.	Quantity				Description	Dimensions (mm)	Material	Part Number	Remarks
	D16	D25	D40	D65					
B1	1	1	1	1	Pump baseplate	320 x 172 x 24	Cast Aluminum	200 10 018	
					Pump baseplate	414 x 234 x 35	Cast Aluminum	200 10 044	
B2	1	1	1	1	Capscrew	M 6 x 12, DIN 6912		201 03 014	
					Capscrew	M 8 x 16, DIN 912		201 03 119	
B3	1	1	1	1	Supporting plate	35 x 10 x 2	Steel	451 74 040	
					Supporting plate	46 x 20 x 2	Steel	451 74 039	
B4	1	1	1	1	Spring	0.9 x 5.4 x 35	Steel	221 61 041	
B5	1	1	1	1	Piston	D 21.5 x 57	Viton	321 06 151	
B6	1	1	1	1	O-ring	16 x 2.5	Viton	239 70 147*	
B7	1	1	1	1	Seal	D 16 x 12.5	Viton	348 61 029*	
B8	1	1	1	1	O-ring	6 x 2	Viton	239 70 412*	
					O-ring	15 x 2	Viton	239 70 008*	See Item G10.
B9	1	1	1	1	Cover	54 x 3	Aluminum	221 02 253	See Item G8 for adapter.
					Cover	54 x 3	Aluminum	200 09 335	See Item G11 for adapter.
B10	1	1	1	1	Plug Screw	12 x 21	Steel	200 09 486	
					Plug Screw	22 x 20	Steel	200 09 447	
B11	1	1	1	1	Cover	4 x 40 x 53, DIN 1789	Cast Aluminum	200 10 085	
					Cover	63.5 x 89.5 x 15	Cast Aluminum	200 10 088	
B12	1	1	1	1	Flat gasket	53 x 40	AFM	200 10 732*	
					Flat gasket	88.5 x 62.5 x 0.5	AFM	200 10 745*	
B13	2	2	2	2	Cheese head screw	M 3 x 10, DIN 7985		201 80 159	
B14	1	1	1	1	Plug	4 pol. 50V/6A		200 09 407	
B14a	1	1	1	1	Socket	4 pole, 50V, 6A		200 09 408	
					Gasket			200 09 409	
					Plins			200 09 410	
B15	1	1	1	1	Thermal switch			200 09 739	
					Thermal switch	4 pol. 50V, 6A		200 09 740	
B16	1	1	1	1	Coupling housing	170 x 212 x 66	Cast Aluminum	200 09 462	
					Coupling housing	305 x 243 x 117	Cast Aluminum	200 09 359	
B17	3	3	3	3	Plugscrew	M 16 x 1.5, DIN 908		201 27 105	
B18	3	3	3	3	Flat gasket	15.1 x 22 x 1.5	Viton	239 55 165*	
B19	1	1	1	1	O-ring	70 x 5	Viton	239 70 509*	
					Flat gasket	149 x 63 x 0.5	AFM	200 10 747*	
B20	1	1	1	1	Oil sight glass	111 x 35 x 14	Glass	350 01 179	
B21	1	1	1	1	Flat gasket	108 x 32.5 x 1	AFM	200 12 257*	
					O-ring	69.44 x 3.53	Buna-N	239 50 121*	
B22	1	1	1	1	Frame	43 x 132 x 14	Aluminum	200 10 017	
					Frame	150 x 63 x 14	Cast Aluminum	200 10 043	
B23	4	4	4	4	Capscrew	M 4 x 18, DIN 912		200 09 162	
B24	1	1	1	1	Knob, gas ballast	30 x 36 x 18		281 53 014	
B25	1	1	1	1	Shaft, gas ballast	4 x 4 x 169, DIN 178		401 57 330	
					Shaft, gas ballast	4 x 4 x 231, DIN 178		401 57 332	
					Shaft, gas ballast	4 x 4 x 230, DIN 178		401 57 329	
					Shaft, gas ballast	4 x 4 x 308, DIN 178		401 57 331	
B26	1	1	1	1	O-ring, gas ballast	12 x 1.5	Viton	239 70 108	
B27	1	1	1	1	Cam, gas ballast	D 16 x 29		281 53 015	The mechanical gas ballast valve is inoperative; it has been replaced by a solenoid valve.

*Included in gasket set (see Table 11-A).

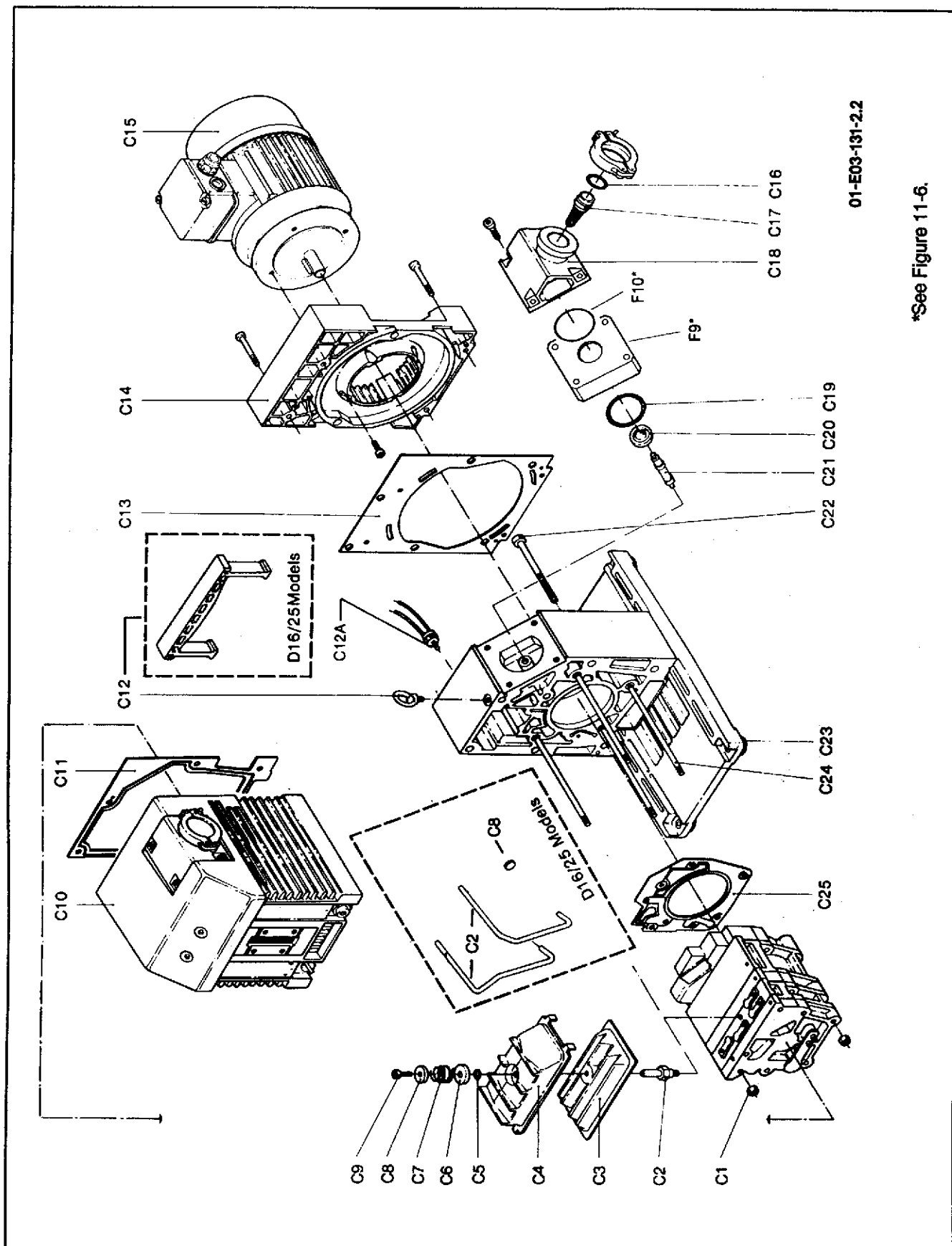


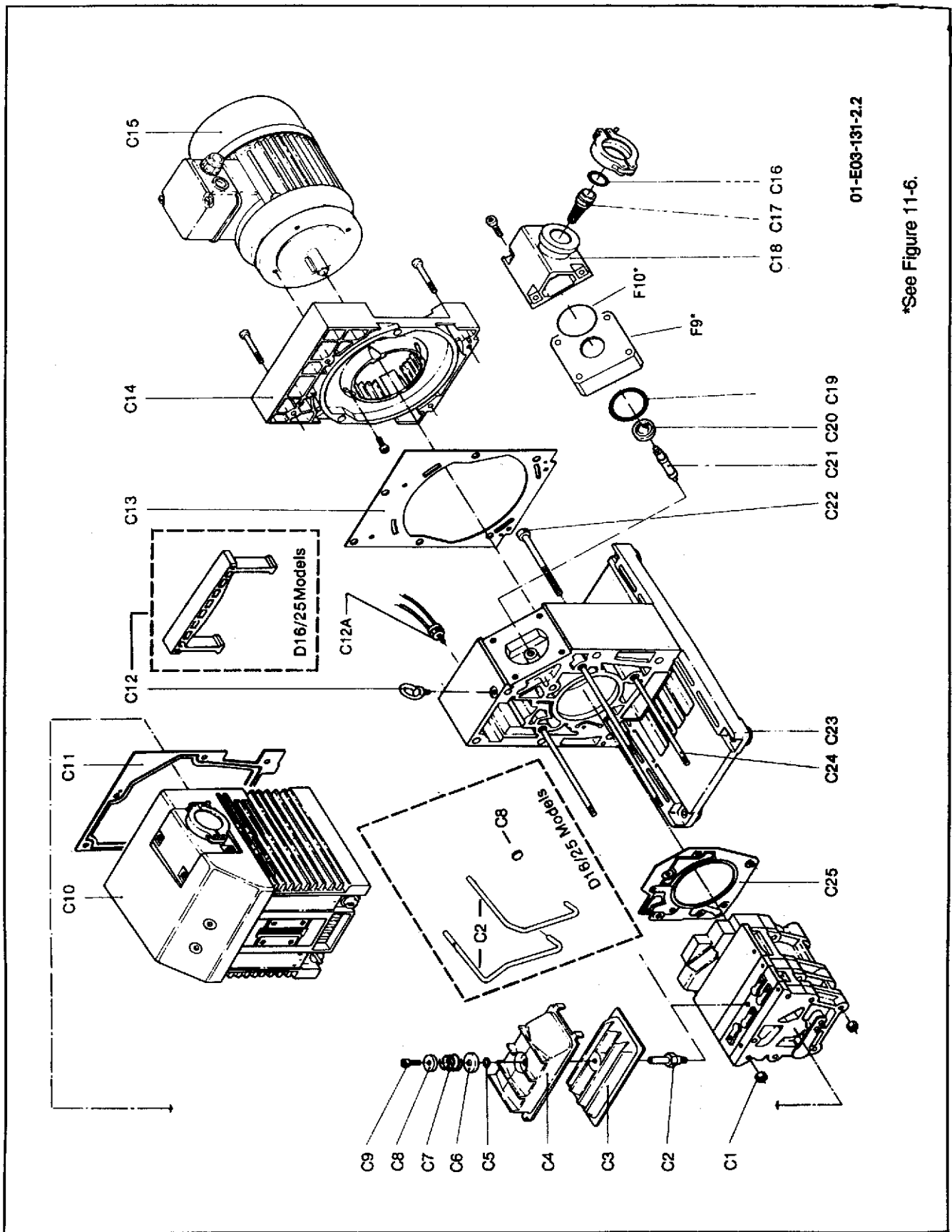
Figure 11-3. TRIVAC BCS System Pump, Exploded Level 3

Table 11-C — List of Parts for the TRIVAC BCS System Pumps (see Figure 11-3)

Item No.	Quantity				Description	Dimensions (mm)	Material	Part Number	Remarks
	D16	D25	D40	D65					
C1	4	4	4	4	Nut	M6, DIN 934-10	211 03 009†		
					Nut	M8, DIN 934	211 03 010†		
C2	2	2			Clamp rod	D4, DIN 17224	221 61 034†		
					Mounting post	67 x 19	201 03 010†		
C3	1				Internal demister		390 26 012*†		
					Internal Demister		390 26 013*†		
					Internal Demister	185 x 99 x 29	390 26 014*†		
C4	1				Frame	18 x 77 x 122	331 68 036†		
					Frame	18 x 108 x 12	200 09 223†		
					Frame	98 x 40 x 195	200 09 224†		
C5	1	1	1	1	O-ring	10 x 3	239 70 305*†		
C6	1	1	1	1	Pressed disc	D 34 x 5	200 09 135†		
C7	1	1	1	1	Split spring	3.2 x 22/32	200 09 118†		
C8	1	1	1	1	Disc	D 10 x 2	221 02 036†		
					Tension disc	D 25 x 3	401 57 311†		
C9	1	1	1	1	Capscrew	M 6 x 20	201 03 103†		
					Oil case	170 x 212 x 183	200 09 341		
					Oil case	170 x 212 x 245	200 09 347		
					Oil case	246 x 305 x 234	200 09 343		
					Oil case	324 x 305 x 234	200 09 349		
C11	1	1	1	1	Flat gasket, oil case	170 x 112 x 0.5	200 10 737†		
					Flat gasket, oil case	235 x 287	200 10 741†	Doesn't include sight glass assembly.	
C12	1	1	1	1	Handle	DIN 7728	281 53 012		
					Eye bolt	M 8, DIN 580	201 13 101		
C12A	1	1	1	1	Thermal switch		200 09 739		
					Thermal switch	4 pol. 50 V, 6 A	200 09 740		
C13	1	1	1	1	Flat gasket	170 x 202 x 1.5	200 10 736*		
					Flat gasket	303 x 230 x 2	200 10 743*		
C14	1	1	1	1	Motor mount	170 x 202 x 25	200 09 157		
					Motor mount	303 x 235 x 38	200 09 154		

*Included in gasket set (see Table 11-A).

†Included in pumping module (see Table 11-A).



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*See Figure 11-6.

Figure 11-3. TRIVAC BCS System Pump, Exploded Level 3

Table 11-C — List of Parts for the TRIVAC BCS System Pumps (see Figure 11-3)

Item No.	Quantity				Description	Dimensions (mm)	Material	Part Number	Remarks
	D16	D25	D40	D65					
C15	1				AC-Motor, 1 Phase, with automatically resetting thermal overload.	1 hp, 1 ph, TEFC, 115/200-230V 50/60 Hz, 1725/1450 rpm, 56C frame.		722 60 069	Prewired for 115V. Includes plug & 6 ft linecord.
	1				AC-Motor, 3 Phase, 1 hp	208-230/460 V, 60 Hz, 200-220/380 V, 50 Hz, TEFC.		722 60 070	
	1				AC-Motor, 1 Phase, 1.5 hp	1.5 hp, 208/230 V, 50/60 Hz, 1725/1425 rpm, 56C frame, 1 ph.		722 60 022	
	1				AC-Motor, 3 Phase, 1.5 hp	200-230/460 V, 60 Hz, 200-220/380 V, 50 Hz, 56C frame, TEFC		722 60 071	
C16	2	2	2	2	O-ring	28 x 5	Viton	239 70 506*	
					O-ring	42 x 5	Viton	239 70 516*	
C17	1	1			Dirt trap	KF 25	Steel	411 70 206	
			1	1	Dirt trap	KF40	Steel	411 70 121	
C18	2	2	1	1	Connecting port	DN 25	Cast Aluminum	193 01 618	
			2	2	Connecting port	DN 40	Cast Aluminum	200 09 215	For inlet & exhaust ports.
C19	1	1			O-ring	52 x 3	Viton	239 70 261*	
			2	2	O-ring	80 x 3	Viton	239 70 223*	
C20	1	1			Valve disc	D 33 x 12	Viton/Steel	401 59 004	
			1	1	Valve disc	D 50 x 27	Viton/Steel	400 50 140	
C21	1	1			Piston	D 12 x 62	Stainless stl	321 06 154	
			1	1	Piston	D 11.7 x 51	stl	321 06 155	
C22	6	6	6	6	Cylinder screw	M6 x 70, DIN 912		201 03 011	
			4	4	Cylinder screw	M8 x 125, DIN 912		201 03 722	
C23	4	4	4	4	Foot	D 25 x 18	Rubber	348 61 037	
			4	4	Foot	D 25 x 18	Rubber	370 52 204	
C24	4	4			Tie rod	M 6 x 168	Steel	101 20 007†	
			4	4	Tie rod	M 6 x 230	Steel	101 20 009†	
			4	4	Tie rod	M 8 x 224	Steel	101 20 011†	
			4	4	Tie rod	M 8 x 306	Steel	101 20 013†	
C25	1	1			Flat gasket for module	149 x 119 x 0.5	AFM	200 10 736*†	
			1	1	Flat gasket for module	166 x 190 x 0.5	AFM	200 10 744*†	
C26	2	2	2	2	Grooved pin	4 x 16, DIN 1472		241 03 001	For coupling housing.

*included in gasket set (see Table 11-A).

†included in pumping module (see Table 11-A).