

**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).

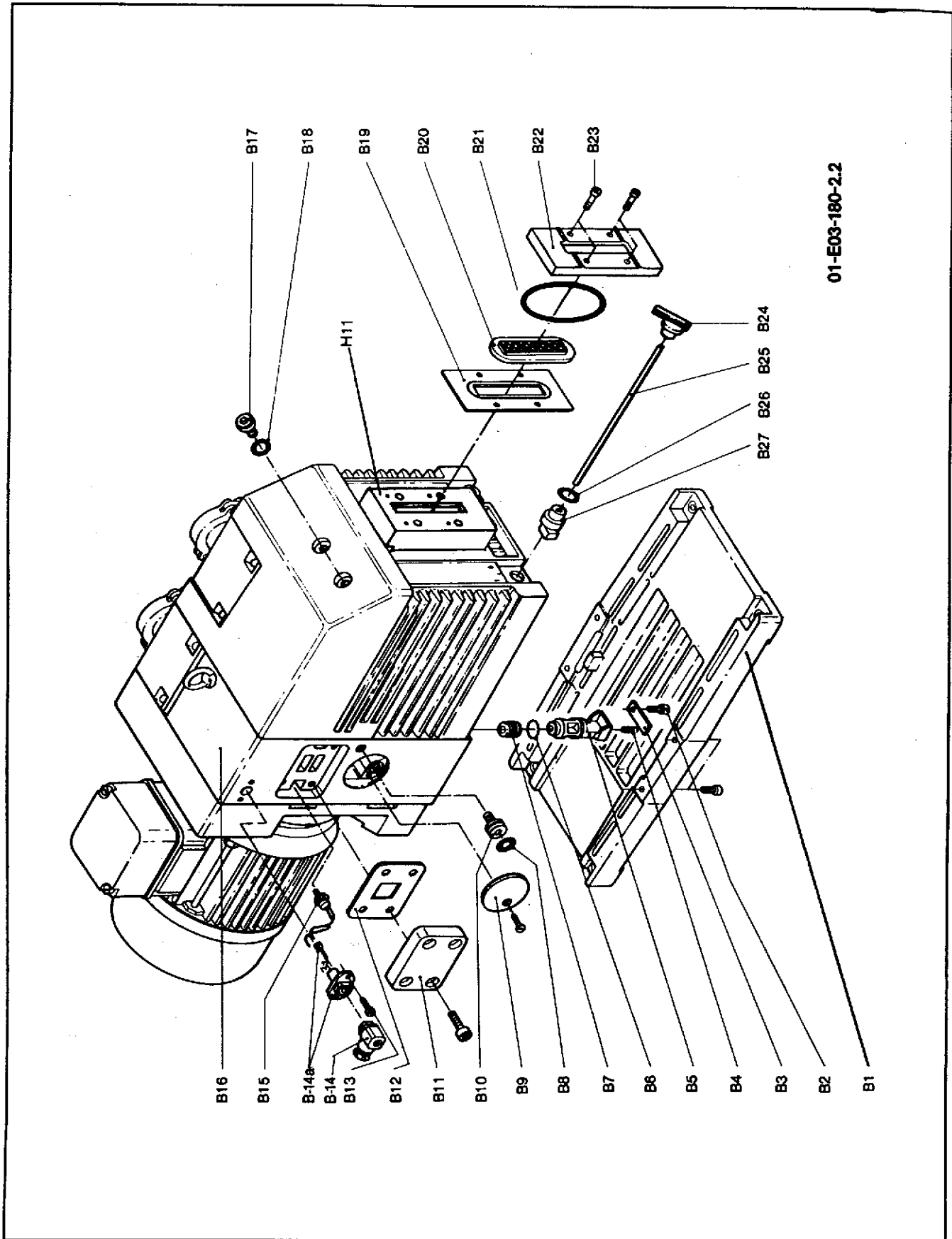


Figure 11-2. TRIVAC BCS System Pump, Exploded Level 2

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		
B2	1	1	1	1	Pump baseplate 414 x 234 x 35	Cast Aluminum	200 10 044		
B3	1	1	1	1	Capscrew M 6 x 12, DIN 6912		201 03 014		
B4	1	1	1	1	Capscrew M 8 x 16, DIN 912		201 03 119		
B5	1	1	1	1	Supporting plate 35 x 10 x 2	Steel	451 74 040		
B6	1	1	1	1	Supporting plate 46 x 20 x 2	Steel	451 74 039		
B7	1	1	1	1	Spring 0.9 x 5.4 x 35	Steel	221 61 041		
B8	1	1	1	1	Piston D 21.5 x 57	Viton	321 06 151		
B9	1	1	1	1	O-ring D 16 x 12.5	Viton	239 70 147*		
B10	1	1	1	1	Seal 6 x 2	Viton	348 61 029*		
B11	1	1	1	1	O-ring 15 x 2	Viton	239 70 412*		
B12	1	1	1	1	O-ring 54 x 3	Viton	239 70 008*	See Item G10.	
B13	2	2	2	2	Cover 54 x 3	Aluminum	221 02 253	See Item G8 for adapter.	
B14	1	1	1	1	Plug Screw 12 x 21	Aluminum	200 09 335		
B14a	1	1	1	1	Plug Screw 22 x 20	Steel	200 09 486	See Item G11 for adapter.	
B15	1	1	1	1	Cover 4 x 40 x 53, DIN 1789	Cast Aluminum	200 10 085		
B16	1	1	1	1	Cover 63.5 x 89.5 x 15	Cast Aluminum	200 10 088		
B17	1	1	1	1	Flat gasket 53 x 40	AFM	200 10 732*		
B18	2	2	2	2	Flat gasket 88.5 x 62.5 x 0.5	AFM	200 10 745*		
B19	1	1	1	1	Cheese head screw M 3 x 10, DIN 7985		201 80 159		
B20	1	1	1	1	Plug 4 pol. 50V/6A		200 09 407		
B21	1	1	1	1	Socket 4 pole, 50V, 6A		200 09 408		
B22	2	2	2	2	Plugs		200 09 409		
B23	1	1	1	1	Thermal switch		200 09 410		
B24	1	1	1	1	Thermal switch		200 09 739		
B25	1	1	1	1	Coupling housing 170 x 212 x 66		200 09 740		
B26	3	3	3	3	Coupling housing 305 x 243 x 117	Cast Aluminum	200 09 462		
B27	3	3	3	3	Plugscrew M 16 x 1.5, DIN 908	Cast Aluminum	200 09 359		
B28	1	1	1	1	Flat gasket 15.1 x 22 x 1.5	Viton	201 27 105		
B29	1	1	1	1	O-ring 70 x 5	Viton	239 55 165*		
B30	1	1	1	1	Flat gasket 149 x 63 x 0.5	Viton	239 70 509*		
B31	1	1	1	1	Oil sight glass 111 x 35 x 14	AFM	200 10 747*		
B32	1	1	1	1	Flat gasket 108 x 32.5 x 1	Glass	350 01 179		
B33	1	1	1	1	O-ring 69.44 x 3.53	AFM	200 12 257*		
B34	1	1	1	1	Frame 43 x 132 x 14	Buna-N	239 50 121*		
B35	4	4	4	4	Frame 150 x 63 x 14	Aluminum	200 10 017		
B36	1	1	1	1	Capscrew M 4 x 18, DIN 912	Cast Aluminum	200 10 043		
B37	1	1	1	1	Knob, gas ballast 30 x 36 x 18		200 09 162		
B38	1	1	1	1	Shaft, gas ballast 4 x 4 x 169, DIN 178		281 53 014		
B39	1	1	1	1	Shaft, gas ballast 4 x 4 x 231, DIN 178		401 57 330		
B40	1	1	1	1	Shaft, gas ballast 4 x 4 x 230, DIN 178		401 57 332		
B41	1	1	1	1	Shaft, gas ballast 4 x 4 x 308, DIN 178		401 57 329		
B42	1	1	1	1	Shaft, gas ballast 12 x 1.5	Viton	401 57 331		
B43	1	1	1	1	Cam, gas ballast D 16 x 29		239 70 108		
B44	1	1	1	1			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).

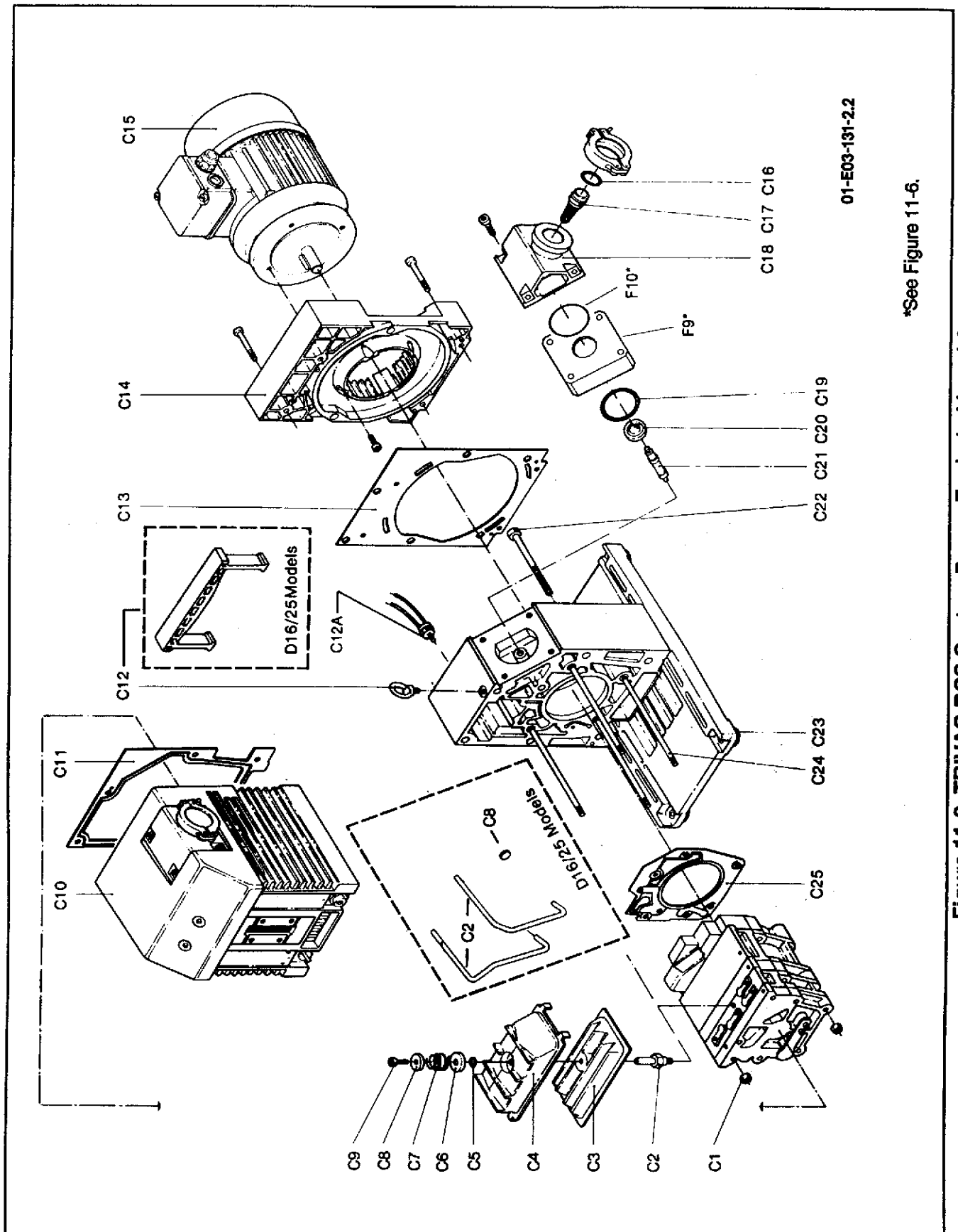
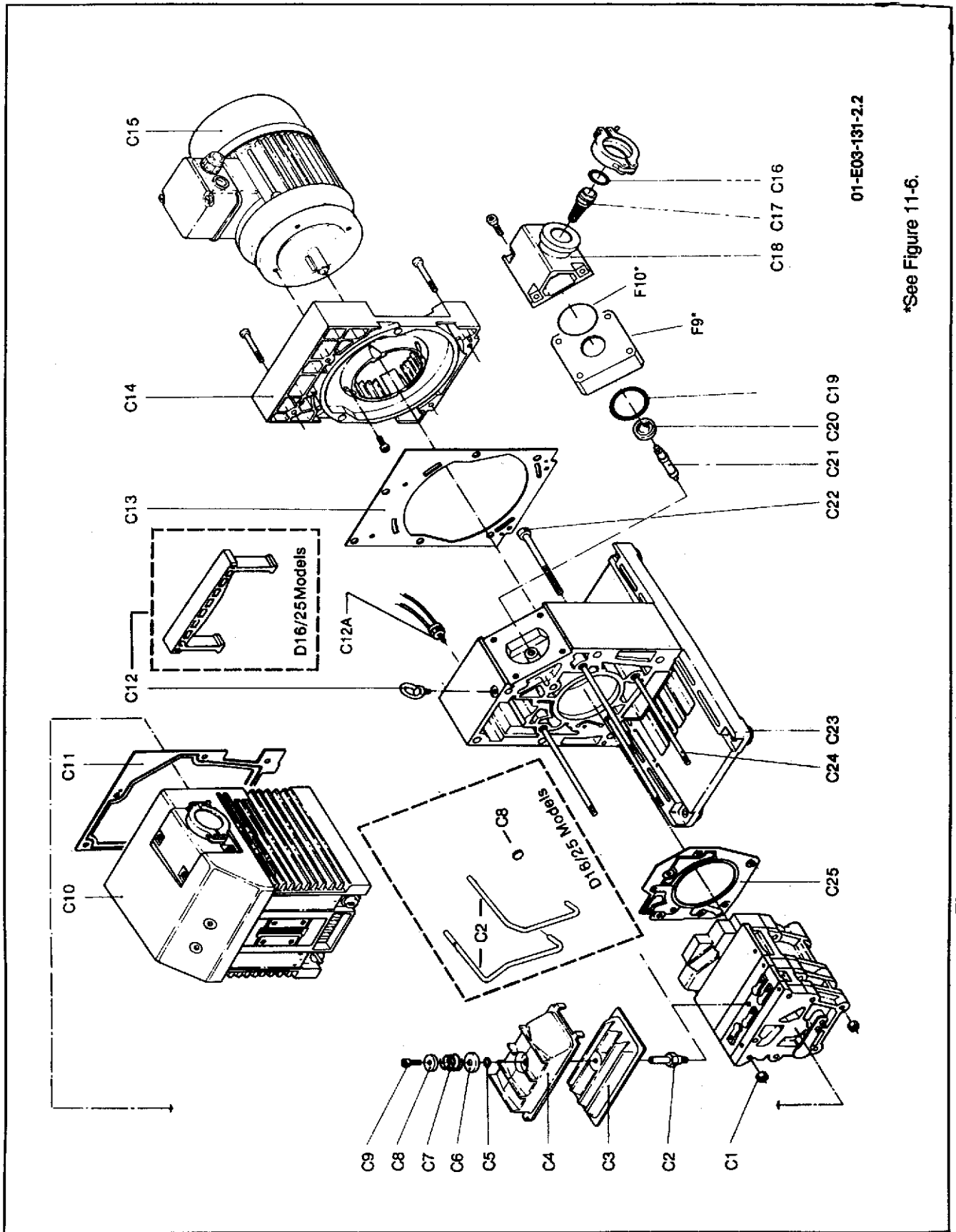


Figure 11-3. TRIVAC BCS System Pump, Exploded Level 3

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 M8, DIN 934	211 03 009† 211 03 010†		
C2	2	2	1	1	Clamp rod Mounting post	D4, DIN 17224 67 x 19	221 61 034† 201 03 010†		
C3	1	1	1	1	Internal demister Internal Demister Internal Demister	185 x 99 x 29	390 26 012*† 390 26 013*† 390 26 014*†		
C4	1	1	1	1	Frame Frame Frame	18 x 77 x 122 18 x 108 x 12 98 x 40 x 195	331 68 038† 200 09 223† 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 Tension disc	D 10 x 2 D 25 x 3	221 02 036† 401 57 311†		
C9	1	1	1	1	Capscrew	M 6 x 20	201 03 103†		
C10	1	1	1	1	Oil case Oil case Oil case Oil case	170 x 212 x 183 170 x 212 x 245 246 x 305 x 234 324 x 305 x 234	200 09 341 200 09 347 200 09 343 200 09 349	Doesn't include sight glass assembly.	
C11	1	1	1	1	Flat gasket, oil case Flat gasket, oil case	170 x 112 x 0.5 235 x 287	200 10 737† 200 10 741†		
C12	1	1	1	1	Handle Eye bolt	DIN 7728 M 8, DIN 580	281 53 012 201 13 101		
C12A	1	1	1	1	Thermal switch Thermal switch	4 pol. 50 V, 6 A	200 09 739 200 09 740		
C13	1	1	1	1	Flat gasket Flat gasket	170 x 202 x 1.5 303 x 230 x 2	200 10 736* 200 10 743*		
C14	1	1	1	1	Motor mount Motor mount	170 x 202 x 25 303 x 235 x 38	200 09 157 200 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			O-ring	28 x 5	Viton	239 70 506*	
			2		O-ring	42 x 5	Viton	239 70 516*	
C17	1	1			Dirt trap	KF 25	Steel	411 70 206	
			1		Dirt trap	KF40	Steel	411 70 121	
C18	2	2			Connecting port	DN 25	Cast Aluminum	193 01 618	
			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		O-ring	80 x 3	Viton	239 70 223*	
C20	1	1			Valve disc	D 33 x 12	Viton/Steel	401 59 004	
			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		Piston	D 11.7 x 51	stl	321 06 155	
C22	6	6			Cylinder screw	M6 x 70, DIN 912		201 03 011	
			6		Cylinder screw	M8 x 125, DIN 912		201 03 722	
C23	4	4			Foot	D 25 x 18	Rubber	348 61 037	
			4		Foot	D 25 x 18	Rubber	370 52 204	
C24	4				Tie rod	M 6 x 168	Steel	101 20 007†	
		4			Tie rod	M 6 x 230	Steel	101 20 009†	
			4		Tie rod	M 8 x 224	Steel	101 20 011†	
				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		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).