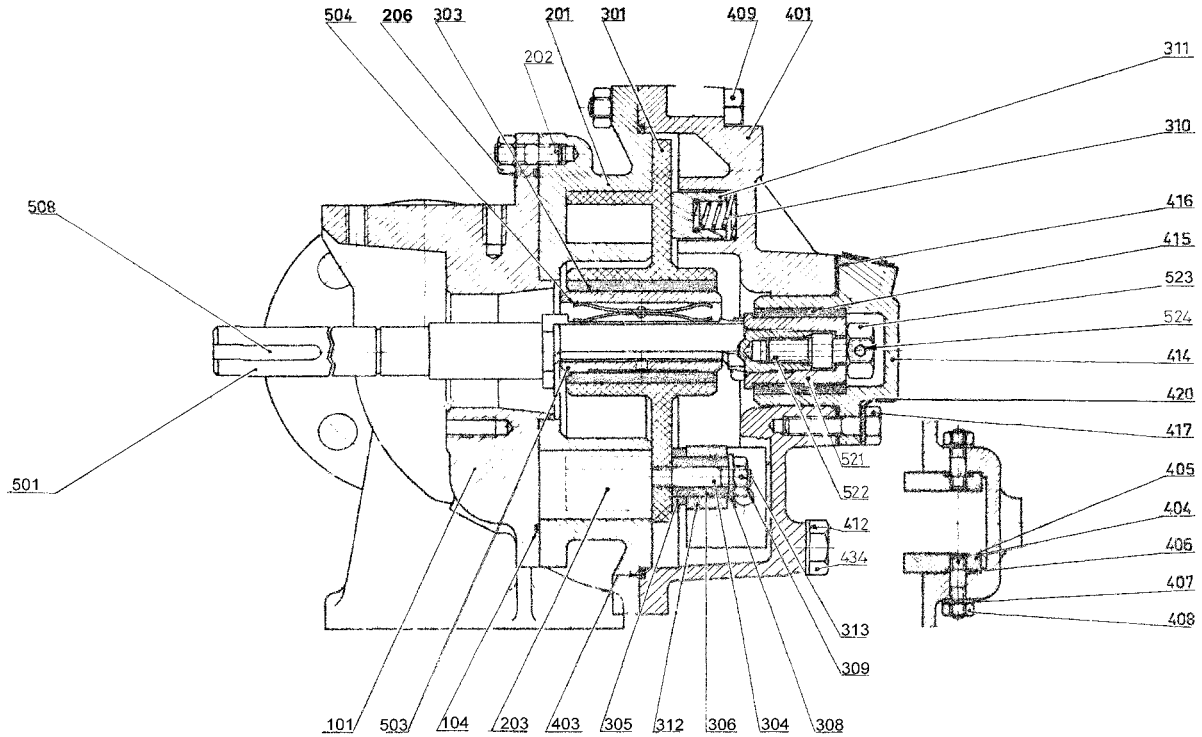


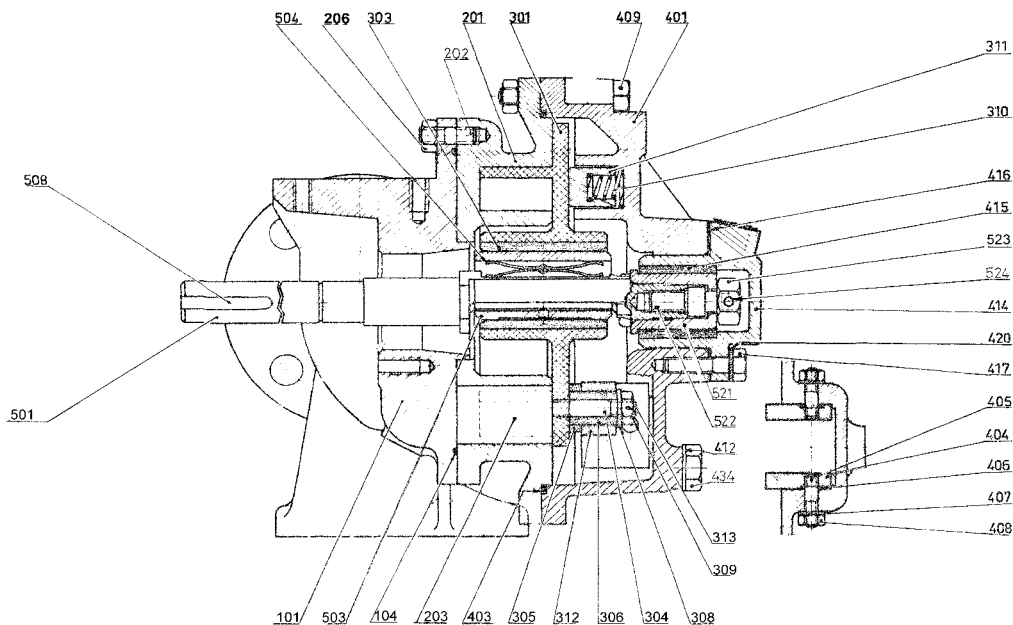
(See Instructions 1003-C00 for Installation, Operation and Maintenance)

Section	1003
Effective	July 2004
Replaces	



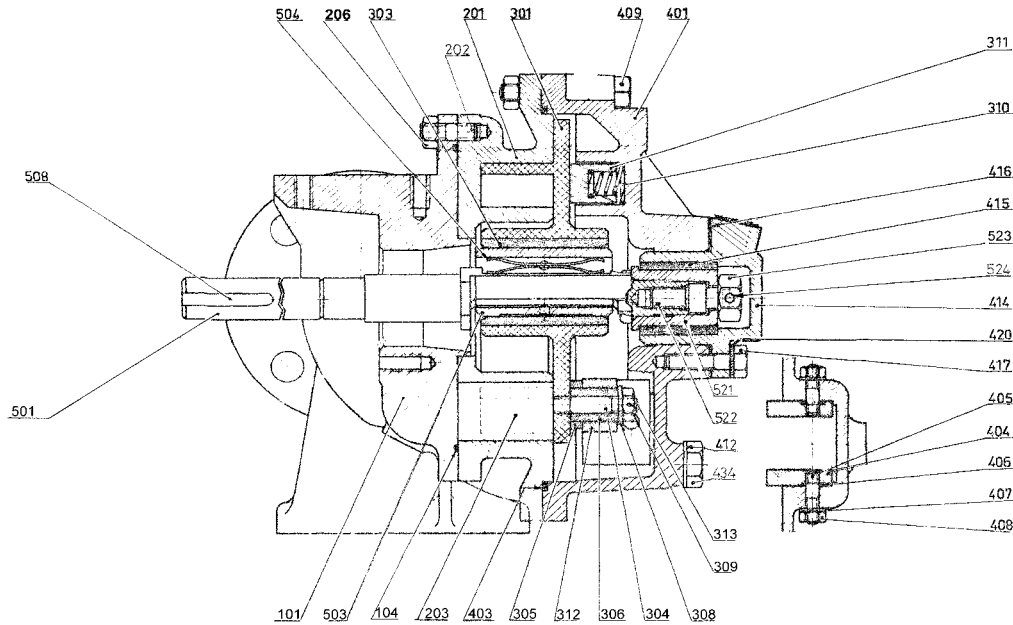
Reference			Description	Quantity		ARTICLE CODE		Wear parts
Ass.	Part	Available		Order	In Pump	AF O	AF I	
98		◆	<b>Full set of screws</b>	1		300477.00		
	202		Stud		(8)			
	206		Nut		(8)			
	409		Screw		(6)			
	409a		Nut		(6)			
	417		Screw		(4)			
	420		Washer		(4)			
99		◆	<b>Full set of seals - VITON®</b>	1		300488.00		
99		◆	<b>Full set of seals - VITON® (Heating jacket)</b>	1		305184.00		
99		◆	<b>Full set of seals - EPDM</b>	1		300483.00		
	104		Gasket		(1)			
	403		Front cover seal		(1)			
	406		Seal		(2)			
	407		Washer		(2)			
	416		Gasket		(1)			
	1002		Seal		(1)			

(◆) Sets of parts or (▲) parts available to order



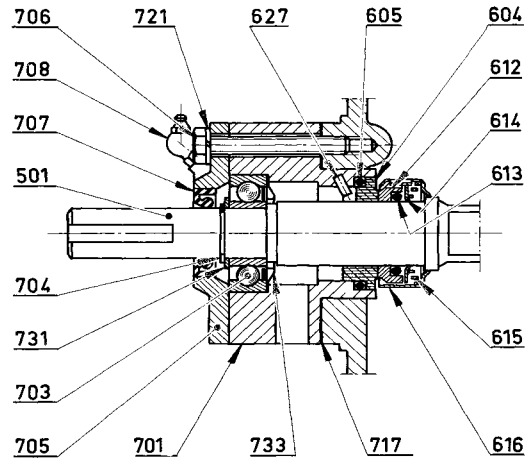
Reference			Description	Quantity		ARTICLE CODE		Wear parts
Ass.	Part	Available		Order	In Pump	AF O	AF I	
100	101	◆	<b>Main body, complete</b>	1		300445.00	300446.00	
	817	◆	Main body		(1)			
	813		Mounting kit	1		300447.00		
	814		Nut		(2)			
	815		Stud		(2)			
200	201	◆	<b>Cylinder, complete</b>	1		300448.00	300449.00	●
	202		Cylinder		(1)			
	203	▲	Stud		(8)			
	206		Bulkhead	1		201360	201361	
300		◆	<b>Complete piston - Bronze bushing</b>	1		300451.00	300455.00	●
		◆	<b>Complete piston - Carbon bushing</b>	1		308079.00	307667.00	●
		◆	<b>Complete piston (drilled) - Bronze bushing</b>	1		310766.00	310770.00	●
		◆	<b>Complete piston (drilled) - Carbon bushing</b>	1		310767.00	310769.00	●
	301		Piston		(1)			
	303	▲	Piston bushing (bronze)	1		201367		●
	303	▲	Piston bushing (carbon)	1		211653		●
	315		Screw (for drilled piston)		(1)			
	398	◆	Slide block, complete	1		300456.00	300457.00	
	304		Block pin		(1)			
	305		Abutment		(1)			
	308		Washer		(1)			
	309		Nut		(1)			
	307	◆	Slide block + pin + bushing	1		300459.00	300460.00	●
	306		Bushing		(1)			
312		Slide block		(1)				
313		Pin		(1)				
399		◆	<b>Guide block, complete</b>	1		300462.00	300463.00	
	310		Spring		(3)			
	311		Piston rear - support		(3)			

(◆) Sets of parts or (▲) parts available to order



Reference			Description	Quantity		ARTICLE CODE		Wear parts
Ass.	Part	Available		Order	In Pump	AF O	AF I	
400		◆	Complete front cover - VITON®	1		300484.00	300485.00	
460		◆	Complete front cover with jacket	1		305181.00	305182.00	
400		◆	Complete front cover - EPDM	1		300479.00	300480.00	
	401		Front cover		(1)			
	461		Jacketed front cover		(1)			
	402	◆	Front bushing set - VITON®	1		300486.00	300487.00	•
	402	◆	Front bushing set - Teflon encapsulated VITON®	1		300492.00	305183.00	•
	402	◆	Front bushing set - EPDM	1		300481.00	300482.00	•
	404		Guide		(2)			
	405		Stud		(2)			
	406		Seal		(2)			
	407		Washer		(2)			
	408		Nut		(2)			
	411	◆	Front cover drain plug + seal	1		300036.00	300037.00	
	412		Seal		(1)			
	434		Drain plug		(1)			
	403	▲	Front cover seal - VITON®	1			200834	
	403	▲	Front cover seal - EPDM	1			200895	
413		◆	Front cover bearing complete - Bronze bushing	1		312633.00	312635.00	
413		◆	Front cover bearing complete - Carbon bushing	1		308080.00	308297.00	
	414		End-plate bearing		(1)			
	415	▲	Bearing bushing - Bronze	1			201388	•
	415	▲	Bearing bushing - Carbon	1			211654	•
	416		Gasket		(1)			
	417		Screw		(4)			
	420		Washer		(4)			
500		◆	Shaft Blocdir complete	1		300497.00	300498.00	
	501	▲	Shaft	1		219465	219466	
	503	▲	Piston bearing	1		203509	203510	•
	508	▲	Key	1			203854	
	504	▲	Spring	1			201397	
	515	◆	Complete sleeve	1		300501.00	300502.00	•
	521		Sleeve		(1)			
	522		Screw		(1)			
	523		Nut		(1)			
	524		Pin		(1)			

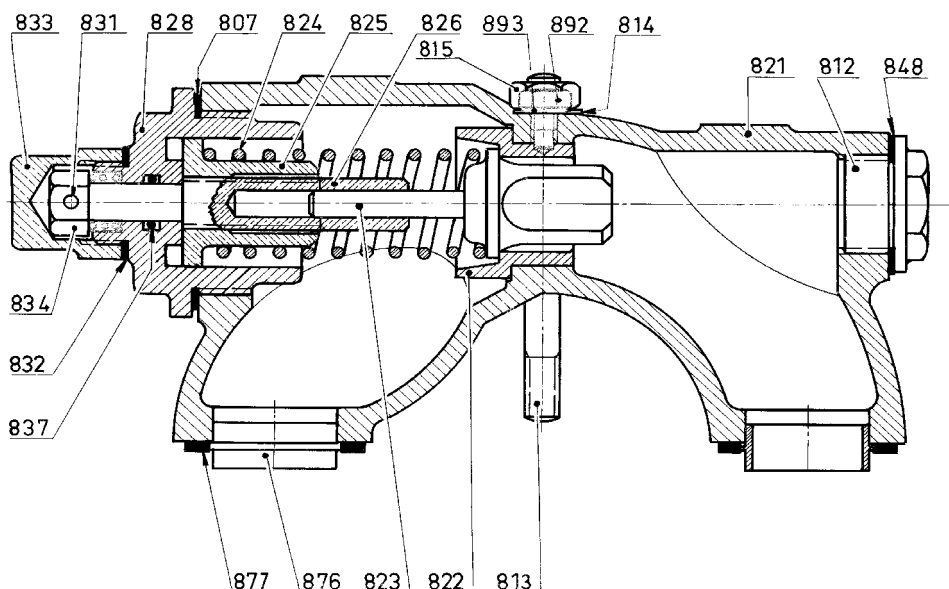
(◆) Sets of parts or (▲) parts available to order



Reference			Description	Quantity		ARTICLE CODE		Wear parts
Ass.	Part	Available		Order	In Pump	AF O	AF I	
600		◆	Mechanical seal - Bloccdir C/ VT	1		300373.00		●
600		◆	Mechanical seal - Bloccdir B/ VT	1		300387.00		●
600		◆	Mechanical seal - Bloccdir F/ VT	1		300388.00		●
600		◆	Mechanical seal - Bloccdir CT/CT VT	1		302946.00		●
600		◆	Mechanical seal - Bloccdir C/ CVT	1		307531.00		●
600		◆	Mechanical seal - Bloccdir B/ CVT	1		307533.00		●
600		◆	Mechanical seal - Bloccdir F/ CVT	1		307535.00		●
600		◆	Mechanical seal - Bloccdir CT/CT CVT	1		308261.00		●
	610	◆	Stationary seal face complete - Bloccdir C VT	1		300374.00		●
	610	◆	Stationary seal face complete - Bloccdir B VT	1		300389.00		●
	610	◆	Stationary seal face complete - Bloccdir F VT	1		300390.00		●
	610	◆	Stationary seal face complete - Bloccdir CT VT	1		302943.00		●
	610	◆	Stationary seal face complete - Bloccdir C CVT	1		304602.00		●
	610	◆	Stationary seal face complete - Bloccdir B CVT	1		304603.00		●
	610	◆	Stationary seal face complete - Bloccdir F CVT	1		304604.00		●
	610	◆	Stationary seal face complete - Bloccdir CT CVT	1		308201.00		●
	604		Stationary seal face		(1)			
	605		Seal		(1)			
	697	◆	Rotating part - Bloccdir VT	1		300375.00		●
	697	◆	Rotating part - Bloccdir CVT	1		304614.00		●
	697	◆	Rotating part - Bloccdir CT VT	1		302945.00		●
	697	◆	Rotating part - Bloccdir CT CVT	1		308202.00		●
	612		Seal housing		(1)			
	613		Seal		(1)			
	614		Spring guide		(1)			
	615		Spring		(1)			
	616		Cage		(1)			
	619		Seal mounting tool (for CVT)		(1)			
698		◆	Full set of mounting screws	1		300043.00		
	706		Screw		(4)			
	721		Washer		(4)			
699		◆	Mechanical seal gasket set - VITON®	1		300513.00		
699		◆	Mechanical seal gasket set - CVT	1		305139.00		
	605		Seal		(1)			
	613		Seal		(1)			
	619		Seal mounting tool (for CVT)		(1)			
700		◆	Ball bearings complete	1		300503.00   300504.00		
	627	▲	Pin	1		201139		
	701		Bearing cage		(1)			
	703	▲	Ball bearing	1		212314		●
	705		Bearing cover		(1)			
	706		Screw		(4)			
	708		Grease nipple		(1)			
	721		Washer		(4)			
	797	◆	Ball bearing washers and gasket set	1		300505.00   300506.00		
	704		Circlip		(1)			
	707		Lip seal		(1)			
	717		Cage seal		(1)			
	731		Washer		(2)			
	733		Protection circlip		(1)			

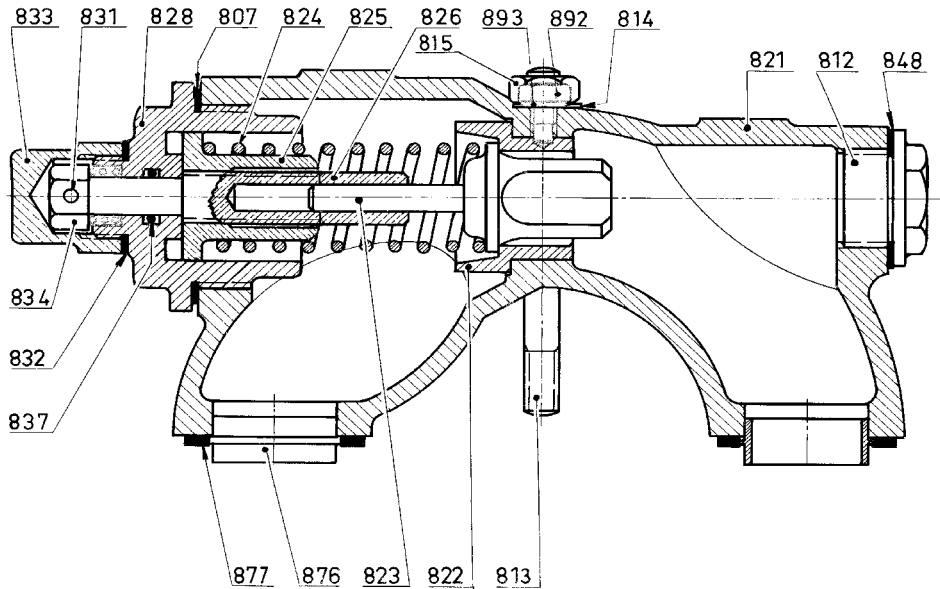
C - Carbon : F - Cast Iron : B - Bronze : CT - Tungsten Carbide : VT - Viton® : CVT - Teflon encapsulated Viton®

(◆) Sets of parts or (▲) parts available to order



Reference			Description	Quantity		ARTICLE CODE		Wear parts
Ass.	Part	Available		Order	In Pump	AF O	AF I	
820		◆	Bypass C/3 complete - VITON®	1		302508.00	308581.00	
820		◆	Bypass C/3 complete - EPDM	1		306934.00	308582.00	
820		◆	Bypass C/4 complete - VITON®	1		306232.00	308585.00	
820		◆	Bypass C/4 complete - EPDM	1		306935.00	308586.00	
	870	◆	Bypass body complete	1		300559.00	300560.00	
	812		Plug		(1)			
	821		Bypass body		(1)			
	848		Seal		(1)			
	871		Plug		(2)			
	872		Seal		(2)			
	824	▲	Spring n°3	1			201182	
	824	▲	Spring n°4	1			201183	
	868	◆	Seat (only available in construction I)				300562.00	
	822		Valve seat		(1)			
	892		Seal		(1)			
	893		Screw		(1)			
	869	◆	Bypass cap and gasket	1			300541.00	
	832		Seal		(1)			
	833		Cap		(1)			
	878	◆	Centering set	1		300539.00	300540.00	
	876		Centering piece		(2)			
	877		Centering gasket		(2)			
	897	◆	Adjusting screw/valve set - VITON®	1		302506.00	306997.00	•
	897	◆	Adjusting screw/valve set - EPDM	1		306924.00	308574.00	•
	807		Seal		(1)			
	825		Spring guide		(1)			
	826		Adjusting screw		(1)			
	828		Nut		(1)			
	829		Spring		(1)			
	831		Pin		(1)			
	834		Adjustment nut		(1)			
	837		Seal		(1)			
	823	▲	Compensated valve	1			201447	
	899	◆	Bypass gasket set - VITON®	1			303248.00	
	899	◆	Bypass gasket set - EPDM	1			300550.00	
	807		Seal		(1)			
	829		Spring		(1)			
	831		Pin		(1)			
	832		Seal		(1)			
	837		Seal		(1)			
	846		Seal		(1)			
	848		Seal		(1)			
	877		Centering gasket		(2)			

(◆) Sets of parts or (▲) parts available to order



Reference			Description	Quantity		ARTICLE CODE		Wear parts
Ass.	Part	Available		Order	In Pump	AF O	AF I	
VARIATIONS								
			<b>COMPLETE COMPENSATED DOUBLE BYPASS</b>	The body is different to the standard compensated bypass. The other parts are the same but doubled				
820a		◆	Double bypass C/3 complete - VITON®	1		306942.00	308597.00	
820a		◆	Double bypass C/3 complete - EPDM	1		306943.00	308598.00	
820a		◆	Double bypass C/4 complete - VITON®	1		306945.00	306996.00	
820a		◆	Double bypass C/4 complete - EPDM	1		306946.00	308600.00	
	870a		Double bypass body complete	1		300569.00	300570.00	
	821a	◆	Double bypass body		(1)			
849		◆	<b>Complete stirrup</b>	1		301647.01		
	852		Stirrup		(1)			
	853		Stud or Screw		(2)			
	854		Plug		(2)			
	855		Seal		(2)			
To mount a bypass in place of a stirrup will require								
	817	◆	Mounting kit	1		300447.00		
	813		Nut		(2)			
	814		Stud		(2)			
	815		Washer		(2)			

(◆) Sets of parts or (▲) parts available to order

Keep this parts lists with Installation, Operation and Maintenance Instructions

Viton® and Teflon® are registered trademarks of E.I. DuPont.

To order the required spare parts, indicate the appropriate CUM numbers

**blackmer**  
PEOPLE PROVIDING FLOW TECHNOLOGY WORLDWIDE™

ZI la Plaine des Isles - 2 Rue des Caillottes 89000 AUXERRE - FRANCE

Tél. : +33 3.86.49.86.40 or +33 3 86.49.87.09 - Fax : +33 3.86.49.87.17

E-Mail : [contact@blackmer-mouvex.com](mailto:contact@blackmer-mouvex.com) Internet : [www.blackmer.com](http://www.blackmer.com)