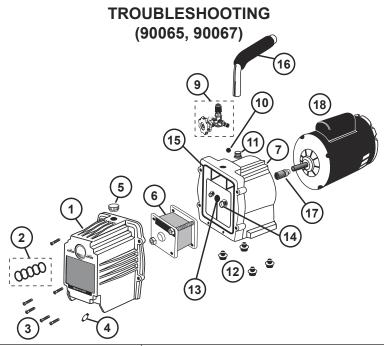


2 STAGE VACUUM PUMP



	ISSUE	SOLUTION	
1.	Pump is locking up	 Change cartridge for 5 CFM pump (part # 90165-R) Change cartridge for 7.5 CFM pump (part # 90167-R) Possible motor replacement (5 CFM pump part # 90052-010R1-220V) (7.5 CFM pump part # 90057-01-R1-220V) 	
2.	Pump is leaking	Change seals Shaft seal (part # 90052-06) Smaller O-ring on housing (part # 90052-23) Pump cover gasket with lip (part # 90052-13R)	
3.	Motor spins with no vacuum	Replace coupler (part # 90062-02R)	

REPLACEMENT PARTS							
REF#	DESCRIPTION	PART #	REF#	DESCRIPTION	PART #		
1.	PUMP COVER 5 CFM	90062-12	10.	FLOAT BALL	90052-20		
	PUMP COVER 7.5 CFM	90067-12	11.	GAS BALLAST FITTING W/O-RING	90052-29		
2.	SIGHT GLASS ASSEMBLY	90052-14	12.	RUBBER FOOT WITH BOLT	90052-38		
3.	COVER SOCKET CAP (1 pc.)	90052-33	13.	SHAFT SEAL	90052-06		
4.	DRAIN VALVE	90052-28	14.	SMALLER O-RING ON HOUSING	90052-23		
5.	OIL FILL PLUG W/O-RING	90052-30	15.	PUMP COVER GASKET WITH LIP	90052-13R		
6.	CARTRIDGE KIT 5 CFM / 142 LIT/MIN	90165-R	16.	PUMP HANDLE WITH GRIP	90062-40		
	CARTRIDGE KIT 7.5 CFM / 213 LIT/MIN	90167-R	17.	SHAFT COUPLER ASSEMBLY	90062-02-R		
7.	PUMP HOUSING WITH GUIDE	90062-11-R	18.	MOTOR-115V (5 CFM PUMPS) 1/3HP	90052-01-R1		
8.	INTAKE VALVE ASSEMBLY (2 STAGE)	90056-01		MOTOR-115V (7.5 CFM PUMP) 1/2HP	90057-01-R1		
9.	INTAKE TEE (SINGLE STAGE)	90052-31	(TO SPE	(TO SPECIFY 220V MOTORS, ADD -220 TO PART #)			

LIMITED WARRANTY INFORMATION

Vacuum Pumps are warrantied against defects in material and workmanship for a period of one year. This warranty does not cover failure due to abuse, improper usage, or progressive wear and tear. Warranty becomes valid to the original owner and is effective on the purchase date. WARRANTY SERVICE IS PROVIDED THROUGH THE FACTORY ONLY.

Please contact the service department toll free for parts, service concerns, or to obtain a return authorization number for warranty repair.