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REASONS YOU NEED BOILER FEED UNITS

Purpose of Boiler Feed Unit: add feed water to the boiler when water level in the boiler drops. The boiler level controller activates the pumps on the boiler feed unit. City water make-up added to system by feed valve on boiler feed unit.	
Reasons You Need a Boiler Feed Unit:	
• Avoid <u>overflow</u> of boiler:	Today's high efficiency boiler typically has less water capacity than the older, less efficient boilers. By returning excess condensate into and storing it in the boiler feed unit, instead of directly in the boiler, overflow can be avoided.
• Avoid <u>temperature shock</u> to boiler:	The influx of a large quantity of colder, make-up water to boiler will lower the water temperature in the boiler sufficiently to disrupt the output of steam.
• Reduce overall <u>operating costs</u> :	(1) Pumps only need to run when boilers need water to maintain the proper water level. (2) The "high quality" (i.e., chemically treated and higher temperature) condensate can be reused and blended with the required make-up water.
• Reduce <u>corrosion</u> in the boiler:	Properly sizing the boiler feed receiver, for both the system lag time and Spring/Fall mixed demand cycles, allows adequate storage of high quality condensate. Reusing high quality condensate in lieu of make-up water reduces corrosion in boiler, as well as in the piping.
• Increase <u>operational flexibility</u> :	Make-up water and water treatment chemicals can be added, as needed.

SHIPCO® COMPATIBLE BOILER FEED MODELS¹	MAJOR BOILER MANUFACTURERS																								
	Burnham Models					Peerless Models							Utica Models	Weil-McLain Models				H. B. Smith “Steam” Models²							
	Independence Series	5B Series	V7 Series	V9 Series	V11 Series	WVB Series	EC/ECT Series	SC/SCT Series	LC/LCE Series	61 Series	62 Series	211A Series	J Series	LGB Series	78 Series	88 Series	94 Series	GB250 Series	GB300 Series	19A Series	28A Series	3500A Series	4500A Series	6500A Series	
30-EMV* or 49-EMH#	IN3, IN4, IN5	K-5006B	V-73	V-903		WVB-03	EC/ECT-03	SC/SCT-05	LC/LCE-04	61-03	62-09	211A-04	J300BI	LGB-6S	378-SF			GB250-5L	GB300-S-5	19A-S-3	28A-S-4				
	IN6, IN7, IN8,	K-5007B		V-904		WVB-04	EC/ECT-04	SC/SCT-06		61-04	62-10		J399BI	LGB-7S	478-SF			GB250-5H	GB300-S-6	19A-S-4					
	IN9, IN10	K-5008B		V-905			EC/ECT-05	SC/SCT-07		61-05	62-11		J400BI		578-SF			GB250-6	GB300-S-7	19A-S-5					
	IN11, IN12	K-5009B					EC/ECT-06	SC/SCT-08		61-06	62-12		J500BI					GB250-7	GB300-S-8	19A-S-6					
	PIN3PV, PIN4PV PIN5PV, PIN6PV	K-5010B						SC/SCT-09		61-07	62-13		J600BI					GB250-8	GB300-S-9	19A-S-7					
										61-08	62-14		J700BI					GB250-9	GB300-S-10						
										62-15								GB300-S-11							
																		GB300-S-12							
49-EMH# or 50-EMV*		K-5011B	V-74	V-906	V-1104			SC/SCT-10	LC/LCE-05			211A-05	J800BI	LGB-8S	678-SF	488R-SF			GB300-S-13	19A-S-8	28A-S-5	3500A-S-6			
		K 5012B	V-75	V-907	V-1105				LC/LCE-06			211A-06	J900BI	LGB-9S	778-SF	488-SF			GB300-S-14	19A-S-9					
		K-5013B	V-76	V-908									J1000BI	LGB-10S	878-SF			GB300-S-15							
		K-5014B											J1100BI					GB300-S-16							
		K-5015B											J1200BI					GB300-S-17							
		K-5016B																							
71-EMH# or 100-EMV*		K-5017B	V-77	V-909	V-1106				LC/LCE-07			211A-07	J1300BI	LGB-11S	978-SF	588-SF			GB300-S-18	19A-S-10	28A-S-6	3500A-S-7			
		K-5018B	V-78S	V-910	V-1107				LC/LCE-08			211A-08	J1400BI	LGB-12S	1078-SF	688-SF			GB300-S-19	19A-S-11	28A-S-7	3500A-S-8			
		K-5019B		V-911					LC/LCE-09				J1500BI	LGB-13S	1178-SF			GB300-S-20	19A-S-12	28A-S-8	3500A-S-9				
		K-5020B											J1600BI		1278-SF			GB300-S-21		28A-S-9					
		K-5021B											J1700BI												
	K-5022B																								
100-EMV* or 117-EMH#		K-5024B		V-912	V-1108				LC/LCE-10			211A-09		LGB-15S		788-SF					28A-S-10	3500A-S-10	4500A-S-10		
		K-5026B			V-1109				LC/LCE-11			211A-10		LGB-16S		888-SF					28A-S-11	3500A-S-11			
					V-1110				LC/LCE-12			211A-11		LGB-17S		988RF-SF					28A-S-12	3500A-S-12			
									LC/LCE-13			211A-12		LGB-18S							28A-S-13				
														LGB-19S											
117-EMH# or 200-EMV*					V-1111				LC/LCE-14			211A-13		LGB-20S			894-SF				28A-S-14	3500A-S-13	4500A-S-11		
									LC/LCE-15			211A-14		LGB-21S							28A-S-15				
														LGB-22S						28A-S-16					
														LGB-23S						28A-S-17					
																				28A-S-18					
183-EMH# or 200-EMV*									LC/LCE-16			211A-15					994-SF					3500A-S-14	4500A-S-12		
									LC/LCE-17			211A-16					1094-SF					4500A-S-13			
									LC/LCE-18			211A-17					1194-SF					4500A-S-14			
									LC/LCE-19			211A-18					1394-SF					4500A-S-15			
									LC/LCE-20			211A-19										4500A-S-16			
								LC/LCE-21			211A-20														
								LC/LCE-22																	
								LC/LCE-23																	
200-EMV* or 209-EMH#									LC/LCE-24			211A-21											4500A-S-17		
												211A-22										4500A-S-18			
												211A-23													
												211A-24													
292-EMH#																							4500A-S-19	6500A-S-15	
																						4500A-S-20	6500A-S-16		
																						4500A-S-21			
																						4500A-S-22			

Compatible
Boiler Feed Models
Selection Chart

¹ SHIPCO® unit sized to supply approximately twenty minutes of steaming time of water storage. Sizing based upon boiler capacity.
Each SHIPCO® unit typically includes:
o 1/3 horsepower, 3500 RPM, 115/230/1/60 motor, for either simplex or duplex styles
o a gauge glass assembly with shut-off cocks and glass protection rods
o all simplex units designed to allow for a second pump/motor assembly to be added later
o industry standard 56J frame motors (available anywhere if replacement required)
o panel not generally required since 1/3 horsepower, single-phase pump can be wired into feeder on boiler directly
o mechanical seals rated 250° F

² Mapping of H. B. Smith boilers based on steam EDR (sq. ft.) of boiler

* EMV - vertical style tank
EMH - horizontal style tank