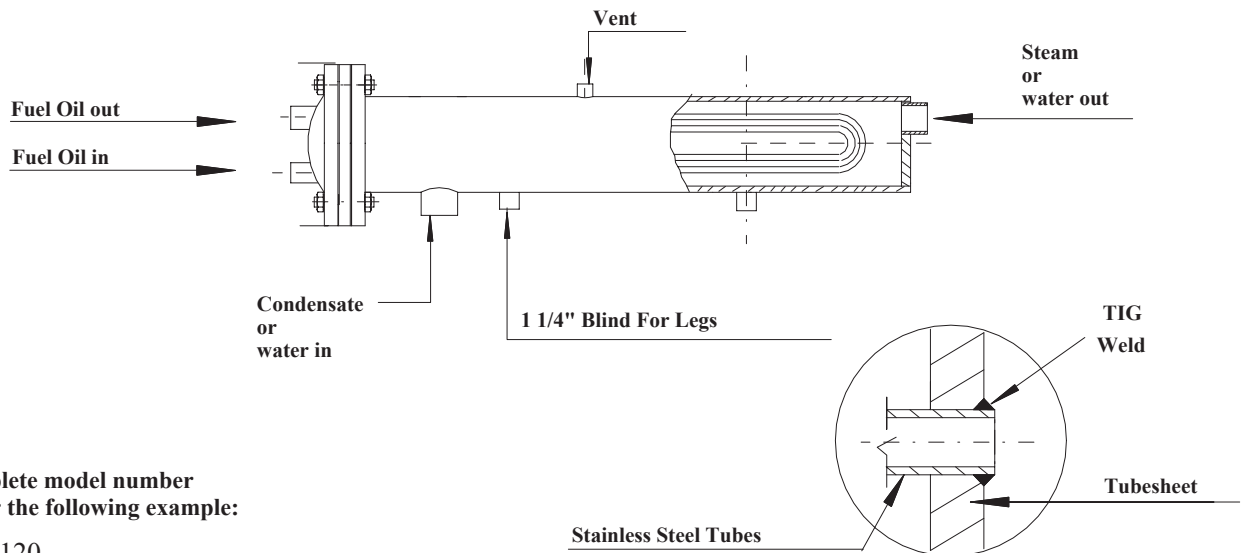


## Multipass "U-Tube" Fuel Oil Preheaters Series "ST"

The Alstrom Multipass "U-Tube" preheaters series "ST" are used for preheating fuel oil with steam or boiler water. Fuel oil flows through the tubes and steam or water passes through the shell. The major features of this construction are the removable tube bundle for inspection or servicing, and the elimination of strains in the tubing due to free expansion. The Multipass design allows the selection of 2, 4 or 6 tube passes for the maximal fuel oil velocity in the tubes within the permitted pressure drop. When boiler water is the heating medium the low shell side pressure drop increases performance on a gravity circulation hook-up by increasing boiler flow rate and allowing the heater to keep its full rating.

<b>Typical Applications</b>	<b>To have the capacity to heat _____ ( gpm ) ( gph ) of # _____ fuel oil in the tubes</b>
Fuel oil heaters for water boilers	from _____ F to _____ F using _____ of _____, entering at _____
Low pressure drop provides better circulation of boiler water	<b>Unit to be constructed in accordance with ASME requirements. ASME Stamp is ( not ) required.</b>
	<b>Unit to have no more than _____ ft. of length and _____ psi pressure drop in the shell and _____ psi in the tubes.</b>



Complete model number as per the following example:

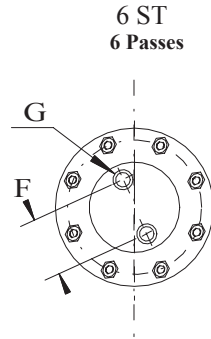
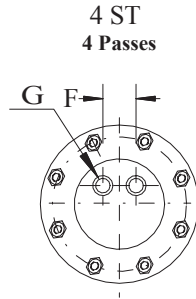
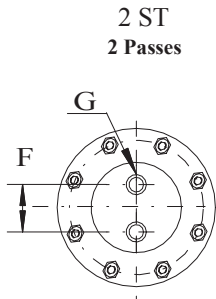
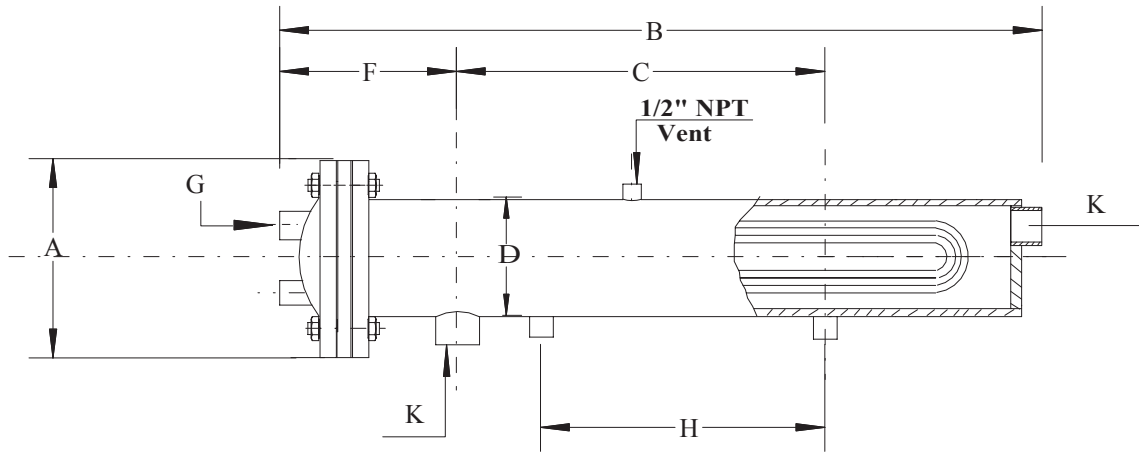
6 ST 120  
 ↑     ↑     ↑  
 Number of tube passes    "ST" Series    Nominal size

Optional stainless steel tubes have superior mechanical properties and corrosion resistance. TIG weld provides the best tube to tubesheet joint (ASME joint efficiency equals 1)

Design Pressure & Temperature	Side	Standard	Customized
	Shell	150 psi @ 400 F	
Tube	150 psi @ 400 F		
Head	Carbon Steel, Stainless Steel, Cast Iron		
Shell	Carbon Steel, Stainless Steel		
Tubesheet	Carbon Steel, Stainless Steel		
Tubes O.D. 1/2", 5/8", 3/4"	Carbon Steel, Stainless Steel		

- \* - Various materials and working conditions can be provided.
- Legs can be supplied when specified.
- Space equal to or greater than dimension "B" should be provided for removal of tube bundle.
- \* - All Heat Exchangers are designed and manufactured according to ASME Code, Section VIII, Div.1. ASME U-1 Form, Stamp, and N.B. Number are provided upon request for an additional cost.
- \* - All heaters have a one year guarantee against failure caused by materials or workmanship, but not against gasket failure or damage caused by corrosion, water hammer, fouling, sealing, excessive pressure or temperature, incorrect installation or other factor beyond the manufacturer's control.

## Multipass "U-Tube" Fuel Oil Preheaters Series "ST"



Dimensions in inches and weights in lbs.

ST	Dimensions (inches)							2 ST		4 ST		6 ST		K	WGT
	A	B	C	D	E	H	G	F	G	F	G	F			
50	9-1/4	46-3/4	40-3/4	6-5/8	6	20	2	4-1/2	1-1/4	2-7/8	1-1/4	1-1/4	2	101	
70	9-1/4	51-3/4	45-3/4	6-5/8	6	26	2	4-1/2	1-1/4	2-7/8	1-1/4	1-1/4	2	110	
90	9-1/4	61-3/4	55-3/4	6-5/8	6	36	2	4-1/2	1-1/4	2-7/8	1-1/4	1-1/4	2	122	
120L	9-1/4	72-1/4	67-3/4	6-5/8	6	36	2-1/2	4-1/2	1-1/2	2-7/8	1-1/2	1-1/4	2-1/2	156	
120	12	62-1/2	54-1/2	8-5/8	8	36	2-1/2	4-1/2	2	3-7/8	2	5-7/8	2-1/2	178	
150	12	62-1/2	54-1/2	8-5/8	8	36	2-1/2	4-1/2	2	3-7/8	2	5-7/8	3	185	
180	12	62-1/2	54-1/2	8-5/8	8	36	2-1/2	5	2	3-7/8	2	5-7/8	3	192	
250	12	71-1/2	63-1/2	8-5/8	8	42	2-1/2	5	2	3-7/8	2	5-7/8	3	221	
320	12	86-1/2	78-1/2	8-5/8	8	57	2-1/2	5	2	3-7/8	2	5-7/8	3	254	
400	12	99	89-1/2	8-5/8	9-1/2	70	2-1/2	5	2	3-7/8	2	5-7/8	3	335	
480	12	112	102-1/2	8-5/8	9-1/2	83	2-1/2	5	2	3-7/8	2	5-7/8	3	470	
600	15	110	100	10-3/4	10	80	3	5-7/8	2-1/2	4-1/4	2-1/2	5-7/8	3	653	

Customized Or Replacement Fuel Oil Preheater