Manufacturing no.	30101-26870	Date 980224 CK
Plate Heat Exchanger type Drawing no.	M6-MFMC 32200-1861	Quantity 1
Customer BIMP BIHAC BOSNIA AND HERZOGOVINA		Ref.
Agent TL SERVICE GMBH Tyskland		Ref. BH-97062-01.-01
Supplier ALFA-LAVAL THERMAL LUND		Ref. T380282 TO nr.380282

Plates with parallel flow.

The plate pack is tightened to 763 mm

Always observe plate from its gasket side. A ten figure part number plus one letter are stamped on the upper part of the plate.

The plates are assembled, counting from the frame plate to the pressure plate, in sequence stated below with the gasket side facing the frame plate.

For information about installation, running, cleaning etc. see the instruction book.

Measurements (see drawing) mm						Net weight
						358 kg
A =	763	AA =	141	AF =	71	
LT=	1400	AB =	125			Liquid volume
		AC =	107			49 l
		AD =	160			
C =	1695	AE =	160			Design pressure
						10.0 BAR

Connection standard
SMS 51 MM

Remarks

Test pressure : 13,0 BAR
Design temp : 110 C

Bolts : M20

Section no 1 /AA----------		
Media	->MILK	=>HOT WATER 1
Flow rate	5000 KG/H	11100 KG/H
Temp. program	65 to 95 C	97 to 84 C
Pressure drop	15 KPA	70 KPA
Liquid volume	6,0 l	6,4 l
Location of connections		
inlet	A11V	S4
outlet	S1	A14
Material in connections		
Plates material	AISI 316	
thickness	0.50 mm	
Gasket material	NITRILE	CLIP-ON
Heat transfer surface	3,92 m2	
Plate grouping	2*7MH	

	1*8+1*7ML	
Section no 2 /AB----------		
Media	->MILK	=>HOT WATER 2
Flow rate	5000 KG/H	13200 KG/H
Temp. program	55 to 65 C	68 to 64 C
Pressure drop	10 KPA	45 KPA
Liquid volume	3,0 l	3,4 l
Location of connections		
inlet	A22	A14V
outlet	A11	A23V
Material in connections		
Plates material	AISI 316	
thickness	0.50 mm	
Gasket material	NITRILE	CLIP-ON
Heat transfer surface	1,96 m2	
Plate grouping	1*7MH	

	1*8ML	
Section no 3 /AC----------		
Media	->MILK	=>MILK
Flow rate	5000 KG/H	5000 KG/H
Temp. program	5 to 55 C	95 to 45 C
Pressure drop	50 KPA	50 KPA
Liquid volume	2,2 l	2,2 l
Location of connections		
inlet	A31V	A23
outlet	A22V	A34P
Material in connections		
Plates material	AISI 316	
thickness	0.50 mm	
Gasket material	NITRILE	CLIP-ON
Heat transfer surface	1,26 m2	
Plate grouping	1*5H	

	1*5H	

Section no 4 /AD----------

Media	->MILK	=>WATER
Flow rate	5000 KG/H	470 KG/H
Temp. program	45 to 42 C	15 to 45 C
Pressure drop	70 KPA	1 KPA
Liquid volume	5,2 l	5,6 l
Location of connections		
inlet	A34P	A42
outlet	A43	A31
Material in connections		
Plates material	AISI 316	
thickness	0.50 mm	
Gasket material	NITRILE	CLIP-ON
Heat transfer surface	3,36 m2	
Plate grouping	3*4MH	

	2*4+1*5ML	

Section no 5 /AE----------

Media	->CREAM 30%	=>WATER
Flow rate	1500 KG/H	3000 KG/H
Temp. program	55 to 18 C	15 to 31 C
Pressure drop	25 KPA	55 KPA
Liquid volume	5,2 l	5,6 l
Location of connections		
inlet	A44	A51V
outlet	A54P	A41
Material in connections		
Plates material	AISI 316	
thickness	0.50 mm	
Gasket material	NITRILE	CLIP-ON
Heat transfer surface	3,36 m2	
Plate grouping	4*3MH	

	3*3+1*4ML	

Section no 6 /AF----------

Media	->CREAM 30%	=>ICE WATER
Flow rate	1500 KG/H	1800 KG/H
Temp. program	18 to 8 C	1 to 8 C
Pressure drop	35 KPA	20 KPA
Liquid volume	1,7 l	2,2 l
Location of connections		
inlet	A54P	T1
outlet	T4	A51
Material in connections		
Plates material	AISI 316	
thickness	0.50 mm	
Gasket material	NITRILE	CLIP-ON
Heat transfer surface	1,12 m2	
Plate grouping	2*2MH	

	1*2+1*3ML	

Section no 1 /AA-------	2		
Media		->CREAM 30%	=>HOT WATER 1
Flow rate		2500 KG/H	11100 KG/H
Temp. program		65 to 95 C	95.5 to 90 C
Pressure drop		5 KPA	70 KPA
Liquid volume		6,0 l	6,4 l
Location of connections			
inlet		A11V	S4
outlet		S1	A14
Material in connections			
Plates material		AISI 316	
thickness		0.50 mm	
Gasket material		NITRILE	CLIP-ON
Heat transfer surface		3,92 m2	
Plate grouping		2*7MH	

		1*8+1*7ML	
Section no 2 /AB-------	2		
Media		->CREAM 30%	=>HOT WATER 2
Flow rate		2500 KG/H	13200 KG/H
Temp. program		54 to 65 C	67.5 to 65.5 C
Pressure drop		2 KPA	45 KPA
Liquid volume		3,0 l	3,4 l
Location of connections			
inlet		A22	A14V
outlet		A11	A23V
Material in connections			
Plates material		AISI 316	
thickness		0.50 mm	
Gasket material		NITRILE	CLIP-ON
Heat transfer surface		1,96 m2	
Plate grouping		1*7MH	

		1*8ML	
Section no 3 /AC-------	2		
Media		->CREAM 30%	=>CREAM 30%
Flow rate		2500 KG/H	2500 KG/H
Temp. program		8 to 54 C	95 to 49 C
Pressure drop		15 KPA	15 KPA
Liquid volume		2,2 l	2,2 l
Location of connections			
inlet		A31V	A23
outlet		A22V	A34P
Material in connections			
Plates material		AISI 316	
thickness		0.50 mm	
Gasket material		NITRILE	CLIP-ON
Heat transfer surface		1,26 m2	
Plate grouping		1*5H	

		1*5H	

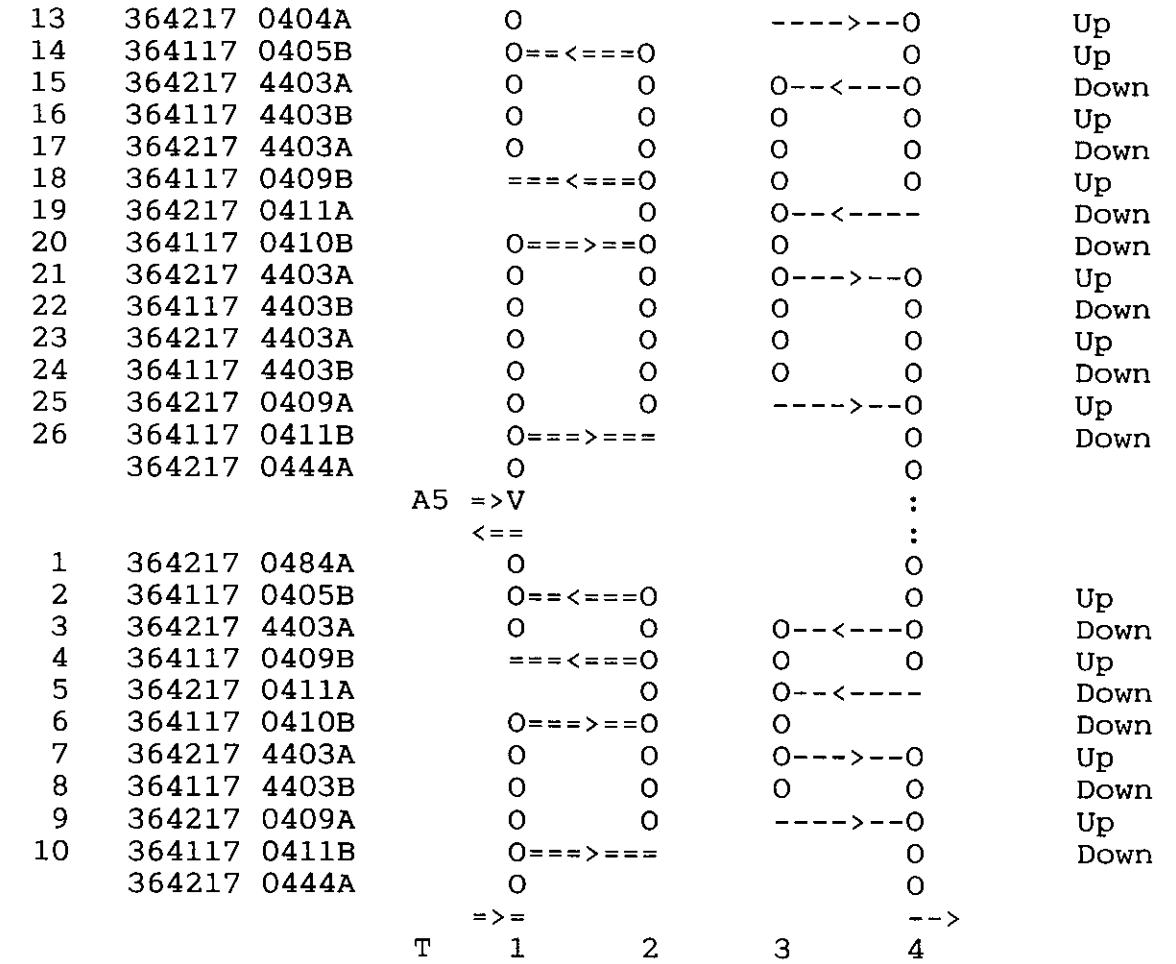
Section no 4 /AD------- 2 ----------

Media	->CREAM 30%	=>WATER
Flow rate	2500 KG/H	5100 KG/H
Temp. program	49 to 20 C	15 to 28 C
Pressure drop	25 KPA	65 KPA
Liquid volume	5,2 l	5,6 l
Location of connections		
inlet	A34P	A42
outlet	A43	A31
Material in connections		
Plates material	AISI 316	
thickness	0.50 mm	
Gasket material	NITRILE	CLIP-ON
Heat transfer surface	3,36 m2	
Plate grouping	3*4MH	

	2*4+1*5ML	

Plate no.	Plate code no.	Punched corner of the plate: upper left	lower left	lower right	upper right	Flow direction on the gasket side of the plate
		S 1	2	3	4	
		<--			=<=	
1	364217 0491B	O			O	
2	364117 0410A	O		O==<===O		Down
3	364217 4403B	O--<---O		O	O	Up
4	364117 4403A	O	O	O	O	Down
5	364217 4403B	O	O	O	O	Up
6	364117 4403A	O	O	O	O	Down
7	364217 4403B	O	O	O	O	Up
8	364117 4403A	O	O	O	O	Down
9	364217 4403B	O	O	O	O	Up
10	364117 4403A	O	O	O	O	Down
11	364217 4403B	O	O	O	O	Up
12	364117 4403A	O	O	O	O	Down
13	364217 4403B	O	O	O	O	Up
14	364117 0406A	O	O	O==<====		Down
15	364217 0404B	---<---O		O		Up
16	364117 0405A		O	O===>==O		Up
17	364217 4403B	O---><--O		O	O	Down
18	364117 4403A	O	O	O	O	Up
19	364217 4403B	O	O	O	O	Down
20	364117 4403A	O	O	O	O	Up
21	364217 4403B	O	O	O	O	Down
22	364117 4403A	O	O	O	O	Up
23	364217 4403B	O	O	O	O	Down
24	364117 4403A	O	O	O	O	Up
25	364217 4403B	O	O	O	O	Down
26	364117 4403A	O	O	O	O	Up
27	364217 4403B	O	O	O	O	Down
28	364117 4403A	O	O	O	O	Up
29	364217 0406B	O---><---		O	O	Down
30	364117 0404A	O		====>==O		Up
	364217 0451B	O			O	
		A1 ->V			==>	
		<--			V<=	
1	364217 0491B	O			O	
2	364117 0410A	O		O==<===O		Down
3	364217 4403B	O--<---O		O	O	Up
4	364117 4403A	O	O	O	O	Down
5	364217 4403B	O	O	O	O	Up
6	364117 4403A	O	O	O	O	Down
7	364217 4403B	O	O	O	O	Up
8	364117 4403A	O	O	O	O	Down
9	364217 4403B	O	O	O	O	Up
10	364117 4403A	O	O	O	O	Down
11	364217 4403B	O	O	O	O	Up
12	364117 4403A	O	O	O	O	Down
13	364217 4403B	O	O	O	O	Up
14	364117 4403A	O	O	O	O	Down

```
 15   364217 0409B        ---<---O      O       O        Up
 16   364117 0411A               O      O==<====        Down
      364217 0444B               O      O
                    A2          ->-     V=>
                                <-V     =<=
  1   364217 0484B               O      O
  2   364217 0405A               O      O===>==O        Up
  3   364217 4403B        O--->--O      O       O        Down
  4   364217 4403A        O      O      O       O        Up
  5   364217 4403B        O      O      O       O        Down
  6   364217 4403A        O      O      O       O        Up
  7   364217 4403B        O      O      O       O        Down
  8   364217 4403A        O      O      O       O        Up
  9   364217 4403B        O      O      O       O        Down
 10   364217 0409A        O      O      ====>==O        Up
 11   364217 0411B        O--->---              O        Down
      364217 0444A        O                     O
                    A3 ->V                      :
                       <==                      :
  1   364217 0484A        O                     O
  2   364117 0405B        O==<===O              O        Up
  3   364217 4403A        O      O      O--<---O        Down
  4   364117 4403B        O      O      O       O        Up
  5   364217 4403A        O      O      O       O        Down
  6   364117 4403B        O      O      O       O        Up
  7   364217 4403A        O      O      O       O        Down
  8   364117 0409B        ===<===O      O       O        Up
  9   364217 0411A               O      O--<----        Down
 10   364117 0410B        O===>==O      O               Down
 11   364217 4403A        O      O      O--->--O        Up
 12   364117 4403B        O      O      O       O        Down
 13   364217 4403A        O      O      O       O        Up
 14   364117 4403B        O      O      O       O        Down
 15   364217 4403A        O      O      O       O        Up
 16   364117 0406B        O===>===      O       O        Down
 17   364217 0404A        O             ----->--O        Up
 18   364117 0405B        O==<===O              O        Up
 19   364217 4403A        O      O      O--<---O        Down
 20   364117 4403B        O      O      O       O        Up
 21   364217 4403A        O      O      O       O        Down
 22   364117 4403B        O      O      O       O        Up
 23   364217 4403A        O      O      O       O        Down
 24   364117 4403B        O      O      O       O        Up
 25   364217 0406A        O      O      O--<----        Down
 26   364117 0404B        ===<===O      O               Up
      364217 0451A               O      O
                    A4          =>=     -->
                       <==                      -<-
  1   364217 0484A        O                     O
  2   364117 0405B        O==<===O              O        Up
  3   364217 4403A        O      O      O--<---O        Down
  4   364117 4403B        O      O      O       O        Up
  5   364217 4403A        O      O      O       O        Down
  6   364117 0409B        ===<===O      O       O        Up
  7   364217 0411A               O      O--<----        Down
  8   364117 0410B        O===>==O      O               Down
  9   364217 4403A        O      O      O--->--O        Up
 10   364117 4403B        O      O      O       O        Down
 11   364217 4403A        O      O      O       O        Up
 12   364117 0406B        O===>===      O       O        Down
```


13 364217 0404A Up
14 364117 0405B Up
15 364217 4403A Down
16 364117 4403B Up
17 364217 4403A Down
18 364117 0409B Up
19 364217 0411A Down
20 364117 0410B Down
21 364217 4403A Up
22 364117 4403B Down
23 364217 4403A Up
24 364117 4403B Down
25 364217 0409A Up
26 364117 0411B Down
364217 0444A
A5
1 364217 0484A
2 364117 0405B Up
3 364217 4403A Down
4 364117 0409B Up
5 364217 0411A Down
6 364117 0410B Down
7 364217 4403A Up
8 364117 4403B Down
9 364217 0409A Up
10 364117 0411B Down
364217 0444A
T 1 2 3 4

DATE : 980224

30101-26870 Ed. 1

Plate-req. for manuf.order: 380282 Orderno. : T380282-01

M6 M AISI 316 0.50 NITRILE CLIP-ON

PLATE NUMBER	QUANTITY
364117 0404	2
364117 0405	6
364117 0406	3
364117 0409	4
364117 0410	6
364117 0411	3
364117 4403	30
364217 0404	3
364217 0405	1
364217 0406	2
364217 0409	4
364217 0411	5
364217 0444	4
364217 0451	2
364217 0484	4
364217 0491	2
364217 4403	44
TOTAL (CHANNELPL.+ENDPL.)	119
(TRANSITION PL./DIST. SHEET)	6

MEASUREMENTS

Manufacturing no. 30101-26870 Date 980224
CK

Plate Heat Exchanger type M6-MFMC Quantity 1
Drawing no. 32200-1861

MC - orderno.
BH-97062-01.-01

Orderno.
T380282
TO nr.380282

A-MEAS.TOTAL	763 mm	TOTAL WEIGHT	358 KG
A+FREE SPACE	950 mm	TOTAL VOLUME	48,6 L
C - MEASURE	1695 mm		
CONN.STD	SMS 51 MM		

PER SECTION

SECT. NO.	PLATE AREA m2	VOLUME IN LTR. SIDE 1 / SIDE 2	A-MEASURE (mm)
1	3,92	6,0 / 6,4	141 (AA)
2	1,96	3,0 / 3,4	125 (AB)
3	1,26	2,2 / 2,2	107 (AC)
4	3,36	5,2 / 5,6	160 (AD)
5	3,36	5,2 / 5,6	160 (AE)
6	1,12	1,7 / 2,2	71 (AF)

CARRYING BARS

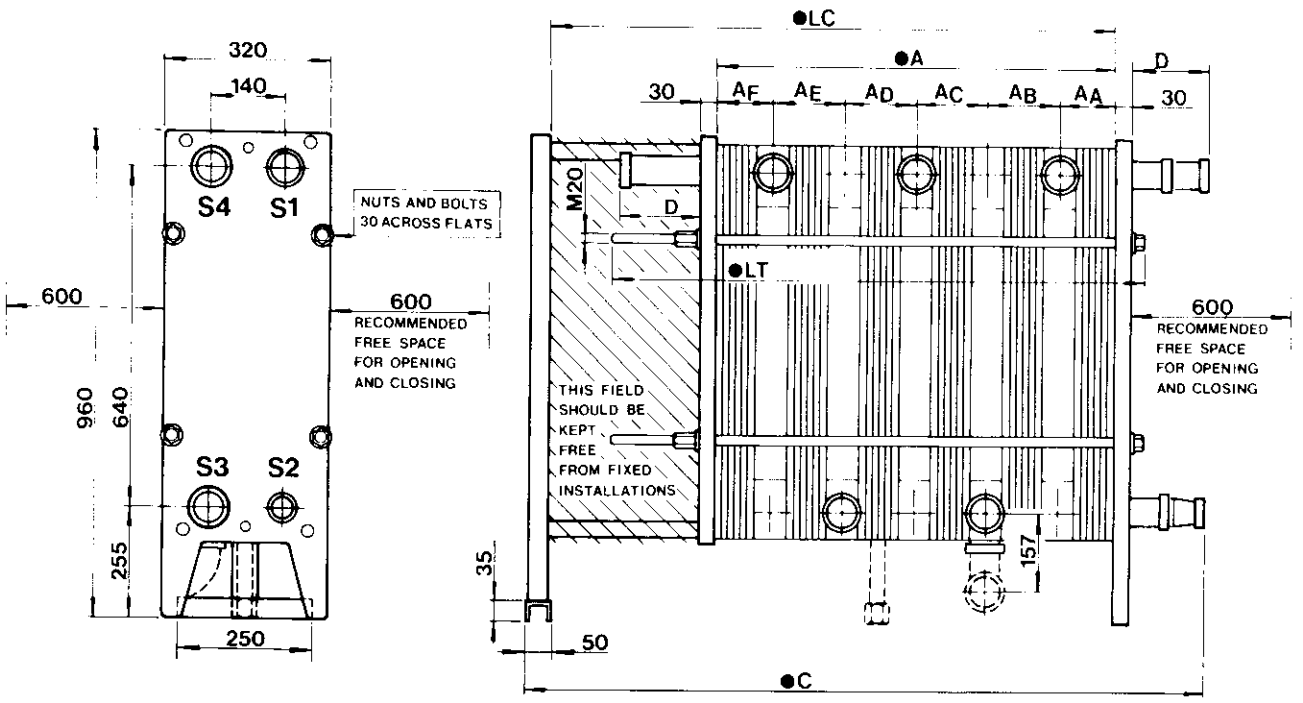
CARR.BAR L. 1500 mm EST. MIN.LENGTH 1225 mm
EXTENDIBLE BY : PLATE QUANT. / FREE HANGING
55 PCS / 275 mm

TIGHTENING BOLTS

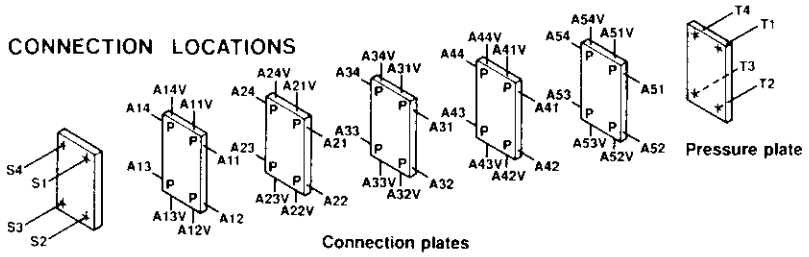
TIGHT.BOLT L. 1400 mm EST. MIN.LENGTH 1100 mm
TIGHT.BOLT DIM. M20
EXTENDIBLE BY : PLATE QUANT. / FREE HANGING
60 PCS / 300 mm

CENTRE OF GRAVITY	EMPTY	FILLED	(mm)
HORIZONTAL	453	446	(from the outside of the frame plate)
VERTICAL	575	575	(from the underside foot or frame)

FOUNDATION LOAD	OPENED	OPERATING (N)
SUPP. COLUMN SIDE	2089	1157
FRAME SIDE	2471	2824



CONNECTION LOCATIONS



Frame plate

Connection plates

Pressure plate

LOCATION	MEDIA	CONN.TYPE

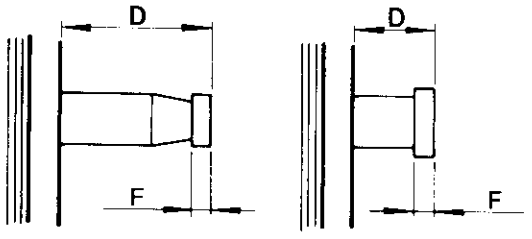
● WHEN THIS DRAWING IS USED AS DESIGN DRAWING, PLEASE FIND DIMENSIONS ON DATA PRINT

ALL DIMENSIONS IN MILLIMETERS

CONNECTION TYPES

1. Connection of stainless steel ø 51 - 38 with union.

2. Connection of stainless steel ø 51 with union.



With or without thermometer pocket.

STANDARD	Ø51-38 D	Ø51 ☆D	F
SMS	120	120	20
DIN, IDF, RJT, CLAMP	122	122	22

☆ 70mm shorter without thermometer pocket.

QUOTATION NO.
ORDER NO.
ITEM NO.
CALCULATION NO.
PREPARED | CHECKED | APPROVED

M6-MFMC

ALFA-LAVAL

T2-S | DATE 9008

BENÄMNING.....:M6-MFMC ORDERNR: RP380282
ORDERERK. DAT:98132 OMPLAN. DAT.:98132 G-TID JUST:
KUNDORDER NR.:ROT380282 ÖVERNR.....:ROT380282 ANTAL..: 1
KUNDLAND.....:GERMANY KONTO/KSTÄL.: 737 /1470 HANDL..:CK
KÖ.....:IN/EJ AVSLUT: BEST. HANDL.: 1029 GRUPP..:H7

Alfa Laval Thermal AB

DRAWING NO.....: 32200-1861
SERIAL NO. (FROM): 30101-26870
SERIAL NO. (TO)..:
DESIGN PRESS.....: 10.0 BAR
TEST PR. SING/DUB: 13.0/13.0 BAR
MAX DES. TEMP....: 110 C
DESIGNCODE.....: SA
INSPECTION BY....:

FÄRDIGA ARTIKLAR		PLAN.	EH	INLÄMN.
M6 MFMC FX01	GEMENSAMMA DETALJER	1	ST	1
M6 FMC BA04	AXLAR LC=1500 MM	1	ST	1
M6 FMC TB04	BULTAR LT=1400 MM	1	ST	1
M6 FMC CC01	ANSLUTNINGSPLATTA	5	ST	5
M6 FMC NP01	TYPSKYLT ENGELSK	1	ST	1
M6 FMC CN01	ANSLUTNING 51 MM	4	ST	4
M6 FMC BC01	BLINSANSLUTNING	4	ST	4
M6 FMC CO01	BLINDHÖRN	8	ST	8
M6 FMC CO02	GENOMLOPP	2	ST	2
M6 FMC CO04	ENKELHÖRN	4	ST	4
M6 FMC CO06	DUBBELHÖRN	6	ST	6
M6 FMC FI02	SVETSNIPPEL SMS 51	20	ST	20
M6 FMC YP14	BUR FÖR LC=1500 MM	1	ST	1
ZI01	INSTR.BOK ENGELSK LE	3	ST	3
ZC02	PROVTR.INTYG+MAT.LIS	1	ST	1
364117 0404	KPL-M6MT-316-0.6-NIT	2	ST	2
364117 0405	KPL-M6MT-316-0.6-NIT	6	ST	6
364117 0406	KPL-M6MT-316-0.6-NIT	3	ST	3
364117 0409	KPL-M6MT-316-0.6-NIT	4	ST	4
364117 0410	KPL-M6MT-316-0.6-NIT	6	ST	6
364117 0411	KPL-M6MT-316-0.6-NIT	3	ST	3
364117 4403	KPL-M6MT-316-0.5-NIT	30	ST	30
364217 0404	KPL-M6MT-316-0.6-NIT	3	ST	3
364217 0405	KPL-M6MT-316-0.6-NIT	1	ST	1
364217 0406	KPL-M6MT-316-0.6-NIT	2	ST	2
364217 0409	KPL-M6MT-316-0.6-NIT	4	ST	4
364217 0411	KPL-M6MT-316-0.6-NIT	5	ST	5
364217 0444	ÖGPL-M6MT-316-0.6-NIT	4	ST	4
364217 0451	ÖGPL-M6MT-316-0.6-NIT	2	ST	2
364217 0484	ÄPL2-M6MT-316-0.6-NIT	4	ST	4
364217 0491	ÄPL2-M6MT-316-0.6-NIT	2	ST	2
364217 4403	KPL-M6MT-316-0.5-NIT	44	ST	44

OPERATIONSLISTA FÖR H7

		ST.TID	R	OP.TID
0110	SVETSNING			8.79
	SV ENL WPS4			
	TILLSATSMATERIAL AWS ER316-L			
0300	FÖRMONTAGE + PLATTOR			6.69
0410	SLUTMONTAGE			2.29
0420	STÄLLTID STANS			.15
0810	EMBALLERING			1.10

Lindbergs, Skurup 59200

A R B E T S L I S T A TH-FS DAT:98/03/25 SIDA 2 VMI03

Alfa Laval

Alfa Laval Thermal AB

BENÄMNING....:M6-MFMC ORDERNR: RP380282
ORDERERK. DAT:98132 OMPLAN. DAT.:98132 G-TID JUST:
KUNDORDER NR:[illegible] ÖVERNR.....:ROT380282 ANTAL..: 1
KUNDLAND.....:GERMANY KONTO/KSTÄL.: 737 /1470 HANDL..:CK
KÖ.....:IN/EJ AVSLUT: BEST. HANDL.: 1029 GRUPP..:H7

OPERATIONSLISTA FÖR H7

ST.TID R OP.TID

0910 AVSÄNDNING

HÅLNING: 0

RÅMATERIAL-HALVFABRIKAT			PLAN.	EH	UTLÄMN.
223101 39		BRICKA BRB 21X36 2343	4	ST	4
260192 03		SKRUV M6S M20X40 2343	2	ST	2
260192 09		SKRUV M6S 20 X 65 2343	2	ST	2
32320 4001 1		STPL M6-FMC	1	ST	1
32320 8202 1		TRPL M6-FMC	1	ST	1
32322 0040 1		BÄPE M6-FMC	1	ST	1
32326 0610 1		SKYLT S1-S4	1	ST	1
32326 0610 2		SKYLT T1-T4	1	ST	1
66169		DRIVSKRUV 3X6	4	ST	4
32323 0195 1		NIV.SKRUV M6-FMC(M6SM20*13	1	ST	1
32323 2046 4		BÄRAXEL M6-FMC D30 L=1500	1	ST	1
32323 4021 1		STAX M6-FMC L=1500	1	ST	1
1995 101 096		*FP* 24/22 PLASTSLANG	4	M	4
32324 1403 1		SLITBRICKA M6 FMC/FHC	4	ST	4
32324 1602 4	MP	DRAGBULT M20 L=1400	4	ST	4
32324 2024 5		MUTTER MÄSS M20 M6	4	ST	4
990148 01		FJÄDERBRICKA AZ 21*33 1000	4	ST	4
32321 3200 1		ANPL M6-FMC	5	ST	5
1629003 01		TYPSKYLT ENG.TEXT	1	ST	1
956264 12		SKYLT"ALFA-LAVAL" *FP*	2	ST	2
32324 7500 1		ANSLUTNINGSRÖR M6-FMC	4	ST	4
32324 4507 1		BLINDBRICKA M6-FMC	4	ST	4
990151 01		FÖRSLUTNINGSPLUGG M6-FMC	4	ST	4
32325 5410 1		BLINDHÖRN M6	8	ST	8
1625189 02		GENO M6-FMC/FHC	2	ST	2
32325 5406 2		ENKELHÖRN M6-FMC *KONSIGNA	4	ST	4
32325 5408 2		DUBBELHÖRN M6-FMC *KONSIGN	6	ST	6
191004		NIPPEL SMS 51 MM	20	ST	20
BU M6 1500	RIE	EMB-M6-FMC/FHC-BUR-1500	1	ST	1
32330 1414 6	PP	PACK-M6MT-NIT	113	ST	113
364117 0000	PP	RÅPL-M6M1-316-0.6-*	24	ST	24
364117 4098	PP	RÅPL-M6M1-316-0.5-*	30	ST	30
364217 0000	PP	RÅPL-M6M2-316-0.6-*	21	ST	21
32330 1424 6	PP	ÄPAC-M6MT-*-*-NIT	12	ST	12
32330 6634 6	PP	ÄPAC-M6M-*-*-NIT	12	ST	12
32330 8535 1	PP	KRAG-M6M-316-0.8-*	12	ST	12
364217 0097	PP	RÅPL-M6M2-316-0.6-*	6	ST	6
364217 4098	PP	RÅPL-M6M2-316-0.5-*	44	ST	44

TIDUPPFÖLJNING G-TID-ARBETSDAGAR: TOT: !REG.DATUM..:980224
PLANERAD PT-TID .....: 19.0 !I VECKOPROG:98123
+/- TID..... !
JUSTERING FÖR HÅLNING-RIGGNING: !V-STARTDAT :98125
JUSTERING FÖR EMBALLERING.....: !
REPARATION-TRUCKUNDERHÅLL.....: !V-FÄRDIGDAT:98132
SUMMA ANSLAGEN TID 19.0

Mailing address Alfa Laval Thermal AB Box 74 SE-221 00 Lund, Sweden
VAT number SE556016864201 Reg. number 556016-8642
Telephone Int.+46 46-36 65 00
Telex 33324
Telefax +46 46-30 50 90
Postal Giro 19 91 01-7
Bank Giro 689-4638
Bank account 5947-10-002-97
Bank S-E-Banken MALMÖ-SWEDEN SWIFT-address ESSESESM
Giro within Sweden else Please effect payment via SWIFT

Lidbergs, Skurup 59200