

*Date* : 28 May 2002

*Modified* : 19 June 2002

*Project* : LIPS

*Ref.* : NEN2002-0223

*Re* : SPECIFICATION AND CONDITIONS PROJECT LIPS (Liquid Plant Suffolk)

## **Table of contents**

<b>1</b>	<b>INTRODUCTION .....</b>	<b>2</b>
1.1	DEFINITIONS .....	2
<b>2</b>	<b>DOCUMENTS SUPPLIED.....</b>	<b>2</b>
<b>3</b>	<b>RULES AND REGULATIONS.....</b>	<b>2</b>
3.1	GENERAL .....	2
3.2	REQUIRED NORMS .....	2
3.3	MANUFACTURER'S INSTRUCTIONS.....	2
3.4	SUPERVISION/EXECUTION .....	2
3.5	TRANSPORT AND STORAGE.....	3
3.6	SAFETY .....	4
3.7	AUXILIARY MATERIALS AND CONSUMABLE MATERIALS .....	4
3.8	ON SITE.....	4
3.9	IMPLEMENTATION PLANNING .....	4
3.10	SPECIAL PROVISIONS .....	4
3.11	DAMAGES.....	4
<b>4</b>	<b>DETAIL ENGINEERING.....</b>	<b>5</b>
<b>5</b>	<b>FLOOR AND WALL PENETRATIONS.....</b>	<b>5</b>
<b>6</b>	<b>COMMENCEMENT, PROGRESS AND DELIVERY .....</b>	<b>5</b>
<b>7</b>	<b>INSURANCE .....</b>	<b>5</b>
<b>8</b>	<b>PAYMENTS AND CONDITIONS.....</b>	<b>5</b>
<b>9</b>	<b>CONTRACTOR STANDARDS .....</b>	<b>5</b>

## **1 Introduction**

This specification relates to the project LIPS (Liquid Plant Suffolk).  
Enclosed the scope of work.

### **1.1 Definitions**

Contractor:	The performer of the operations given in this specification.
Principal:	Sara Lee - DE Operations C&T division Manufacturing Technology
Site Manager:	The person managing operations on the site on behalf of Sara Lee.
Third parties:	Other parties than those named above.

## **2 Documents Supplied**

The work must be performed according to the drawings and documents given in the document list, tab 2 Drawinglist, the linelist and according to the implementation requirements.

## **3 Rules and Regulations**

### **3.1 General**

The contractor must abide by all the rules and regulations applicable to this project. Before commencing operations the contractor must submit to the principal for approval the names of the subcontractors who will be doing particular parts of the work. All operations to be carried out must be completed to good standards of workmanship.

### **3.2 Required Norms**

ASME (American Society of Mechanical Engineers)

All fittings and tubing in accordance with the 3A sanitary standards by the appropriate committees of the International Association of Milk, Food and Environmental Sanitariums, US Public Health Service, and Dairy Industry Committee

### **3.3 Manufacturer's Instructions**

- Equipment and instrumentation must be installed in accordance with manufacturing's instructions

### **3.4 Supervision/execution**

All work must be executed by Contractors Standards Suffolk, Virginia. A copy will be provided with the contract

Progress meetings, to be convened on the construction site according to need, will be minuted by the contractor and these minutes shall be available to the principal.

Besides taking care of the personal, technical staff and the equipment, resources and consumables named in chapter 3.7 The contractor must supply and erect the necessary temporary shelters, workshops and stores and connect these to water and electrical supplies.

The principal will indicate the available sites for the shelters and the connection points for services. The contractor shall submit a positioning plan to the principal for approval before going ahead with placing the buildings.

The principal will make electricity and water available at no charge.

The contractor will take care of the connections to water and electrical supplies.

The contractor will provide toilet and cafeteria facilities.

There are no telephone lines available.

The contractor is obliged to minimize pollution of the site and buildings with waste and material residues, and to take responsibility for cleaning up any such pollution that does occur.

The contractor will provide waste containers.

In case the contractor fails in this respect the principal is empowered to get the cleaning up done by a third party at the expense of the contractor.

Adequate provisions must be made to prevent damage to floors, walls and already installed equipment by grinding and welding operations, stains and passivation.

Materials that are finished with, such as scaffolding material, packaging etc. must be removed from the site immediately after use. The principal can indicate storage places on the site for particular materials, where the material is to be deposited neatly. Burning or burying of materials on the site is not permitted.

### **3.5 Transport and storage**

All means of transporting (in the broadest sense of the word) goods, both horizontally and vertically, must previously have been approved by the principal.

All materials delivered by the principal the contractor, or by third parties to the contractor, must be unloaded by the contractor, put into storage, transported and installed.

The contractor accepts responsibility for the goods from acceptance, in respect both of careful storage and transport and of professional handling of the materials and equipment made available.

The contractor carries the financial and material responsibility for damage insofar as it is not covered by insurance.

Any damage sustained must be notified immediately to the principal, who will then determine whether the damaged item must be repaired or replaced.

For transport the contractor shall make use of pathways to be indicated by the principal. The cost of making good damage to paths, grounds and buildings will be recovered from the contractor in case of negligence or culpability. Materials supplied by the principal will be made available from a store next to the construction work on site. The contractor must arrange transport to the workplace concerned.

### **3.6 Safety**

See Contractor Standards Suffolk, Virginia Plant.

### **3.7 Auxiliary materials and consumable materials**

The contractor must independently at own expense take care of all tools, auxiliary materials and consumable aids required for the construction. This means, without being limited to these items: welding, cutting and hand tools; scaffolding; lifting and transport equipment; lighting; electrodes and other consumable materials.

Consumable materials means, among other things:

- welding electrodes, flux-cored rods, wire, gas, grindings abrasives stains and pickles;
- thread protection for bolts and nuts (Molykote);
- plates, wedges, filler plates;
- various materials such as temporarily required bolts, nuts, washers, packing pieces, plugs etc.;
- permanent gaskets
- temporary supports and auxiliary constructions;
- dummies for in-line instruments.

### **3.8 On site**

The contractor shall assemble in good time all information required for the work, so that the operations can be completed without delays and the approved planning.

### **3.9 Implementation planning**

The contractor must submit with the offer a detailed planning, including an overview of the material required (also of the fittings supplied by the principal and in-line instruments) and a manpower requirement.

The contractor shall contribute actively to the establishment of the definitive planning.

Operations must be carried out in close consultation with the principal. The contractor must co-ordinate his operations with other contractors as far as possible.

The contractor shall assemble in good time all information required for the work, so that the operations can be completed without delays and within the approved planning.

### **3.10 Special provisions**

Loss or theft of, and damage to, materials and parts made available to the contractor must be paid for by the contractor and must be notified to the principal. This applies also to the materials and tools of the contractor.

### **3.11 Damages.**

Should damage occur during the construction to the properties of the owner or of third parties, through the fault of the contractor, then this must be notified immediately in writing to the principal. The damage caused must in principle be made good by the contractor.



#### **4 Detail engineering.**

The principal will make no other documents available than those mentioned in this specification. In the case that the contract is awarded these documents will be issued in duplicate.

The documents forming part of this specification do not comprise a detail engineering package, but form an extensive guideline for the operations to be performed. The contractor himself is responsible for dimensioning and consequently must also check the given measurements. At the same time, the contractor must allow for the required overlength and field welds in the tubing.

#### **5 Floor and wall penetrations**

The floor and wall penetrations according drawing T162026.

The drilling of the holes is not part of the supply and will be done by third parties.

#### **6 Commencement, progress and delivery**

Commencement of operations:

Before operations commence a planning must be submitted for approval and there will be a kick-off meeting.

The progress of the works must be communicated to Sara Lee / DE every week.

In case of time and materials a daily hours report will be delivered to the principal every day

An material report will be delivered to the principal every week.

The work is delivered when the works described in the specification have been completed and inspected and approved by the principal.

#### **7 Insurance**

See Contractor Standards Suffolk Virginia Plant.

Chapter 2 Contractor safety requirements

#### **8 Payments and conditions**

The payments will occur in percentages of the contract sum according to the installments agreed in the order.

#### **9 Contractor standards**

The contractor standards will be provided by the principal.

*Date* : 21 June 2002

*Modified* : 27 June 2002

*Project* : LIPS

*Ref.* : NEN2002-0296

*Re* : SCOPE OF WORK SPRAY DRYER

---

## **Table of contents**

<b>1</b>	<b>GENERAL .....</b>	<b>2</b>
<b>2</b>	<b>TUBING .....</b>	<b>2</b>
<b>3</b>	<b>CONNECTIONS .....</b>	<b>2</b>
<b>4</b>	<b>UTILITIES.....</b>	<b>2</b>
<b>5</b>	<b>INSULATION.....</b>	<b>2</b>
<b>6</b>	<b>SUPPORTS .....</b>	<b>2</b>
<b>7</b>	<b>SPECIFIC.....</b>	<b>3</b>

## 1 General

The main part of the job will be the mounting of piping, the mounting of supports and the setting up of equipment in the spray dryer building. Bolts and washers (in metric AISI 304) for fastening the equipment to the support structure are also to be delivered.

Concerning the drawings and other documentation in this file, the P&I diagram is determinative in case of doubt.

## 2 Tubing

The tubing must be completely sanitary.

Quality and finish:

The used tubing is longitudinally welded stainless steel dairy pipes, according to ASTM A-269, polished ID & OD 150 grit. The material is AISI 304L

If the diameter of a pipe is not provided by the line list or P&ID, like drains, 2" tubing should be used.

All pipes have line numbers, which you can find on the P&ID, lay-outs and the line list.

Drains pipes don't have a number, but form part of the supply

Branch connections type pull-out, or bending pipes are not allowed. Welding bends and tees have to be used instead.

Valves with leak detection, drain valves, drains and rinsing valves are drawn on the P&ID with a funnel. All funnels have to be connected to the sewer system either directly, or by means of a collective drain pipe. If the funnel pipe leads through the floor, the lead-through has to stick out 100 mm minimally, so that a socket can be mounted.

## 3 Connections

Equipment, accessories and in-line instruments will be supplied with weld-ends on one or both sides, or Tri-clamp.

## 4 Utilities

Utilities, like steam, condensate, hot & cold water, cooling water, ice water, sewer and compressed air, is installed by an other contractor.

## 5 Insulation

The insulation is not included in this scope. The line list provides information about which pipe will be insulated and which one doesn't. Equipment, accessories and in-line instruments don't have to be insulated.

## 6 Supports

The supply and fixing of all necessary supports required for the tubing is part of the contractor's supply. Except the pipebridge


Supports have to be made out of AISI 304L box profile, preferably 40x40x2 mm. Most of the supports are shown on drawings, because its number and size have to be determined in the field according to high-quality workmanship.

## 7 Specific

This document concerns the spraydryer. The main body of spraydryer is hanging up already in the building. All this equipment has to be set up, accessories and tubing.

Control the just location and diameters of the floor penetrations with the floor beams.

**“ Drill not trough the floor beams ! ! ! “**

DRAWING NUMBER	SIZE A	PAGE	MOD. LETTER	DESCRIPTION	TRADE MARK	REMARK	
T161446	3	1	H	PROCESSDIAGRAM	DE		
	3	2	D	PROCESSDIAGRAM	DE		
	3	3	D	PROCESSDIAGRAM	DE		
	3	4	E	PROCESSDIAGRAM	DE		
T161333	1	1	N	LAYOUT SPRAY-DRYER	DE		
	2	2	G	LAYOUT SPRAY-DRYER	DE		
	2	3	G	LAYOUT SPRAY-DRYER	DE		
	2	4	I	LAYOUT SPRAY-DRYER	DE		
	2	5	I	LAYOUT SPRAY-DRYER	DE		
	1	6	J	LAYOUT SPRAY-DRYER	DE		
T161335	0	1	C	SECTION SILO-DRYTOWER AND EXTRACTION	DE		
T161363	0	1	A	AIR-INLET	DE	supplier: GTI/FIB	
T161364	1	1		PERFORATION SHEETS	DE	supplier: GTI/FIB	
T161365	0	1	A	FRAME FOR PERFORATION SHEETS	DE	supplier: GTI/FIB	
T161366	1	1	C	NOZZLE- AND POWDERPIPE	DE	supplier: GTI/FIB	
T161371	0	1	B	BODY	DE	supplier: GTI/FIB	
T161372	1	1	C	COVER AND COVERSUPPORT	DE	supplier: GTI/FIB	
T161373	1	1	C	MOUNTING COVER AND COVERSUPPORT	DE		
T161374	1	1	A	LAMP SHADE	DE	supplier: GTI/FIB	
T161375	1	1	A	INSPECTION COVER	DE	supplier: GTI/FIB	
T161376	1	1		LAY OUT AIR INLET AND HEATER	DE		
T161377	1	1		REDUCERPIPE AFTER HEATER	DE	supplier: GTI/FIB	
T161378	1	1	A	BEND AFTER HEATER	DE	supplier: GTI/FIB	
T161379	2	1		AXIAL COMPENSATOR DN600/PN6	DE	supplier: BOA	
T161380	3	1		STEAM CONNECTION AT COVER	DE	supplier: GTI/FIB	
T161381	3	1		HOSECLAMP FOR EXPANSION JOINT OF BODY	DE	supplier: GTI/FIB	
T161382	1	1		BEND IN FRONT OF HEATER D=600	DE	supplier: GTI/FIB	
T161383	1	1	A	PLATFORM FOR NOZZLE PIPE	DE	supplier: GTI/FIB	
T161384	2	1	B	VIBRATORS	DE	supplier: GTI/FIB	
T161385	0	1	A	OUTLET CONE	DE	supplier: GTI/FIB	
T161386	1	1		PLATFORM +17200 FOR BODY SPRAYDRYER	DE	supplier: GTI/FIB	
T161387	2	1		SECTION OF GRATE FOR PLATFORM +17200	DE	supplier: GTI/FIB	
T161388	0	1	A	RING PIPE	DE	supplier: GTI/FIB	
T161389	2	1		COVER AT RING PIPE	DE	supplier: GTI/FIB	
T161390	2	1		COVERFRAME AT RING PIPE	DE	supplier: GTI/FIB	
T161391	3	1		CLAMP BOLT FOR COVER	DE	supplier: GTI/FIB	
T161394	0	1		PLATFORM +7200 FOR OUTLETCONE	DE	supplier: GTI/FIB	
T161395	2	1		SECTION OF GRATE FOR PLATFORM +7100	DE	supplier: GTI/FIB	
T161397	1	1		HOPPER AFTER OULETCONE	DE	supplier: GTI/FIB	
T161398	1	1		MULTI CYCLONE REMOVAL	DE	supplier: GTI/FIB	
GROUP: 1		DATE	FACTORY : COFFEE SUFFOLK		 <b>SARA LEE/DE</b> OPERATIONS C&T DIVISION MANUFACTURING TECHNOLOGY <small>ALL RIGHTS RESERVED. REPRODUCTION OR DISCLOSURE OF (ANY PART OF) THIS DOCUMENT ONLY PERMITTED WITH OUR WRITTEN PERMISSION.</small>	WORD-FILE: T180141	
AUT : R. WINK		JUN-4-2002	PROCESS : LIQUID FACTORY			CODE:	
CHK : WIR			UNIT : SPRAY DRYER			PAGE: 1	OF: 3
MOD : RBW		MAY-07-03	DRAWINGLIST WORK DOCUMENTATION			DRAWING Nr.: 180141	

DRAWING NUMBER	SIZE A	PAGE	MOD. LETTER	DESCRIPTION	TRADE MARK	REMARK
T161399	4	2		MULTI CYCLONE REMOVAL	DE	supplier: GTI/FIB
T161401	3	1		FLEXIBLE CONNECTING FOR HOPPER AND BIN	DE	supplier: GTI/FIB
T161402	2	1	A	CLAMPS FOR RINGPIPE	DE	supplier: GTI/FIB
T161888	2	1		NICHEPIPE TROUGH ROOF FOR PIPE D= 600	DE	supplier: GTI/FIB
T161889	2	1		OUTLET AIR PIPE D=600	DE	supplier: GTI/FIB
T161889	0	1	A	VALVE FOR OUTLET AIR PIPE D= 600	DE	supplier: GTI/FIB
T161890	2	1		CLAMP FOR PIPE D=500	DE	supplier: GTI/FIB
T161891	1	1		BEND OUTLETAIR D=600	DE	supplier: GTI/FIB
T161892	2	1	A	MULTI CYCLONE	DE	supplier: GTI/FIB
T161893	0	1	A	VALVE FOR AIRINLET D= 600 / 500X500	DE	supplier: GTI/FIB
T161894	2	1		CLAMP FOR HORIZONTAL PIPE D= 600	DE	supplier: GTI/FIB
T161895	1	1		AIRFILTERBOX D=500	DE	supplier: GTI/FIB
T161896	2	1	A	FURNACE INLET VALVE FIV D= 600	DE	supplier: GTI/FIB
T161897	2	1		INLET AIR PIPE D=500	DE	supplier: GTI/FIB
T161898	2	1		EXPANSION JOINT AFTER MULTICYCLONE D=500	DE	supplier: GTI/FIB
T161899	2	1		BEND TO FURNACE INLET FAN D=500	DE	supplier: GTI/FIB
T161900	3	1		HOSE CLAMP FOR EXPANSION JOINT D=500	DE	supplier: GTI/FIB
T161901	1	1		MEASURING NIPPLES FOR BODY	DE	supplier: GTI/FIB
T161902	0	1	C	SURVEY SHEET CARRYING BAR	DE	supplier: GTI/FIB
T161903	1	1	A	CARRYING BAR	DE	supplier: GTI/FIB
T161904	1	1	A	CARRYING BAR	DE	supplier: GTI/FIB
T161905	0	1	E	LAY OUT MULTI CYCLOON AND PIPESYSTEM	DE	
T161906	2	1		REDUCER PIPE OUTLETAIR D= 600 / 510X510	DE	supplier: GTI/FIB
T161907	1	1	A	LAY OUT AIR COOLER/HEATER OF OUTLETONE	DE	
T161908	3	1	A	FRAME COOLER/HEATER OUTLETONE	DE	supplier: GTI/FIB
T161909	3	1		FRAME FAN FOR COOLER/HEATER OUTLETONE	DE	supplier: GTI/FIB
T161910	3	1	A	REDUCERPIPES COOLER/HEATER	DE	supplier: GTI/FIB
T161911	1	1		PIPE CLAMP OUTLET AIR FAN (DOF)	DE	supplier: GTI/FIB
T161912	2	1		RAILING FOR GRIDFLOOR +46'7"	DE	supplier: GTI/FIB
T161913	1	1		STAIR TO RINGPIPE	DE	supplier: GTI/FIB
T161914	2	1	A	INLET VALVE FOR COOLER/HEATER (AI) D=300	DE	supplier: GTI/FIB
T161915	2	1		FILTERBOX FOR COOLER/HEATER	DE	supplier: GTI/FIB
T161917	2	1		CLAMP FOR PIPE D=600	DE	supplier: GTI/FIB
T161918	0	1	C	STRUCTURAL HOLES SPRAY DRYER	DE	supplier: GTI/FIB
T161919	2	1		FAN OF COOLER/HEATER (AB)	DE	supplier: Naaykens
T161920	2	1		FAN OF AIR INLET (FIF)	DE	supplier: Naaykens
T161921	2	1		FAN OF AIR OUTLET (DOF)	DE	supplier: Naaykens
T161922	2	1		SUPPORT OF PIPE D=500	DE	supplier: GTI/FIB
T161923	2	1		FRAME UNDER FAN OF T161920 (FIF)	DE	supplier: GTI/FIB
T161924	2	1		FRAME UNDER FAN OF T161921 (DOF)	DE	supplier: GTI/FIB
GROUP: 1		DATE	FACTORY : COFFEE SUFFOLK			WORD-FILE: T180141
AUT : R.WINK		JUN-4-2002	PROCESS : LIQUID FACTORY			CODE:
CHK : WIR			UNIT : SPRAY DRYER			PAGE: 2 OF: 3
MOD : RBW		MAY-07-03	DRAWINGLIST WORK DOCUMENTATION			DRAWING NR.: 180141




**SARA LEE/DE**

OPERATIONS C&T DIVISION  
MANUFACTURING TECHNOLOGY

ALL RIGHTS RESERVED. REPRODUCTION OR  
DISCLOSURE OF (ANY PART OF) THIS DOCUMENT  
ONLY PERMITTED WITH OUR WRITTEN PERMISSION.

DRAWING NUMBER	SIZE A	PAGE	MOD. LETTER	DESCRIPTION	TRADE MARK	REMARK
T161925	2	1		MAXON GAS PIPE TRAIN	DE	supplier: Maxon
T161926	1	1	A	MAXON HEATER	DE	supplier: Maxon
T161927	1	1	A	INJECTOR CARBONIC ACID GAS	DE	supplier: GTI/FIB
	4	2	A	INJECTOR CARBONIC ACID GAS	DE	supplier: GTI/FIB
T161928	1	1		LAY-OUT EXTTRACT PRESSURE PUMP EPP	DE	
T161960	1	1	A	EXTTRACT TANK ET 200 LTR.	DE	supplier: GTI/FIB
T161962	2	1		LAY-OUT CARBONIC ACID GAS SYSTEM	DE	HOLD
T161963	2	1	A	RECEIVING TUBE FOR CARBONIC ACID GAS	DE	supplier: GTI/FIB
	4	2	A	RECEIVING TUBE FOR CARBONIC ACID GAS	DE	supplier: GTI/FIB
T163191	1	1	B	EXTRACT FILTERUNIT EF SPRAY-DRYER	DE	supplier: GTI/FIB
T163215	1	1		LAY-OUT PIPING AND HOISTINGSHAFT	DE	
T163223	1	1		SUPPORT BRACKETS NOZZLE PIPE	DE	supplier: GTI/FIB
T163224	1	1	A	COUPLINGPIPES NOZZLE PIPE	DE	supplier: GTI/FIB
T163258	1	1	A	COLLECTIONPIPE MULTICYCLOON	DE	supplier: GTI/FIB
	4	2	A	COLLECTIONPIPE MULTICYCLOON	DE	supplier: GTI/FIB
T163264	1	1		SUPPORT OF CARBONIC ACID GAS PIPES	DE	supplier: GTI/FIB
T163266	1	1		ISO SPRAY DRYER	DE	
T163403	2	1		P&I DIAGRAM MAXON PIPETRAIN	DE	supplier: Maxon
T163413	2	1		FRAME FOR HIGH PRESSURE PUMP	DE	supplier: GTI/FIB
T163419	1	1	A	PIPEPLAN SPRAY DRYER FIRST FLOOR	DE	
T180022	1	1		PIPE SUPPORT SD-PS-01	DE	supplier: GTI/FIB
T180025	1	1		PIPE SUPPORT SD-SP-02	DE	supplier: GTI/FIB
T180139	2	1		HIGH PRESSURE PUMP EPP	DE	supplier: Kalteren
T180175	1	1		STEAM TUBING CLEANING BODY	DE	
T180175	1	1		CONDENSATE AND ICE-WATER TUBING	DE	
T180179	1	1		FLOORPENETRATIONS TUBING	DE	
T180928	1	1		FRAME MULTICYCLONE	DE	supplier: GTI/FIB

GROUP: 1	DATE	FACTORY : COFFEE SUFFOLK	 <div><b>SARA LEE/DE</b> OPERATIONS C&amp;T DIVISION MANUFACTURING TECHNOLOGY <small>ALL RIGHTS RESERVED. REPRODUCTION OR DISCLOSURE OF (ANY PART OF) THIS DOCUMENT ONLY PERMITTED WITH OUR WRITTEN PERMISSION.</small></div>	WORD-FILE: T180141	
AUT : R. WINK	JUN-4-2002	PROCESS : LIQUID FACTORY		CODE:	
CHK : WIR		UNIT : SPRAY DRYER		PAGE: 3	OF: 3
MOD : RBW	MAY-07-03	DRAWINGLIST WORK DOCUMENTATION		DRAWING Nr.: 180141	

# LINELIST - EXTRACTION SUFFOLK



revision: C		date: June-6-02								name: S.v.d.Schaaf			
LINENR	DN	inch	MEDIUM	FROM	TO	Q average		Q max.		v	T	Ins.	P&ID
	mm	"				(M <sup>3</sup> /hr)	GPM	(M <sup>3</sup> /hr)	GPM	m/s	(C)	X	161
1001	80	3	Primary Extract	PWT	MPW-1			30	132,1	1,5	20		449/6 - 462
1002	40	1 1/2	Watery Extract	WC-MB1	MPW-1			7	30,8	1,3	80	X	462
1003	50	2	Coffee Extract	Strip column-1	MPW-1			12	52,8	1,3	20		452 - 462
1004	50	2	Coffee Extract	MB-1	Strip column-1			12	52,8	1,3	20		452 - 462
1005	50	2	Coffee Extract	MB-1	WOP-MPW-1			20	88,1	2,2	20		462
1006	50	2	Cip	Cip A+	MPW-1			20	88,1	2,2	80	X	462
1007	50	2	Cip	Cip U1	MPW-1			12	52,8	1,3	80	X	449/2 - 462
1008	50	2	Rinse water	R+	MPW-1			20	88,1	2,2	15		700 - 462
1009	50	2	Rinse water	MPW-1	Mra			20	88,1	2,2	15		462 - 494
1010	50	2	Cip	MPW-1	Cip U1			12	52,8	1,3	80	X	462 - 449/2
1011	50	2	Cip	MPW-1	Cip A -			20	88,1	2,2	80	X	462
1012	40	1 1/2	Cip	MPW-1	Storage tanks Batt-1			10	44,0	1,8	80	X	462
1013	80	3	Watery Extract	WT1-1	MPW-1			30	132,1	1,5	20		462
1014	80	3	Watery Extract	WT1-2	MPW-1			30	132,1	1,5	20		462
1015	80	3	Watery Extract	WT1-3	MPW-1			30	132,1	1,5	20		462
1016	80	3	Watery Extract	WT1-4	MPW-1			30	132,1	1,5	20		462
1017	80	3	Watery Extract	WT1-5	MPW-1			30	132,1	1,5	20		462
1018	80	3	Primary Extract	PT1-1	MPW-1			30	132,1	1,5	20		462
1019	80	3	Primary Extract	PT1-2	MPW-1			30	132,1	1,5	20		462
1020	80	3	Primary Extract	PT1-3	MPW-1			30	132,1	1,5	20		462
1021	25	1	Stripsel Extract	DIC	MM1			2	8,8	0,8	20		474/1
1022	40	1 1/2	Coffee Extract	MEO	MM1			2	8,8	0,4	5		472/2 - 474/2
1023	40	1 1/2	Coffee Extract	MSC	MM1			5	22,0	0,9	5		474/1
1024	40	1 1/2	Coffee Extract	MM1	MSP			5	22,0	0,9	5		474/1 - 482
1025	50	2	Coffee Extract	MM1	MSI			10	44,0	1,1	5		474/1 - 449/2
1026	50	2	Cip	MM1	Cip U1			5	22,0	0,6	80	X	474/2 - 449/2
1027	50	2	Cip	MM1	Cip B-			20	88,1	2,2	80	X	474/2
1028	50	2	Rinse water	MM1	MRb			20	88,1	2,2	20		474/1/2
1029	50	2	Rinse water	R+	MM1			20	88,1	2,2	20		474/2
1030	50	2	Cip	Cip B+	MM1			20	88,1	2,2	80	X	474/2
1031	40	1 1/2	Cip	MM1	MST1-MT1-10			20	88,1	3,6	80	X	474/1
1032	65	2 1/2	Coffee Extract	MT1-1	MM1			20	88,1	1,4	5		474/1
1033	65	2 1/2	Coffee Extract	MT1-2	MM1			20	88,1	1,4	5		474/1
1034	65	2 1/2	Coffee Extract	MT1-3	MM1			20	88,1	1,4	5		474/1
1035	65	2 1/2	Coffee Extract	MT1-4	MM1			20	88,1	1,4	5		474/1



# LINELIST - EXTRACTION SUFFOLK



revision: **C** date: June-6-02 name: S.v.d.Schaeaf

LINENR	DN	inch	MEDIUM	FROM	TO	Q average (M <sup>3</sup> /hr)	GPM	Q max. (M <sup>3</sup> /hr)	GPM	V m/s	T (C)	Ins.	P&ID
1036	65	2 1/2	Coffee Extract	MT1-5	MM1			20	88,1	1,4	5		474/1
1037	65	2 1/2	Coffee Extract	MT1-6	MM1			20	88,1	1,4	5		474/1
1038	65	2 1/2	Coffee Extract	MT1-7	MM1			20	88,1	1,4	5		474/1
1039	65	2 1/2	Coffee Extract	MT1-8	MM1			20	88,1	1,4	5		474/2
1040	65	2 1/2	Coffee Extract	MT1-9	MM1			20	88,1	1,4	5		474/2
1041	65	2 1/2	Coffee Extract	MT1-10	MM1			20	88,1	1,4	5		474/2
1042	50	2	Coffee Extract	MST	MM1			5	22,0	0,6	5		474/1
1043	50	2	Coffee Extract	Separator1	MF			10	44,0	1,1	5		484
1044	50	2	Coffee Extract	Separator2	MF			10	44,0	1,1	5		484
1045	50	2	Coffee Extract	FSC	MF			5	22,0	0,6	5		484
1046	50	2	Coffee Extract	MF	FSP			5	22,0	0,6	5		484
1047	50	2	Coffee Extract	MF	FOP-C			15	66,0	1,7	5		484
1048	50	2	Coffee Extract	MF	FOP-1			15	66,0	1,7	5		484
1049	50	2	Cip	MF	Cip B-			20	88,1	2,2	80	X	484
1050	50	2	Rinse water	MF	MRb			20	88,1	2,2	20		484
1051	50	2	Rinse water	R+	MF			20	88,1	2,2	20		484
1052	50	2	Cip	Cip B+	MF			20	88,1	2,2	80	X	484
1053	40	1 1/2	Cip	MF	FST-FT1-10			20	88,1	3,6	80	X	484
1054	50	2	Coffee Extract	FT1	MF			10	44,0	1,1	5		484
1055	50	2	Coffee Extract	FT2	MF			10	44,0	1,1	5		484
1056	50	2	Coffee Extract	FT3	MF			10	44,0	1,1	5		484
1057	50	2	Coffee Extract	FT4	MF			10	44,0	1,1	5		484
1058	50	2	Coffee Extract	FT5	MF			10	44,0	1,1	5		484
1059	50	2	Coffee Extract	FT6	MF			10	44,0	1,1	5		484
1060	50	2	Coffee Extract	FT7	MF			10	44,0	1,1	5		484
1061	50	2	Coffee Extract	FT8	MF			10	44,0	1,1	5		484
1062	50	2	Coffee Extract	FT9	MF			10	44,0	1,1	5		484
1063	50	2	Coffee Extract	FT10	MF			10	44,0	1,1	5		484
1064	50	2	Coffee Extract	FST1	MF			10	44,0	1,1	5		484
1065	50	2	Coffee Extract	MEI	Evaporator1			15	66,0	1,7	5		484/2
1066	50	2	Coffee Extract	MEI	Evaporator2			15	66,0	1,7	5		484/2
1067	50	2	Coffee Extract	SOP	MEI			15	66,0	1,7	5		490/2-472/1
1068	50	2	Coffee Extract	WOP-F	MEI			15	66,0	1,7	5		462-472
1069	50	2	Cip	MEI	Cip A-			20	88,1	2,2	80	X	472
1070	50	2	Rinse water	MEI	Mra			20	88,1	2,2	20		472



# LINELIST - EXTRACTION SUFFOLK



revision: **C** date: June-6-02 name: S.v.d.Schaaf

LINENR	DN	inch	MEDIUM	FROM	TO	Q average (M³/hr)	GPM	Q max. (M³/hr)	GPM	v m/s	T (C)	Ins.	P&ID
1071	50	2	Cip	Cip A+	MEI			20	88,1	2,2	80	X	472
1072	50	2	Rinse water	R+	MEI			20	88,1	2,2	20		472
1073	50	2	Coffee Extract	Evaporator1	MEO			10	44,0	1,1	80	X	472/2
1074	50	2	Coffee Extract	Evaporator2	MEO			10	44,0	1,1	80	X	472/2
1075	50	2	Coffee Extract	MEO	MS			10	44,0	1,1	80	X	472/2-490/2
1076	50	2	Rinse water	R+	MEO			20	88,1	2,2	20		472/2
1077	50	2	Cip	Cip B+	MEO			20	88,1	2,2	80	X	472/2
1078	50	2	Cip	MEO	Cip A-			20	88,1	2,2	80	X	472/2
1079	50	2	Rinse water	MEO	MRb			20	88,1	2,2	20		472/2
1080	50	2	Coffee Extract	MSI	Separator1			10	44,0	1,1	5		482-458
1081	50	2	Coffee Extract	MSI	Separator2			10	44,0	1,1	5		480-482
1082	50	2	Coffee Extract	MSI	Spray/dryer Extract Storage			2	8,8	0,2	5		482
1083	50	2	Coffee Extract	MPa	MSI			10	44,0	1,1	5		486-482
1084	50	2	Cip	MSI	Cip B-			20	88,1	2,2	80	X	482
1085	50	2	Rinse water	MSI	MRb			20	88,1	2,2	20		482
1086	50	2	Cip	Cip B+	MSI			20	88,1	2,2	80	X	482
1087	50	2	Rinse water	R+	MSI			20	88,1	2,2	20		482
1088	50	2	Coffee Extract	Dekanter/pasteuriser	MS			5	22,0	0,6			490/1-490/2
1089	50	2	Coffee Extract	POP	SIP			12	52,8	1,3			462-452
1090	50	2	Coffee Extract	MS	SOP			5	22,0	0,6			490/2
1091	50	2	Coffee Extract	MS	EF1/2								490/2-446/1
1092	40	1 1/2	Cip	MS	ST1-6			10	44,0	1,8			490/2
1093	50	2	Coffee Extract	ST1	MS			15	66,0	1,7			490/2
1094	50	2	Coffee Extract	ST2	MS			15	66,0	1,7			490/2
1095	50	2	Coffee Extract	ST3	MS			15	66,0	1,7			490/2
1096	50	2	Coffee Extract	ST4	MS			15	66,0	1,7			490/2
1097	50	2	Coffee Extract	ST5	MS			15	66,0	1,7			490/2
1098	50	2	Coffee Extract	ST6	MS			15	66,0	1,7			490/2
1099	50	2	Cip	MS	Cip A-			20	88,1	2,2	80	X	490/2
1100	50	2	Rinse water	MS	MRa			20	88,1	2,2	20		490/2-494/1
1101	50	2	Rinse water	R+	MS			20	88,1	2,2	20		700/1-490/2
1102	50	2	Cip	Cip A+	MS			20	88,1	2,2	80	X	490/2
1103	50	2	Cip	MS	Cip B-			20	88,1	2,2	80	X	490/2
1104	50	2	Coffee Extract	MPa	Loading trucks/cont.			15	66,0	1,7	5		486
1105	50	2	Coffee Extract	Loading trucks/cont.	Mpa			15	66,0	1,7	5		486



# LINELIST - EXTRACTION SUFFOLK



revision: C

date: June-6-02

name: S.v.d.Schaaf

LINENR	DN	inch	MEDIUM	FROM	TO	Q average (M <sup>3</sup> /hr)	GPM	Q max. (M <sup>3</sup> /hr)	GPM	v m/s	T (C)	Ins.	P&ID
1106	50	2	Coffee Extract	Finished prod. Cooler	MPa			15	66,0	1,7	5		486
1107	50	2	Cip	MPa	Cip B-			20	88,1	2,2	80	X	486
1108	50	2	Rinse water	MPa	MRb			20	88,1	2,2	20		486-496
1109	50	2	Rinse water	R+	MPa			20	88,1	2,2	20		700-486
1110	50	2	Cip	Cip B+	MPa			20	88,1	2,2	80	X	486
1111	50	2	Proces water	MPI	MPO			30	132,1	3,3	15		502/1-502/2
1112	50	2	Proces water	Evaporator1	MPI			20	88,1	2,2			468/1-502/2
1113	50	2	Proces water	Evaporator2	MPI			20	88,1	2,2			470/1-502/2
1114	50	2	Proces water	MPI	PP1			20	88,1	2,2			502/2
1115	50	2	Proces water	MPI	PP2			20	88,1	2,2			502/2
1116	50	2	Proces water	MPI	PB1			30	132,1	3,3			502/2
1117	100	4	Proces water	PB1	MPI			30	132,1	0,9			502/2
1118	50	2	Proces water	MPI	PB2			30	132,1	3,3			502/2
1119	100	4	Proces water	PB2	MPI			30	132,1	0,9			502/2
1120	50	2	Cip	MPI	PB1			20	88,1	2,2	80	X	502/2
1121	50	2	Cip	MPI	PB2			20	88,1	2,2	80	X	502/2
1122	50	2	Proces water	MPI	Evaporator1			20	88,1	2,2			502/2-468/1
1123	50	2	Proces water	MPI	Evaporator2			20	88,1	2,2			502/2-470/1
1124	50	2	Cip	Cip A+	MPI			20	88,1	2,2	80	X	502/2
1125	50	2	Cip	MPI	Cip A-			20	88,1	2,2	80	X	502/2
1126	50	2	Proces water	PP2	MPO			30	132,1	3,3			502/2-502/1
1127	50	2	Proces water	PP1	MPO			30	132,1	3,3			502/2-502/1
1128	50	2	Proces water	MPO	Evaporator1			20	88,1	2,2			502/1-468/1
1129	50	2	Proces water	MPO	Evaporator2			20	88,1	2,2			502/1-470/1
1130	65	2 1/2	Proces water	MPO	Extraction batt.1			10	44,0	0,7			502/1-449/5
1131	50	2	Cip	IHT	1181 Cip A-			20	88,1	2,2			449/5
1132	50	2	Cip	MPO	Cip A-			20	88,1	2,2	80	X	502/1
1133	50	2	Cip	Cip A+	MPO			20	88,1	2,2	80	X	502/1
1134	50	2	Na+ water	NWB	Battery1			10	44,0	1,1			502/1-449/6
1135	40	1 1/2	Coffee Extract	MS	Spraydryer			5	22,0	0,9			490/446
1136	40	1 1/2	Na+ water	NWB	Separator1			15	66,0	2,7			502/1-458/1
1137	40	1 1/2	Na+ water	NWB	Separator2			15	66,0	2,7			502/1-480/1
1138	50	2	Na+ water	NWB	Spraydryer								502/1-446/1
1139	50	2	Rinse water	MRa	MR			20	88,1	2,2			494/1-492
1140	50	2	Rinse water	MRb	MR			20	88,1	2,2			496/1-492

# LINELIST - EXTRACTION SUFFOLK



revision: **C** date: June-6-02 name: S.v.d.Schaaf

LINENR	DN	inch	MEDIUM	FROM	TO	Q average (M <sup>3</sup> /hr)	Q max. GPM	v m/s	T (C)	Ins.	P&ID
	mm	"				GPM	(M <sup>3</sup> /hr)			X	161
1141	50	2	Rinse water	MRC	MR		20	88,1	2,2		583/1-492
1142	50	2	Rinse water	MR	MS		20	88,1	2,2		492/1-490
1143	50	2	Rinse water	RT4	MR		10	44,0	1,1		492
1144	50	2	Rinse water	RT3	MR		10	44,0	1,1		492
1145	50	2	Rinse water	RT2	MR		10	44,0	1,1		492
1146	50	2	Rinse water	RT1	MR		10	44,0	1,1		492
1147	50	2	Cip	Cip A+	MR		20	88,1	2,2		492
1148	50	2	Rinse water	R+	MR		20	88,1	2,2		700-492
1149	50	2	Cip	MR	Cip A-		20	88,1	2,2		492
1150	40	1 1/2	Cip	MR	RT1-4		10	44,0	1,8		492
1151	50	2	Rinse water	MRA	RIPa		20	88,1	2,2		494
1152	50	2	Rinse water	MSD	MRA		20	88,1	2,2		446/10-494
1153	50	2	Cip	MRA	Cip A-		10	44,0	1,1		494
1154	50	2	Rinse water	R+	MRA		10	44,0	1,1		494
1155	50	2	Cip	Cip A+	MRA		10	44,0	1,1		494
1156	50	2	Rinse water	MRb	RIpB		10	44,0	1,1		494
1157	50	2	Cip	MRb	Cip B-		10	44,0	1,1		494
1158	50	2	Rinse water	R+	MRb		10	44,0	1,1		494
1159	50	2	Cip	Cip A+	MRb		10	44,0	1,1		494
1160	50	2	Rinse water	MRC	Separator1		10	44,0	1,1		583-/458/1
1161	50	2	Rinse water	MRC	Separator2		10	44,0	1,1		583-480/1
1162	50	2	Rinse water	Separator1	MRC		10	44,0	1,1		458-583
1163	50	2	Rinse water	Separator2	MRC		10	44,0	1,1		480-583
1164	50	2	Rinse water	R+	MRC		10	44,0	1,1		700-583
1165	50	2	Cip	Cip A+	MRC		10	44,0	1,1		583
1166	50	2	Coffee Extract	Pigging Inlet station	Pigging Outlet station		15	66,0	1,7	5	488
1167	50	2	Coffee Extract	MPb	Pigging Outlet station		15	66,0	1,7	5	488
1168	25	1	Coffee Extract	MPb	Liquid pack. Mach.1		3,6	15,9	1,4	5	488
1169	25	1	Coffee Extract	Liquid pack. Mach.2	MPb		3,6	15,9	1,4	5	488
1170	25	1	Coffee Extract	FPB	MPb		15	66,0	6,0	5	488
1171	25	1	Cip	MPb	FPB		20	88,1	8,0	80	488
1172	50	2	Rinse water	R+	MPb		20	88,1	2,2	20	700-488
1173	50	2	Cip	Cip C+	MPb		20	88,1	2,2	80	488
1174	50	2	Cip	MPb	Cip C-		20	88,1	2,2	80	488
1175	50	2	Rinse water	MPb	MRb		20	88,1	2,2	20	488-496



# LINELIST - EXTRACTION SUFFOLK



revision: C		date: June-6-02										name: S.v.d.Schaaf	
LINENR	DN	inch	MEDIUM	FROM	TO	Q average		Q max.		v	T	Ins.	P&ID
	mm	"				(M <sup>3</sup> /hr)	GPM	(M <sup>3</sup> /hr)	GPM	m/s	(C)	X	161
1176	50	2	Cip	MPb	Cip B-			20	88,1	2,2	80	X	488
1177	50	2	Cip	Cip B+	MPb			20	88,1	2,2	80	X	488
1178	50	2	Cip	Cip system A	Users			20	88,1	2,2			498/1
1179	50	2	Cip	Cip system B	Users			20	88,1	2,2			498/1
1180	50	2	Cip	Cip system C	Users			20	88,1	2,2			498/1
1181	50	2	Cip	Users	Cip system A			20	88,1	2,2			498/1
1182	50	2	Cip	Users	Cip system B			20	88,1	2,2			498/1
1183	50	2	Cip	Users	Cip system C			20	88,1	2,2			498/1
1184	80	3	Rinse water	CAT	Users			30	132,1	1,5			498
1185	80	3	Rinse water	Rinse water distribution	Users			30	132,1	1,5			700
1186	50	2	Demineralised water	DWB	1111			10	44,0	1,1			502/2
1187	80	3	Rinse water	R+	Cip			30	132,1	1,5			700-498/1
1188	50	2	Coffee Extract	MSD	Spraydryer								446/1
1189	50	2	Coffee Extract	Spraydryer	MSD								446/1
1190	50	2	Coffee Extract	MOP-E	MSI			10	44,0	1,1			474/1-482
1191	50	2	Coffee Extract	Reject-inlet	MPA			2	8,8	0,2			486
1192	50	2	CIP	MPA	Reject-inlet			10	44,0	1,1			486
1193	50	2	Cip	MSD	Cip system A			20	88,1	2,2			446/1
1194	50	2	Cip	Cip system A	MSD			20	88,1	2,2			446/1
1195	50	2	Coffee Extract	ET (extract tank)	MSD			0,75	3,3	0,1			446/1
1196	25	1	Coffee Extract	EPP extract press. pump	D (spraydryer)			0,75	3,3	0,3			446/1
1197	25	1	Cip	D (spraydryer)	MSD			10	44,0	4,0			446/1
1198		#N/B								#N/B			
1199		#N/B								#N/B			
1200		#N/B								#N/B			
1201		#N/B								#N/B			
1202		#N/B								#N/B			
1203		#N/B								#N/B			
1204		#N/B								#N/B			
1205	40	1 1/2	Cooling water	Cooling tower	VC			3	13,2	0,5			
1206	40	1 1/2	Cooling water	VC	Cooling tower			3	13,2	0,5			
1207	50	2	Cooling water	Coolingwater install.	Users			15	66,0	1,7			684
1208	50	2	Cooling water	Users	Coolingwater install.			15	66,0	1,7			684
1209	40	1 1/2	Cooling water	1207	Stripcolumn			0,3	1,3	0,1			452-684
1210	40	1 1/2	Cooling water	Stripcolumn	1208			0,3	1,3	0,1			452-684

# LINELIST - EXTRACTION SUFFOLK



revision: C date: June-6-02 name: S.v.d.Schaaf

LINENR	DN	inch	MEDIUM	FROM	TO	Q average		Q max.		v	T	Ins.	P&ID
	mm	"				(M <sup>3</sup> /hr)	GPM	(M <sup>3</sup> /hr)	GPM	m/s	(C)	X	161
1211	40	1 1/2	Cooling water	1207	MB1			6	26,4	1,1			449/9-684
1212	40	1 1/2	Cooling water	MB1	1208			6	26,4	1,1			449/9-684
1213	150	6	Cooling water	Cooling tower	Evaporator2			175	770,5	2,3			468/2-684
1214	150	6	Cooling water	Evaporator2	Cooling tower			175	770,5	2,3			468/2-684
1215	150	6	Cooling water	Cooling tower	Evaporator1			175	770,5	2,3			470/2-684
1216	150	6	Cooling water	Evaporator1	Cooling tower			175	770,5	2,3			470/2-684
1217	40	1 1/2	Icewater	Icewater Install.	Users								686
1218	40	1 1/2	Icewater	Users	Icewater Install.								686
1219	40	1 1/2	Icewater	1217	DIC / MSC								474-686
1220	40	1 1/2	Icewater	DIC / MSC	1218								474-686
1221	40	1 1/2	Icewater	1217	FCP								486-686
1222	40	1 1/2	Icewater	FCP	1218								486-686
1223	40	1 1/2	Icewater	1217	Ventilation								
1224	40	1 1/2	Icewater	Ventilation	1218								
1225	40	1 1/2	Icewater	1217	Evaporator1								468-686
1226	40	1 1/2	Icewater	Evaporator1	1218								468-686
1227	40	1 1/2	Icewater	1217	Separator1								458-686
1228	40	1 1/2	Icewater	Separator1	1218								458-686
1229	40	1 1/2	Icewater	1217	Evaporator2								470-686
1230	40	1 1/2	Icewater	Evaporator2	1218								470-686
1231	40	1 1/2	Icewater	1217	Separator2								480-686
1232	40	1 1/2	Icewater	Separator2	1218								480-686
1233	40	1 1/2	Icewater	1217	SC								490-686
1234	40	1 1/2	Icewater	SC	1218								490-686
1235	65	2 1/2	Na+ water	Na+ Install.	NWB			20,4	89,8	1,4			688-502/1
1236	40	1 1/2	Demi water	DOB	DWB			10,2	44,9	1,8			690-502/2
1237	50	2	CIP A+	1178	MSD			10	44,0	1,1			446/1
1238	50	2	CIP A-	MSD	1181			10	44,0	1,1			446/1
1239													
1240													
1241													
1242													
1243													
1244													
1245													



# LINELIST - EXTRACTION SUFFOLK



revision: C		date: June-6-02				name: S.v.d.Schaaf							
LINENR	DN	inch	_MEDIUM	FROM	TO	Q average		Q max.		v	T	Ins.	P&ID
	mm	"	—			(M³/hr)	GPM	(M³/hr)	GPM	m/s	(C)	X	161
1246													
1247													
1248													
1249	25	1	Coffee Extract	Stripcolumn	DIC			4	17,6	1,6	20		452-474
1250	20	3/4	Seal water	1072	MEI								472/1
1251	20	3/4	Seal water	1077	MEO								472/2
1252													
1253													
1254	50	2	Rinse water	1028	V?								474/1
1255	20	3/4	Seal water	1029	Users								474
1256	20	3/4	Seal water	1087	Users								482
1257	20	3/4	Seal water	1051	Users								484
1258	20	3/4	Seal water	1051	MF Pumps								484
1259	20	3/4	Seal water	1109	Users								486
1260	20	3/4	Rinse water	1109	V?								486
1261	20	3/4	Seal water	1172	Users								488
1262	20	3/4	Seal water	1261	MPb Pumps								488
1263	50	2	Coffee Extract	Extr. Batt. 1	MPW-1								Moet nog in get.w.
1264	20	3/4	Seal water	1148	Users								492
1265	20	3/4	Seal water	1154	Pump								494
1266	20	3/4	Seal water	1158	Pump								496
1267	20	3/4	Seal water	1164	Users								583
1268	50	2	Rinse water	R+	MRI								502
1269	50	2	Cip	Mixer	Cleaning Unit-1								449/1/2
1270	50	2	Cip	Mixer	Cleaning Unit-1								449/1/2
1271	50	2	Cip	Cleaning Unit	Extractors								449/2/5
1272	50	2	Cip	Extractors	Cleaning Unit-1								449/2/5
1273	50	2	Cip	Extractors	Cleaning Unit-1								449/2/8
1274	50	2	Cip	Cleaning Unit-1	Extractors			5	22,0	0,6	95	X	449/2/5
1275	50	2	Cip	Cleaning Unit-1	MB1								449/2/7
1276	50	2	Cip	Cleaning Unit-1	Extractors								449/2/5
1277	50	2	Cip	Extractors	Cleaning Unit-1								449/2/8
1278	50	2	Cip	IHT	Cleaning Unit-1								449/2/7
1279	50	2	Cip	Cleaning Unit-1	IHT								449/2/6
1280	50	2	Cip	Powder dissolving	Cleaning Unit-1								449/2/9

# LINELIST - EXTRACTION SUFFOLK



revision: C		date: June-6-02								name: S.v.d.Schaaf			
LINENR	DN	inch	MEDIUM	FROM	TO	Q average		Q max.		v	T	Ins.	P&ID
	mm	"				(M <sup>3</sup> /hr)	GPM	(M <sup>3</sup> /hr)	GPM	m/s	(C)	X	161
1281	50	2	Cip	Cleaning Unit-1	powder dissolving								449/2/9
1282	50	2	Coffee Extract	IC-A	MB1								449/6/7
1283	50	2	Coffee Extract	IC-B	MB1								449/6/7
1284	80	3	Coffee Extract	MB-1	SOP-A								449/7
1285	80	3	Coffee Extract	MB-1	SOP-B								449/7
1286	80	3	Coffee Extract	MB-1	PFP								449/7
1287	80	3	Coffee Extract	SWT-1	MB-1								449/7
1288	80	3	Coffee Extract	SWT-2	MB-1								449/7
1289	80	3	Coffee Extract	SWT-3	MB-1								449/7
1290	80	3	Coffee Extract	SBT	MB-1								449/7
1291	50	2	Coffee Extract	PFT	MB-1								449/7
1292	50	2	Coffee Extract	SOP-A	MBP-1			10	44,0	1,1			449/7/9
1293	50	2	Coffee Extract	SOP-B	MBP-1								449/7/9
1294	50	2	Coffee Extract	PFP	PFH								449/7/8
1295	50	2	Coffee Extract	SFP	IC-A								449/5/6
1296	50	2	Coffee Extract	IV-B	SFHC								449/5/6
1297	40	1 1/2	Coffee Extract	PDP	MPB1								449/9
1298	40	1 1/2	Cip	MPB1	PDT								449/9
1299					cancelled								
1300	40	1 1/2	Cip	MB1	Weighingtanks			10	44,0	1,8			449/7
1301	40	1 1/2	Coffee Extract	IP-A	IR-A								449/6
1302	40	1 1/2	Coffee Extract	IR-A	IC-A								449/6
1303	40	1 1/2	Coffee Extract	IP-B	IR-B								449/6
1304	40	1 1/2	Coffee Extract	IR-B	IC-B								449/6



# LIPS - LINELIST - UTILITIES



revision:                      \_date: 18-6-01                      name: G.ten Cate

LINENR	DN		_MEDIUM	FROM	TO	Q average		Q max.		v	T	Ins.	P&ID
	mm	"				(M³/hr)	GPM	(M³/hr)	GPM		(C)		
													161
1501	150	6	TAPWATER	INTAKE STATION	TWB	30,00	132,09	75,0	330,22	1,0	12		682
1502	150	6	TAPWATER	TWB	PRESSURE-UNIT	30,00	132,09	75,0	330,22	1,0	12		682
1503	150	6	TAPWATER	PRESSURE-UNIT	TWH1	30,00	132,09	150,0	---	2,0	12		682
1504	150	6	TAPWATER	TWH1	TWH2	15,00	66,04	100,0	440,30	1,3	12		682
1505	25	1	TAPWATER	TWH1	WASTE WATER TREATMENT	1,00	4,40	2,0	8,81	0,8	12		682-338
1506	80	3	TAPWATER	TWH1	NA+ SOFTENED	20,00	88,06	40,0	176,12	2,0	12		682-688
1507	65	2	TAPWATER	TWH1	DEMI WATER INSTALLATION	5,00	22,01	13,6	59,88	1,0	12		682-690
1508	50	2	TAPWATER	TWH1	COFFEE GROUNDS SYSTEM	1,50	6,60	16,0	70,45	1,7	12		682-698
1509	40	1 1/2	TAPWATER	TWH1	FEEDWATER BOILER	3,50	15,41	6,8	29,94	1,2	12		682-...
1510	25	1	TAPWATER	TWH1	DOMESTIC UTILITY		0,00	0,5	2,20	0,2	12		682
1511	125	5	TAPWATER	LINE 1504	TWH2	15,00	66,04	100,0	440,30	1,9	12		682
1512	80	3	TAPWATER	TWH2	LINE 1524/25/26/27/28		0,00	22,0	96,87	1,1	12		682
1513	80	3	TAPWATER	TWH2	LINE 1529/30/31/32		0,00	21,5	94,66	1,1	12		682
1514	25	1	TAPWATER	TWH2	LINE 1533/34	0,00	0,00	1,0	4,40	0,4	12		682
1515	80	3	TAPWATER	TWH2	LINE 1535/36	10,00	44,03	20,0	88,06	1,0	12		682
1516	25	1	TAPWATER	TWH2	SPRAY DRYER	0,00	0,00	0,4	1,76	0,2	12		682-446
1517	100	4	TAPWATER	TWH2	CLEANING IN PLACE UNIT	3,80	16,73	42,0	184,93	1,2	12		682-498
1518	25	1	TAPWATER	TWH2	CLEANING CHEM. SYSTEM	0,04	0,18	3,0	13,21	1,2	12		682-500
1519	50	2	TAPWATER	TWH2	HOT WATER CLEANING	0,80	3,52	9,0	39,63	1,0	12		682-...
1520	25	1	TAPWATER	TWH2	SAFETY SHOWERS	0,00	0,00	0,5	2,20	0,2	12		682-...
1521	25	1	TAPWATER	TWH2	WASH BASINS	0,00	0,00	0,5	2,20	0,2	12		682-...
1522	25	1	TAPWATER	TWH2	WASH BASINS	0,00	0,00	0,5	2,20	0,2	12		682-...
1523	40	1 1/2	TAPWATER	TWH2 (bij water-defrosting 70 m3/h)	PACKAGING	0,04	0,18	5,0	22,01	0,9	12		682-...
1524	50	2	TAPWATER	TWH2	SPARE CONNECTION (10 m3/h)		0,00	10,0	44,03	1,1	12		682
1525	40	1 1/2	TAPWATER	LINE 1512	EXTR. BATT. CLEANING UNIT 1	0,04	0,18	5,0	22,01	0,9	12		682-449
1526	40	1 1/2	TAPWATER	LINE 1512	POWDER DISSOLVING UNIT 1	0,00	0,00	6,0	26,42	1,1	12		682-449
1527	25	1	TAPWATER	LINE 1512	SECONDARY IN- OUTLET MB1		0,00	0,5	2,20	0,2	12		682-460
1528	25	1	TAPWATER	LINE 1512	IHT		0,00	0,5	2,20	0,2	12		682-449
1529			vervallen										
1530	40	1 1/2	TAPWATER	LINE 1513	EXTR. BATT. CLEANING UNIT 2	0,04	0,18	5,0	22,01	0,9	12		682-460
1531	40	1 1/2	TAPWATER	LINE 1513	POWDER DISSOLVING UNIT 2	0,00	0,00	6,0	26,42	1,1	12		682-460
1532	25	1	TAPWATER	LINE 1513	SECONDARY IN- OUTLET MB2		0,00	0,5	2,20	0,2	12		682-460
1533	50	2	TAPWATER	LINE 1513	STRIP COLUMN 2		0,00	10,0	44,03	1,1	12		682-467
1534	25	1	TAPWATER	LINE 1514	EVAPORATOR 1	0,00	0,00	0,5	2,20	0,2	12		682-468



# LIPS - LINELIST - UTILITIES



revision:		_date: 18-6-01		name: G.ten Cate									
LINENR	DN		_MEDIUM	FROM	TO	Q average		Q max.		v	T	Ins.	P&ID
	mm	"				(M <sup>3</sup> /hr)	GPM	(M <sup>3</sup> /hr)	GPM	m/s	(C)		161
1535	25	1	TAPWATER	LINE 1514	EVAPORATOR 2		0,00	0,5	2,20	0,2	12		682-470
1536	50	2	TAPWATER	LINE 1515	SEPARATOR 1	5	22,01	10,0	44,03	1,1	12		682-458
1537	50	2	TAPWATER	LINE 1515	SEPARATOR 2	5	22,01	10,0	44,03	1,1	12		682-480
1538	150	6	STEAM	SH1(at boiler)	SH2		0,00	1653,0	7278,15	22,1	190	X	162186-696
1539	50	2	STEAM	SH2	SPARE CONNECTION		0,00		0,00	0,0	190	X	696
1540	50	2	STEAM	SH2	SPARE CONNECTION		0,00		0,00	0,0	190	X	696
1541	65	2 1/2	STEAM	SH2	EXTR.BATT.SEC.HEATER 1 (SFH)		0,00	307,0	1351,72	22,9	190	X	696-449
1542	40	1 1/2	STEAM	SH2	EXTR.BATTERY IHT UNIT 1		0,00	128,0	563,58	22,4	190	X	696-449
1543	65	2 1/2	STEAM	SH2	EXTR.BATT.SEC.HEATER 2 (SFH)		0,00	307,0	1351,72	22,9	190	X	696-460
1544	40	1 1/2	STEAM	SH2	EXTR.BATTERY IHT UNIT 2		0,00	128,0	563,58	22,4	190	X	696-460
1545	150	6	STEAM	SH2	REDUCING SYSTEM 12-5 BAR		0,00	1650,0	7264,95	22,0	190	X	696
1546	20	3/4	STEAM/COND.	SH2	LINE 1548		0,00	0,3	1,32	0,2	160	X	696
1547	20	3/4	CONDENSATE	RED. SYST. 12-5 BAR	LINE 1548		0,00	0,3	1,32	0,2	120	X	696
1548	20	3/4	CONDENSATE	LINE 1546/47	LINE 1570		0,00	0,3	1,32	0,2	120	X	696
1549	20	3/4	STEAM/COND.	LINE 1538	CONDENSATE COLLECTING PIPE		0,00	0,3	1,32	0,2	160	X	696
1550	200	8	STEAM	RED. SYST. 12-5 BAR	SH3		0,00	2430,0	10699,28	18,9	190	X	696
1551	40	1 1/2	STEAM	SH3	SPRAY-DRYER		0,00	158,0	695,67	27,7	190	X	696-446
1552	25	1	STEAM	SH3	EXTR. BATT. CLEAN.UNIT 1 (CUH)		0,00	70,8	311,66	27,6	190	X	696-449
1553	90	3 1/2	STEAM	SH3	EXTR.BATT.PRIM.HEATER 1 (PFH)		0,00	608,3	2678,34	22,7	190	X	696-449
1554	40	1 1/2	STEAM	SH3	STRIP COLUMN 1		0,00	135,8	598,06	23,8	190	X	696-452
1555	125	5	STEAM	SH3	EVAPORATOR 1		0,00	1106,0	4869,72	20,8	190	X	696-468
1556	125	5	STEAM	SH3	EVAPORATOR 2		0,00	1106,0	4869,72	20,8	190	X	696-470
1557	90	3 1/2	STEAM	SH3	CLEANING IN PLACE UNIT (CTH)		0,00	702,2	3091,57	26,2	190	X	696-498
1558	20	3/4	STEAM	SH3	SEPARATOR 2		0,00	31,6	139,13	20,5	190	X	696-480
1559	20	3/4	STEAM	SH3	SEPARATOR 1		0,00	31,6	139,13	20,5	190	X	696-458
1560	20	3/4	STEAM	SH3	PASTEURISER & DECANter (MS)		0,00	41,1	180,88	26,6	190	X	696-490
1561	40	1 1/2	STEAM	SH3	HOT WATER CLEANING		0,00	110,6	486,97	19,4	190	X	696-.....
1562	65	2 1/2	STEAM	SH3	DEFROSTING TRAYFREEZER		0,00	344,1	1515,18	25,7	190	X	696
1563	65	2 1/2	STEAM	SH3	HEATING SYSTEM MAINBUILDING		0,00	282,0	1241,65	21,1	190	X	696
1564	100	4	STEAM	SH3	OUTLET SAFETY VALVE		0,00		0,00	0,0	190	X	696
1565	20	3/4	STEAM/COND.	SH3	CONDENSATE COLLECTING PIPE		0,00	0,3	1,32	0,2	160	X	696
1566	20	3/4	CONDENSATE	LINE 1564	SEWER		0,00		0,00	0,0	120	X	696-692
1567	50	2	CONDENSATE	SPARE CONNECTION	CH1		0,00		0,00	0,0	120	X	696
1568	80	3	CONDENSATE	LINE 1578/79/80	CH1		0,00	7,3	32,27	0,4	120	X	696



# LIPS - LINELIST - UTILITIES



revision: \_date: 18-6-01

name: G.ten Cate

LINENR	DN		_MEDIUM	FROM	TO	Q average		Q max.		v	T	Ins.	P&ID
	mm	"				(M³/hr)	GPM	(M³/hr)	GPM		(C)		
													161
1569	80	3	CONDENSATE	LINE 1576/77	CH1		0,00	12,9	56,61	0,6	120	X	696
1570	80	3	CONDENSATE	LINE 1548/49/	CH1		0,00	13,5	59,26	0,7	120	X	696
1571	125	5	CONDENSATE	LINE 1565/	CH1		0,00	36,3	159,63	0,7	120	X	696
1572	25	1	CONDENSATE	SPRAY-DRYER	CH1		0,00	1,0	4,40	0,4	120	X	696-446
1573	50	2	CONDENSATE	SPARE CONNECTION	CH1		0,00		0,00	0,0	120	X	696
1574	125	5	CONDENSATE	CH1	CBT		0,00	35,0	153,88	0,7	120	X	696
1575	125	5	CONDENSATE	CH1	CBT		0,00	35,0	153,88	0,7	120	X	696
1576	65	2 1/2	CONDENSATE	EXTR.BATT.SEC.HEATER 2 (SFH)	LINE 1569		0,00	6,9	30,20	0,5	120	X	696-460
1577	65	2 1/2	CONDENSATE	EXTR.BATTERY IHT UNIT 2	LINE 1569		0,00	6,0	26,42	0,4	120	X	696-460
1578	25	1	CONDENSATE	STRIP COLUMN 2	LINE 1568		0,00	0,9	3,88	0,3	120	X	696-466
1579	25	1	CONDENSATE	EXTR. BATT. CLEANING UNIT 2	LINE 1568		0,00	0,7	2,96	0,3	120	X	696-460
1580	65	2 1/2	CONDENSATE	EXTR.BATT.PRIM.HEATER 2 (SFH)	LINE 1568		0,00	5,8	25,43	0,4	120	X	696-460
1581	65	2 1/2	CONDENSATE	EXTR.BATT.SEC.HEATER 1 (SFH)	LINE 1570		0,00	6,9	30,20	0,5	120	X	696-449
1582	65	2 1/2	CONDENSATE	EXTR.BATTERY IHT UNIT 1	LINE 1570		0,00	6,0	26,42	0,4	120	X	696-449
1583	25	1	CONDENSATE	EXTR. BATT. CLEAN.UNIT 1 (CUH)	LINE 1571		0,00	0,7	2,96	0,3	120	X	696-449
1584	65	2 1/2	CONDENSATE	EXTR.BATT.PRIM.HEATER 1 (PFH)	LINE 1571		0,00	5,8	25,43	0,4	120	X	696-449
1585	25	1	CONDENSATE	STRIP COLUMN 1	LINE 1571		0,00	0,9	3,88	0,3	120	X	696-452
1586	80	3	CONDENSATE	EVAPORATOR 1	LINE 1571		0,00	10,5	46,23	0,5	120	X	696-468
1587	80	3	CONDENSATE	EVAPORATOR 2	LINE 1571		0,00	10,5	46,23	0,5	120	X	696-470
1588	65	2 1/2	CONDENSATE	CLEANING IN PLACE UNIT	LINE 1571		0,00	6,7	29,35	0,5	120	X	696-498
1589	20	3/4	CONDENSATE	SEPARATOR 2	LINE 1571		0,00	0,3	1,32	0,2	120	X	696-480
1590	20	3/4	CONDENSATE	SEPARATOR 1	LINE 1571		0,00	0,3	1,32	0,2	120	X	696-458
1591	15	1/2	CONDENSATE	PASTEURISER & DECANTER	LINE 1571		0,00	0,1	0,26	0,1	120	X	696-490
1592	20	3/4	CONDENSATE	HOT WATER CLEANING	LINE 1571		0,00	0,3	1,32	0,2	120	X	696-.....
1593	65	2 1/2	CONDENSATE	CBT	CP1		0,00	13,0	57,24	1,0	120	X	696
1594	65	2 1/2	CONDENSATE	CBT	CP2		0,00	13,0	57,24	1,0	120	X	696
1595	25	1	CONDENSATE	CBT	SPRAY-DRYER		0,00	1,0	4,40	0,4	120	X	696-446
1596	50	2	CONDENSATE	CP1/CP2	BOILER		0,00	13,0	57,24	1,4	120	X	696-162187
1597	65	2 1/2	CONDENSATE	DEFROSTING TRAYFREEZER	LINE 1592		0,00	3,3	14,38	0,2	120	X	
1598		#N/B					0,00		0,00	#N/B			
1599		#N/B					0,00		0,00	#N/B			
1600	150	6	COFFEE GROUNDS	BATTERY 1 & 2	CC	10	44,03	12,0	52,84	n.t.b.			698
1601	100	4	COFFEE GROUNDS	CC	CCP1	14	61,64	20,0	88,06	0,6			698
1602	100	4	COFFEE GROUNDS	CC	CCP2	14	61,64	20,0	88,06	0,6			698



# LIPS - LINELIST - UTILITIES



revision:		_date: 18-6-01		name: G.ten Cate									
LINENR	DN		_MEDIUM	FROM	TO	Q average		Q max.		v	T	Ins.	P&ID
	mm	"				(M³/hr)	GPM	(M³/hr)	GPM	m/s	(C)		161
1603	100	4	COFFEE GROUNDS	CCP1 / CCP2	RS	14	61,64	20,0	88,06	0,6			698
1604	65	2 1/2	SPOOLWATER	VOTP	LINE 1603		0,00	10,0	44,03	0,7			698
1605	100	4	SPOOLWATER	CP1	WB	5	22,01	7,0	30,82	0,2			698
1606	80	3	SPOOLWATER	VOT	VOTP		0,00	10,0	44,03	0,5			698
1607	100	4	SPOOLWATER	RS	WB	2	8,81	8,0	35,22	0,2			698
1608	100	4	SPOOLWATER	SB	RT	9	39,63	14,0	61,64	0,4			698
1609	65	2 1/2	SPOOLWATER	RT	RTP1	4	17,61	9,5	41,83	0,7			698
1610	65	2 1/2	SPOOLWATER	RTP1	CC	4	17,61	9,5	41,83	0,7			698
1611	65	2 1/2	SPOOLWATER	RT	RTP2	5	22,01	6,0	26,42	0,4			698
1612	65	2 1/2	SPOOLWATER	RTP2	VOT	5	22,01	6,0	26,42	0,4			698
1613	80	3	SPOOLWATER	WB	WBP1 / WBP2	12	52,84	14,0	61,64	0,7			698
1614	100	4	SPOOLWATER	CP2	WB	5	22,01	7,0	30,82	0,2			698
1615	100	4	SPOOLWATER	V1	WB		0,00	5,0	22,01	0,1			698
1616	100	4	SPOOLWATER	LINE 1608	WB		0,00	14,0	61,64	0,4			698
1617	80	3	SPOOLWATER	V1	VVT1	2,5	11,01	8,0	35,22	0,4			698
1618	90	3 1/2	SPOOLWATER	VVT1	VFP1 / VFP2	2,5	11,01	8,0	35,22	0,3			698
1619	65	2 1/2	SPOOLWATER	WBP1 / WBP2	LINE 1612	12	52,84	14,0	61,64	1,0			698
1620	65	2 1/2	SPOOLWATER	LINE 1612	V1	2	8,81	3,5	15,41	0,3			698
1621	65	2 1/2	SPOOLWATER	LINE 1619	SB	12	52,84	20,0	88,06	1,5			698
1622	150	6	AIR	VVT1	VVP1		0,00	500,0	2201,50	6,7			698
1623	25	1	TAPWATER	PPR	V1		0,00	5,0	22,01	2,0	12		698
1624	50	2	SPOOLWATER	VOT	SEWER		0,00	6,0	26,42	0,7			698
1625	25	1	TAPWATER	LINE 1508	(CWT)		0,00	5,0	22,01	2,0	12		698
1626	40	1 1/2	TAPWATER	LINE 1508	RS		0,00	5,0	22,01	0,9	12		698
1627	25	1	TAPWATER	LINE 1626	SB		0,00	5,0	22,01	2,0	12		698
1628	25	1	TAPWATER	LINE 1626	MV1		0,00	5,0	22,01	2,0	12		698
1629	25	1	TAPWATER	LINE 1628	PPR		0,00	5,0	22,01	2,0	12		698
1630	100	4	SPOOLWATER	V1	VVT1			8,0	35,22	0,2			698
1640	25	1	TAPWATER	LINE 1520	SAFETY SHOWERS EXTRACTION			0,5	2,20	0,2	12		682-...
1641	25	1	TAPWATER	LINE 1520	WASH BASINS EXTRACTION			0,5	2,20	0,2	12		682-...
1642	25	1	TAPWATER	LINE 1520	DOMESTIC EXTRACTION			0,5	2,20	0,2	12		682-...
1643	50	2	TAPWATER	TWH1	BOILERROOM			10,0	44,03	1,1	12		682
1644	100	4	SPOOLWATER	LINE 1608	RT			14,0	61,64	0,4			698
1645	25	1	TAPWATER	LINE 1508	CC			5,0	22,01	2,0	12		698

# LIPS - LINELIST - UTILITIES



revision: \_date: 18-6-01 name: G.ten Cate

LINENR	DN		_MEDIUM	FROM	TO	Q average		Q max.		v	T	Ins.	P&ID
	mm	"				(M³/hr)	GPM	(M³/hr)	GPM	m/s	(C)		161
1646	25	1	TAPWATER	LINE 1508	LINE 1601/ 1602			2,0	8,81	0,8	12		698
1647	15	1/2	TAPWATER	LINE 1628	CP1			0,5	2,20	0,5	12		698
1648	15	1/2	TAPWATER	LINE 1628	CP2			0,5	2,20	0,5	12		698
1649	50	2	TAPWATER	TWH1	HOT WATER CLEANING			9,0	39,63	1,0	12		682
1650	25	1	CHEMICAL 1	CP0	LINE 1652								500
1651	25	1	CHEMICAL 1	CP1	LINE 1652								500
1652	25	1	CHEMICAL 1	LINE 1650 / 1651	EXTRACTION BUILDING								500
1653	25	1	CHEMICAL 2	MP2	EXTRACTION BUILDING								500
1654	25	1	CHEMICAL 3	MP3	EXTRACTION BUILDING								500
1655	25	1	CHEMICAL 4	MP4	EXTRACTION BUILDING								500
1656	25	1	CHEMICAL 5	CPD5	EXTRACTION BUILDING								500
1657	25	1	CHEMICAL 6	CPD6	EXTRACTION BUILDING								500
1658		#N/B											500
1659		#N/B											500
1660		#N/B											500
1661		#N/B											500
1662		#N/B											500
1663		#N/B											500
1664		#N/B											500
1665		#N/B											500
1666		#N/B											500
1667		#N/B											500
1668		#N/B											500
1669		#N/B											500
1670		#N/B											500
1671		#N/B											500
1672	80	3	SPOOLWATER	VFP1 / VFP2	WWT	2,5		8,0	35,22	0,4			698
1673													
1674													
1675													
1676													
1677													
1678													
1679													



# LIPS - LINELIST - UTILITIES



revision: \_date: 18-6-01

name: G.ten Cate

LINENR	DN		_MEDIUM	FROM	TO	Q average		Q max.		v	T	Ins.	P&ID
	mm	"				(M <sup>3</sup> /hr)	GPM	(M <sup>3</sup> /hr)	GPM		(C)		
													161
1680	50	2	Compressed air	PD1	LINE 1682				0,0				692
1681	50	2	Compressed air	PD2	LINE 1682				0,0				692
1682	50	2	Compressed air	LINE 1681/ 1682	PBT1				0,0				692
1683	50	2	Compressed air	PBT1	PH1				0,0				692
1684	50	2	Compressed air	MOVABLE COMPRESSOR	PH1				0,0				692
1685	40	1 1/2	Compressed air	PH1	WASTE WATER TREATMENT				0,0				692
1686	40	1 1/2	Compressed air	PH1	COFFEE GROUNDS SYSTEM				0,0				692
1687	40	1 1/2	Compressed air	PH1	DUST COLLECTOR BOILER				0,0				692
1688	40	1 1/2	Compressed air	PH1	LINE 1689/ 1690				0,0				692
1689	40	1 1/2	Compressed air	LINE 1688	PBT3				0,0				692
1690	40	1 1/2	Compressed air	LINE 1688	PBT4				0,0				692
1691	40	1 1/2	Compressed air	PBT3	PH2				0,0				692
1692	40	1 1/2	Compressed air	PH2	1st Floor				0,0				692
1693	40	1 1/2	Compressed air	PH2	2nd Floor				0,0				692
1694	40	1 1/2	Compressed air	PH2	3th Floor				0,0				692
1695	40	1 1/2	Compressed air	PH2	4th Floor				0,0				692
1696	25	1	Compressed air	1680	Evaporator1				0,0				468-692
1697	25	1	Compressed air	1680	Evaparator2				0,0				470-692
1698	25	1	Compressed air	1680	Spraydryer				0,0				446/1-692
1699	25	1	Compressed air	1680	Roasted coffee				0,0				442/1-692
1700	25	1	Compressed air	1680	Cheaning chemicals				0,0				500/1-692
1701	25	1	Compressed air	1681	Extraction batt.1				0,0				449/3-692
1702	25	1	Compressed air	1681	Extraction batt.2				0,0				460/3-692
1703	25	1	Compressed air	1682	Strip column 1				0,0				452/1-692
1704	25	1	Compressed air	1682	Strip column 2				0,0				466/1-692
1705	40	1 1/2	Compressed air	PBT4	PH3				0,0				692
1706	25	1	Compressed air	PH3	Packaging department				0,0				692
1707	25	1	Compressed air	PH3	Packaging department				0,0				692
1708													
1709													
1710													
1711													
1712													
1713													

# LIPS - LINELIST - UTILITIES



revision: \_date: 18-6-01

name: G.ten Cate

LINENR	DN		_MEDIUM	FROM	TO	Q average		Q max.		v	T	Ins.	P&ID
	mm	"				(M³/hr)	GPM	(M³/hr)	GPM	m/s	(C)		
1714													161
1715													
1716													
1717													
1718													
1719	40	1 1/2	STEAM	SH1	LINE 1721		0,00	151,0	664,85	26,4	190	X	
1720	100	4	STEAM	SH4	ROOF		0,00		0,00	0,0	190	X	
1721	65	2 1/2	STEAM	SH1	SH4		0,00	316,0	1391,35	23,6	190	X	
1722	40	1 1/2	STEAM	SH4	HOT WATER CLEANING		0,00	158,0	695,67	27,7	190	X	
1723	40	1 1/2	STEAM	SH4	HEATING SYSTEM Utility Building		0,00	141,0	620,82	24,7	190	X	
1724	50	2	STEAM	SH4	SPARE CONNECTION		0,00		0,00	0,0	190	X	
1725	50	2	STEAM	SH4	SPARE CONNECTION		0,00		0,00	0,0	190	X	
1726	20	3/4	CONDENSATE	SH4	CONDENSATE TANK				0,00	0,0	120	X	
1727	40	1 1/2	STEAM	LINE 1554	SHH		0,00	143,7	632,63	25,2	190	X	
1728	65	2 1/2	STEAM	LINE 1557	CTH1		0,00	351,1	1545,79	26,2	190	X	
1729	65	2 1/2	STEAM	LINE 1557	CTH2		0,00	351,1	1545,79	26,2	190	X	
1730	65	2 1/2	CONDENSATE	CTH1	1588			3,3	14,68	0,2	120	X	
1731	65	2 1/2	CONDENSATE	CTH2	1588			3,3	14,68	0,2	120	X	
1732	40	1 1/2	STEAM	LINE 1542	ISH-A		0,00	124,8	549,34	21,8	190	X	
1733	40	1 1/2	STEAM	LINE 1543	ISH-B		0,00	124,8	549,34	21,8	190	X	
1734	50	2	CONDENSATE	ISH-A	LINE 1582			2,5	11,14	0,3	120	X	
1735	50	2	CONDENSATE	ISH-B	LINE 1583			2,5	11,14	0,3	120	X	
1736		#N/B							0,00	#N/B			
1737		#N/B							0,00	#N/B			
1738		#N/B							0,00	#N/B			
1739		#N/B							0,00	#N/B			

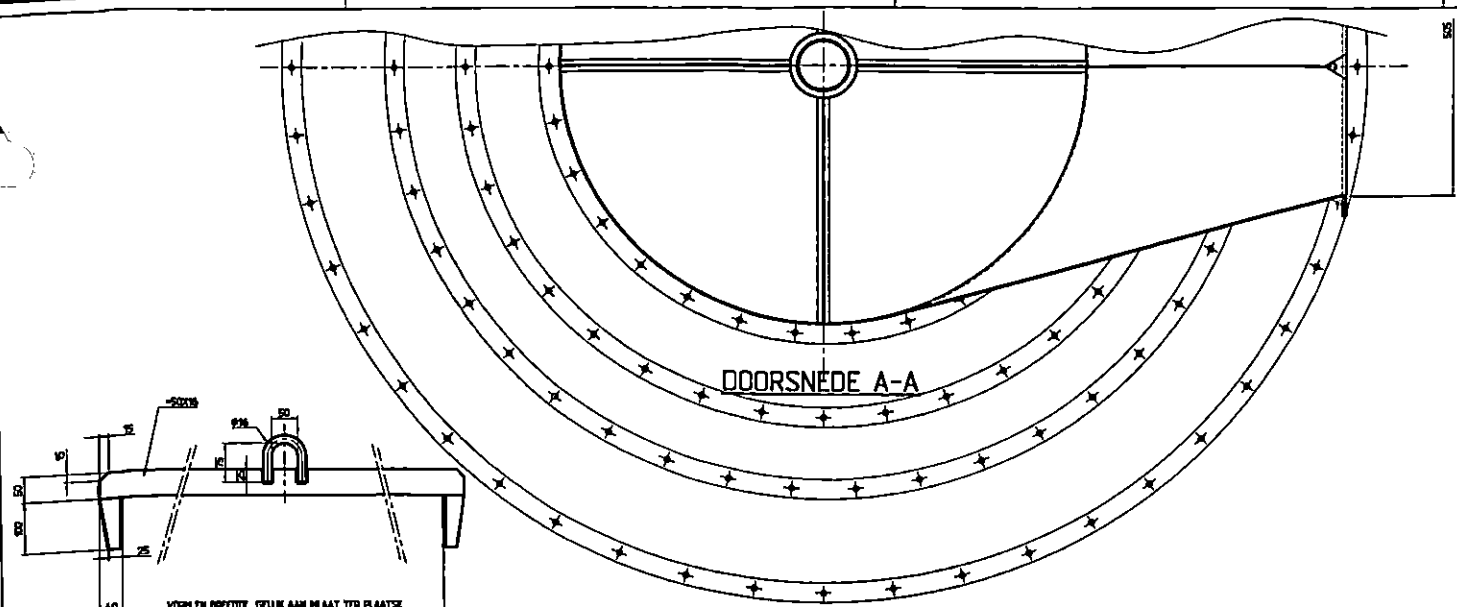
**SPraydryer**  
**APPARATUS CODELIST**

<b>App.code</b>	<b>Description</b>
AB	Air Blower
AC	Air Cooler
AF	Air Filter
AH	Air Heater
AHC	Air Heater Condensatevalve
AI	Air Inletvalve
CI	Cleaning Inlet
CIM	Cleaning Inlet Manifold
CIS	Cleaning Inlet Sewervalve
CO	Cleaning Outlet
COM	Cleaning Outlet Manifold
COS	Cleaning Outlet Sewervalve
CP	Condensate Pump
CROP	Cleaning Rinsing Outlet Pump
D	Dryer
DC	Dryer Cyclone
DCOS	Dryer Cyclone Outletvalve Seal
DCPO	Dryer Cyclone Powder Outlet
DCR	Dryer Cyclone Rotarylock
DCS	Dryer Cool air Section
DIA	Dryer Inlet Air
DIV	Dryer Inlet air Fan
DOA	Dryer Outlet Air+B76
DOF	Dryer Outlet air Fan
DOV	Dryer Outlet air Valve
DPB	Dryer Powder Bin
DPO	Dryer Powder Outlet
DPOR	Dryer Powder Outlet Rotarylock
DPOS	Dryer Powder Outlet Seal
DV	Dryer Vibrator
EF	Extract Filter
EFI	Extract Filter Inlet
EFO	Extract Filter Outlet
EIS	Extract Inlet Sewervalve
EIV	Extract Inlet Valve
EPCB	Extract Pump Cleaning By-pass
EPP	Extract Pressure Pump
ET	Extract Tank
ETI	Extract Tank Inletvalve
ETIC	Extract Tank Inlet Cleaning valve
EV	End Valve

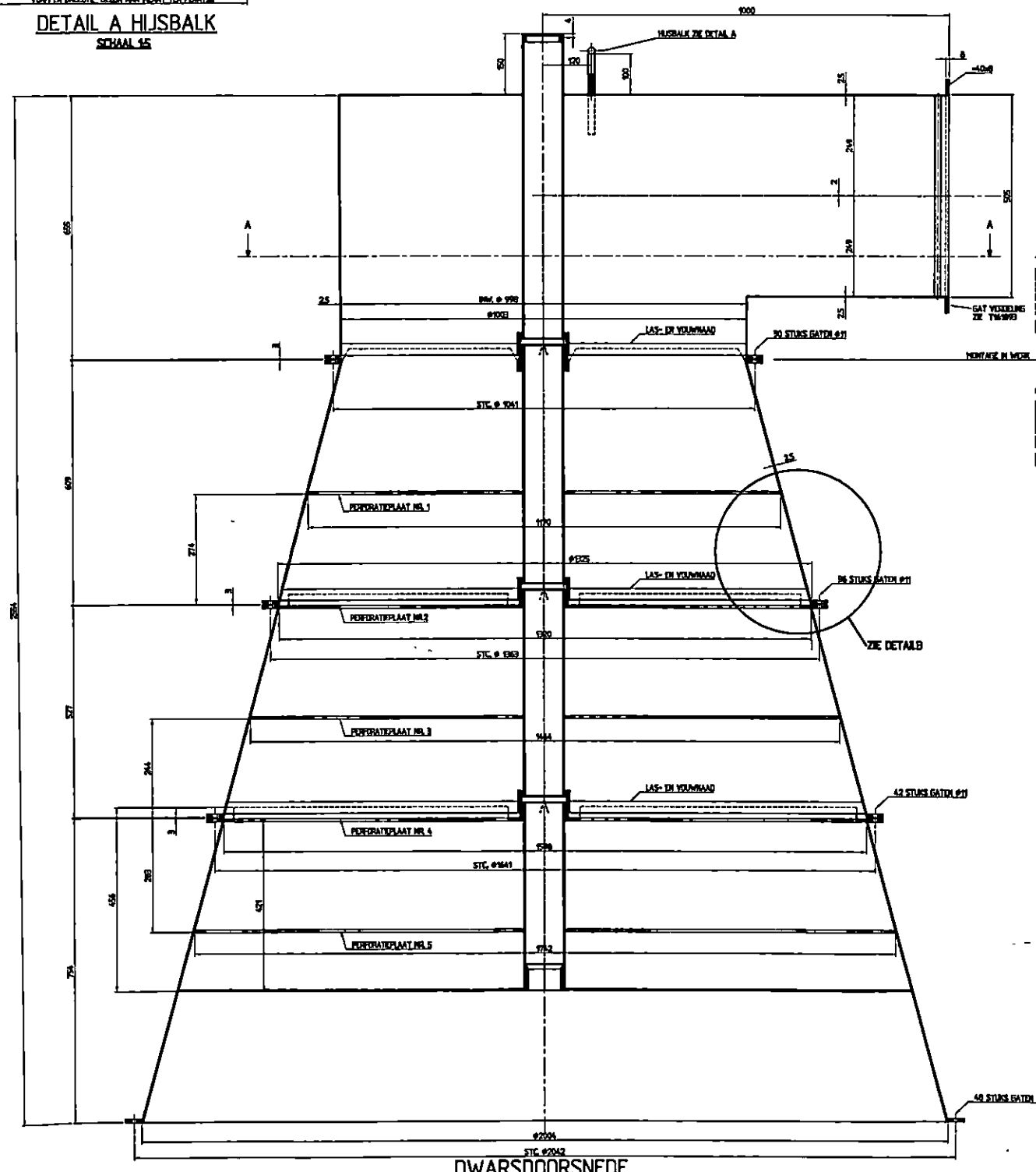


**SPraydryer**  
**APPARATUS CODELIST**

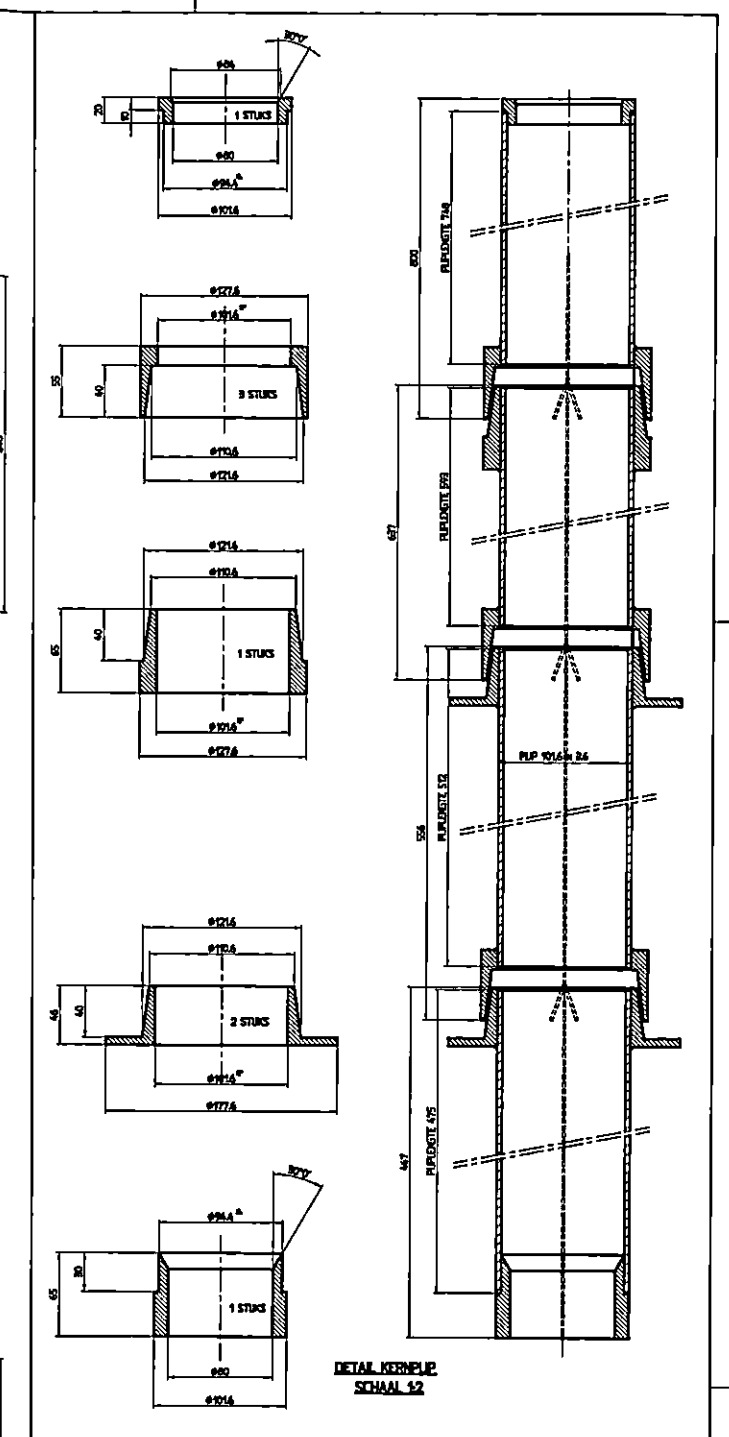
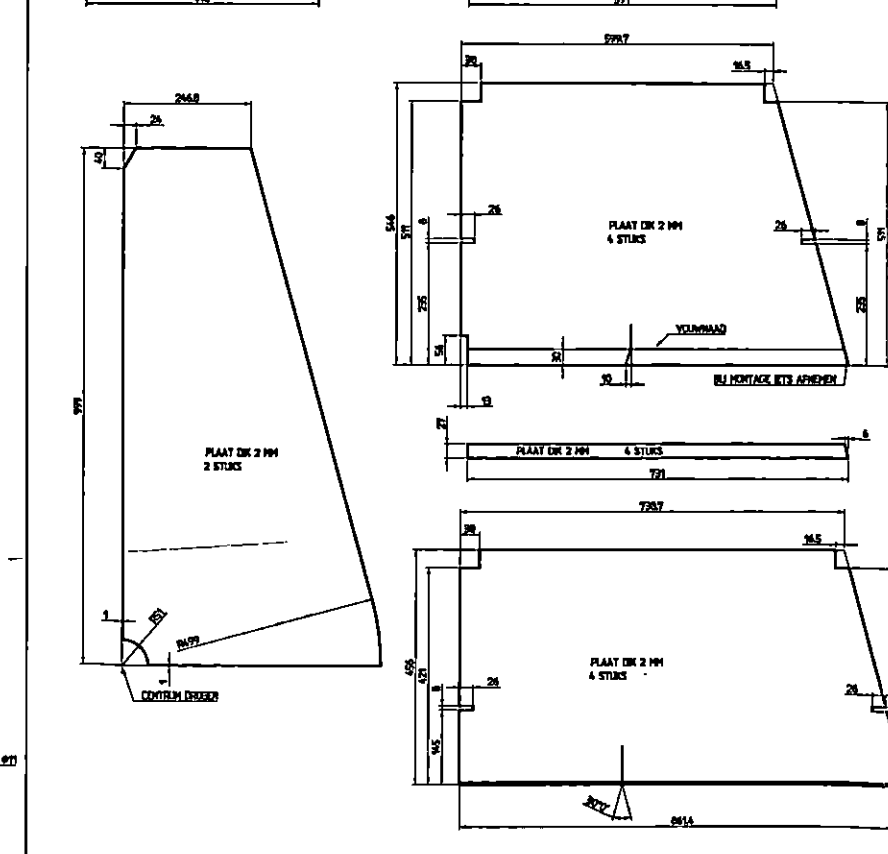
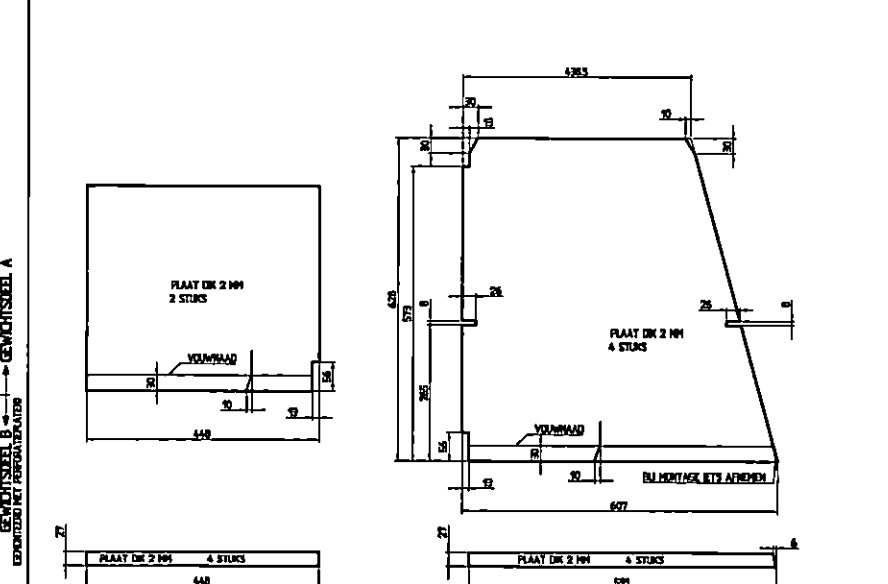
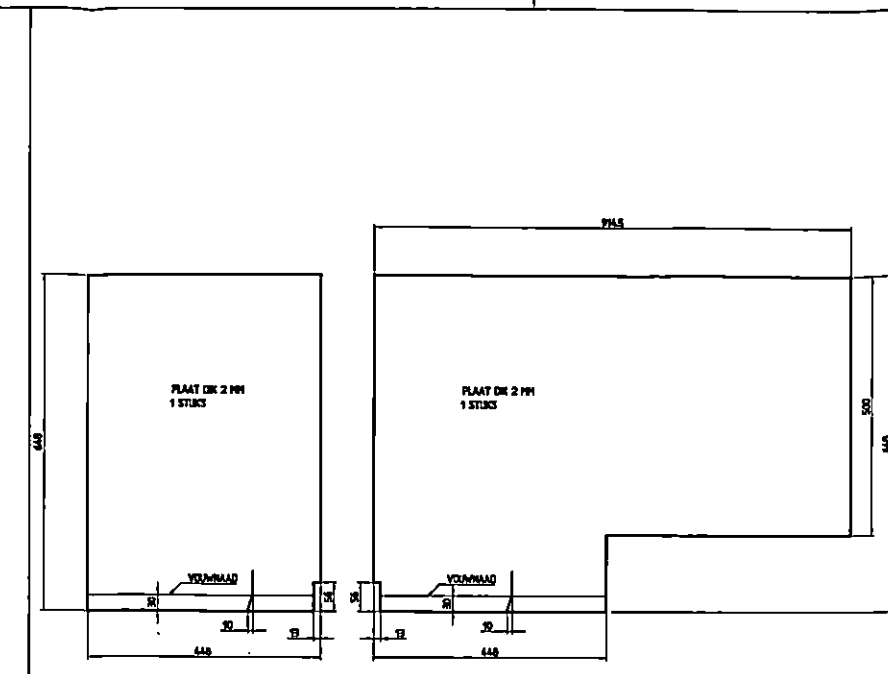
<b>App.code</b>	<b>Description</b>
F	Furnace
FAF	Furnace Air Filter
FG	Furnace Gas Rotarylock
FH	Furnace Hatch
FIA	Furnace Inlet Air
FIF	Furnace Inlet Fan
FIV	Furnace Inlet Valve
FOA	Furnace Outlet Air
FPG	Furnace Pilot Gas
FPVV	Furnace Pilot Vent. Valve
FVV	Furnace Vent.Valve
GB	Gas Bottle
GDB	Gas Draining Bottle
GH	Gas Heater
GI	Gas Injector
GIV	Gas Injector Valve
GS	Gas Saturation
MSD	Manifold Spray Dryer
RI	Rinsing Inlet Valve
RO	Rinsing Outlet Valve
RT	
SB	Storage Bin
SV	Selection Valve
SVR	Selection Valve Rinsing valve



DETAIL A HJISBALK  
SCHAAL 1:5

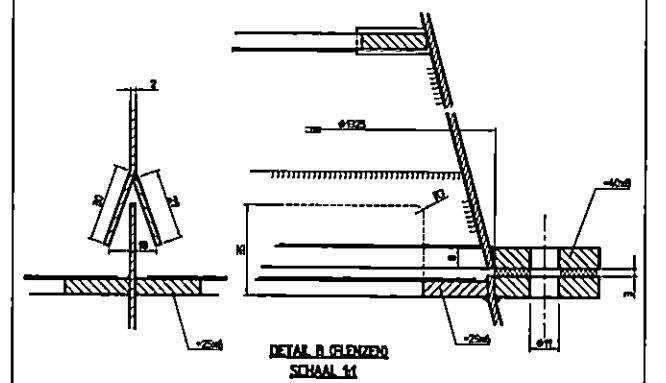


DWARSDOORSNEDE



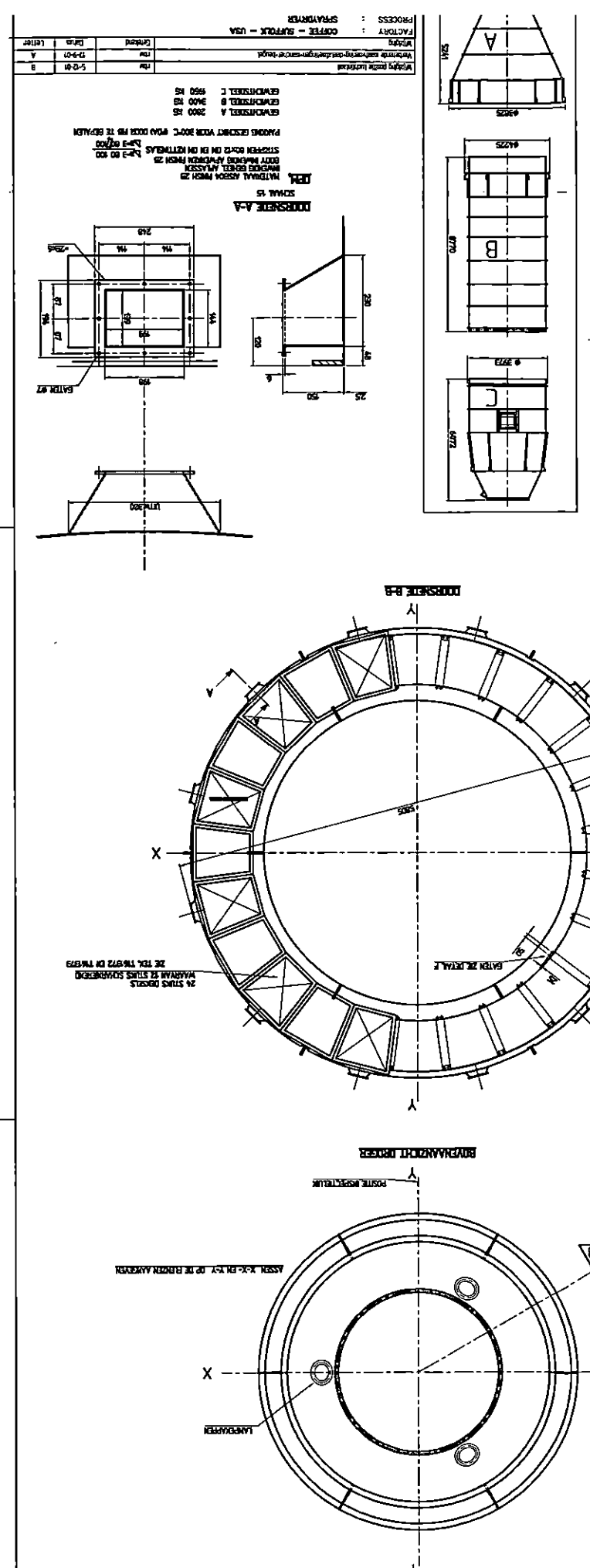
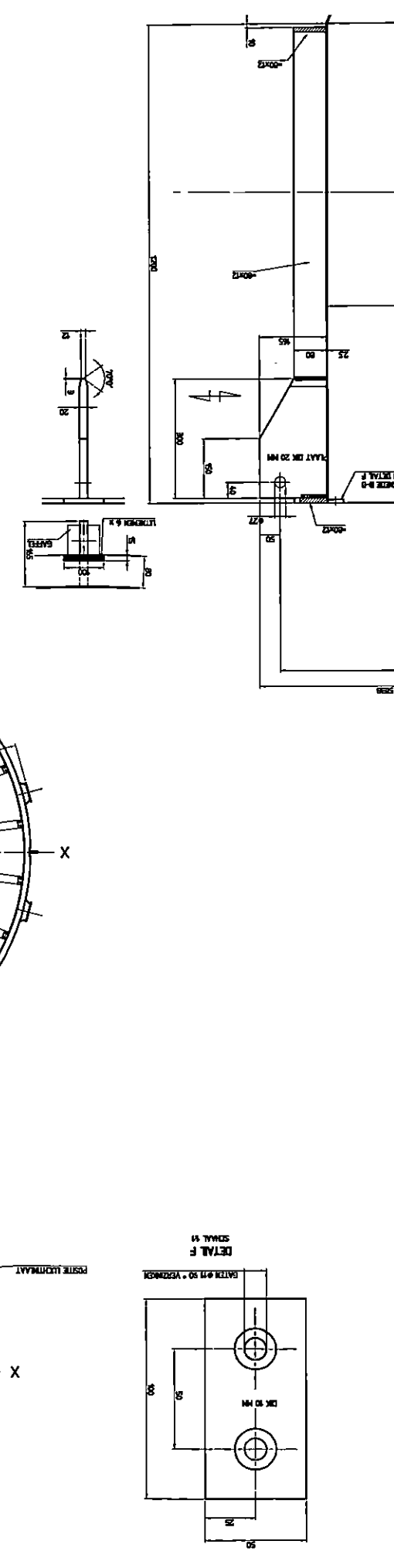
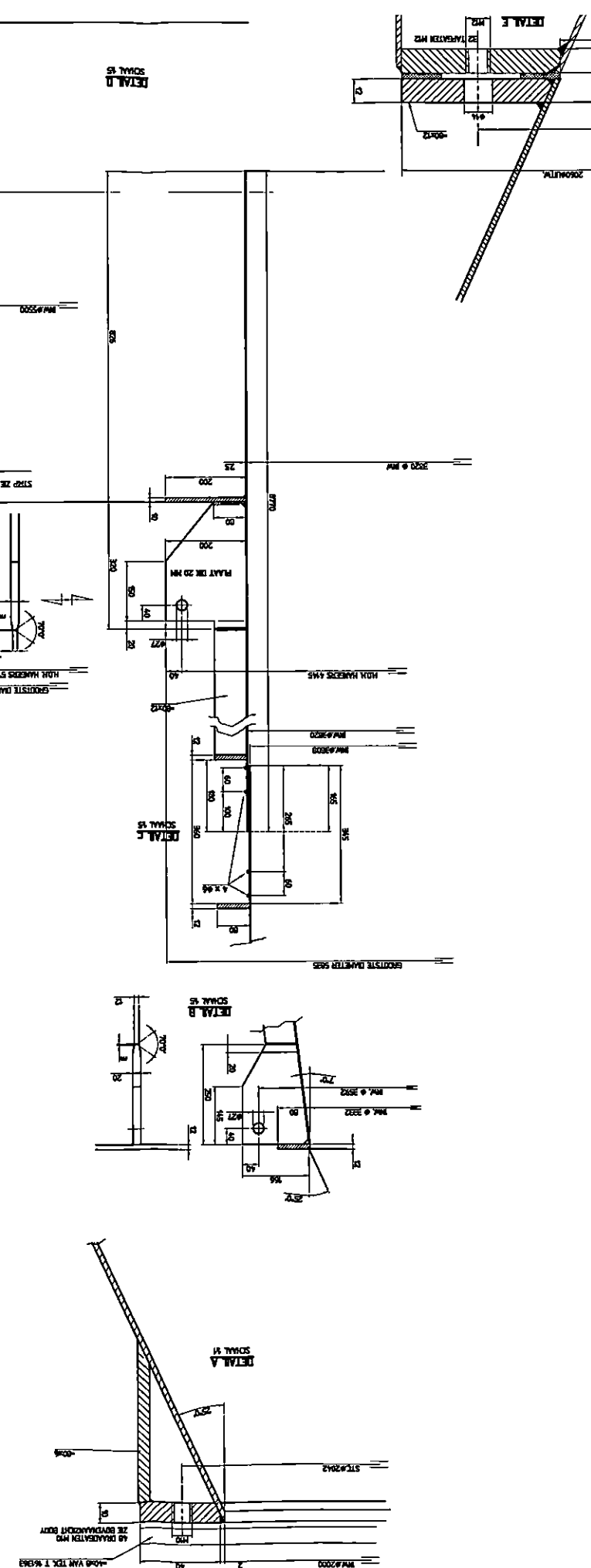
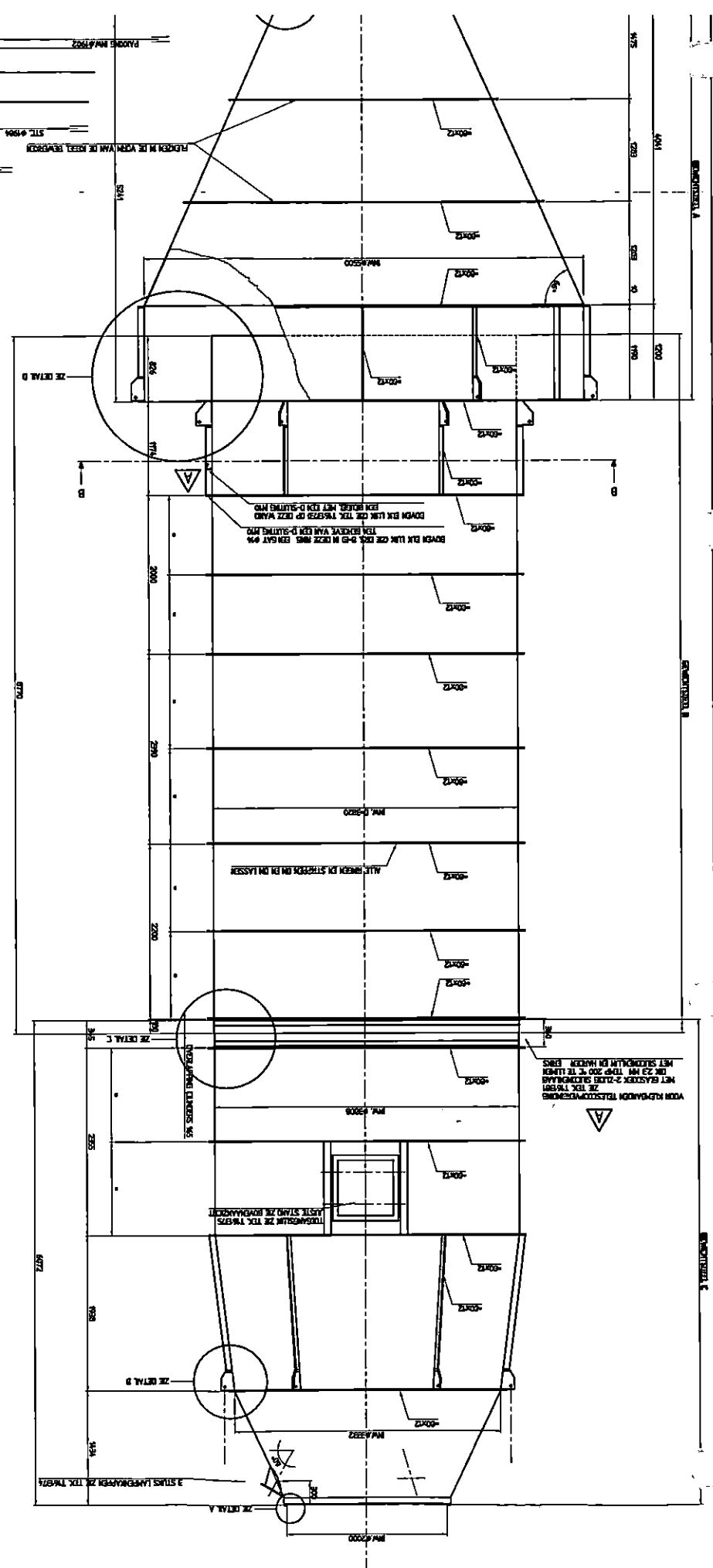
DETAIL A HJISBALK  
SCHAAL 1:5

DETAIL B GLENZEND  
SCHAAL 1:5



OPM: MATERIAAL: AISI 304  
 PAKKING GESCHIEDT VOOR 300° C (FWD) DOOR FIBER TE BEPALEN  
 BINNENKLEPPEN VOORZIE VAN KETTINGLASSEN  
 BUITENKLEPPEN GEMET AFSLASSEN  
 LASSEN BEITSEN EN PASSIVEREN  
 BINNENKLEPPEN PERFORATEPLAAT NR. 5 POLLEN TOT FINISH 20  
 GEWICHTSDEEL A 10  
 GEWICHTSDEEL B 10 1 GEMIDDELD MET TMS66 EN TMS65 9

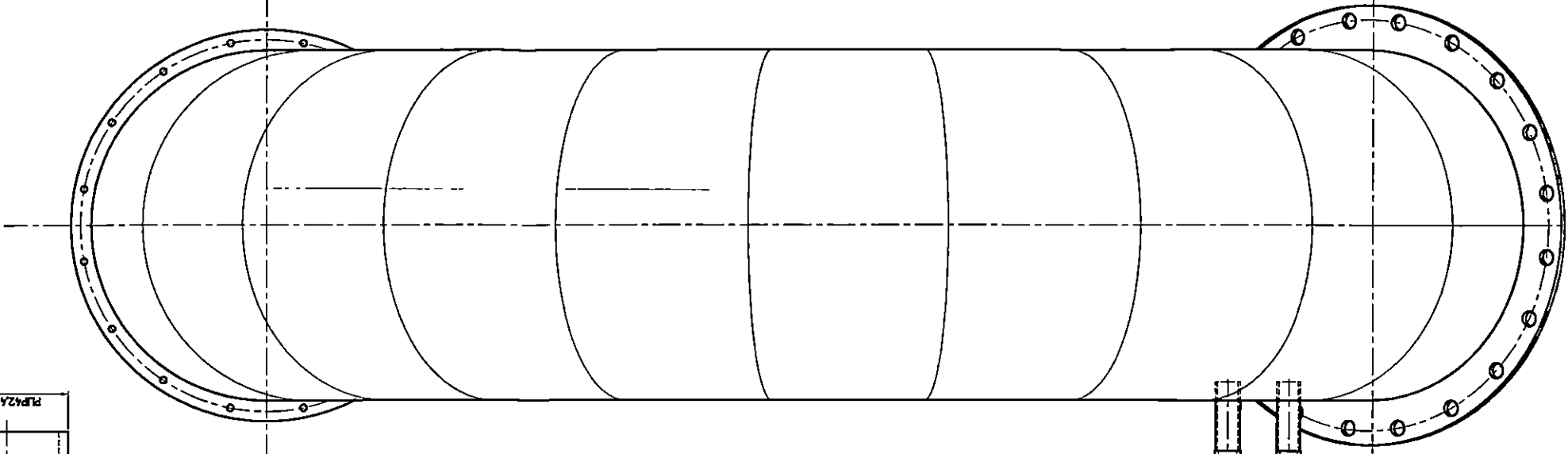
Project	17-9-01	A
Factory	COFFEY - SURFLOK - USA	
Process	SPRAYDRYER	
Part	AIR-BULEY	
Scale	1:1.5	
Aut./R. W. W.	Def: Nov-15-00	
Chk.: R. W.	Def:	
Mod.: R. W.	Def: 17-9-01	
Size	CAD-File: T181363	
Code	CODE: MI 0000	
Page	PAGE: 1 A	
Of: 1	OF: 1	
Drawing No.	DRAWING No.: T181363	



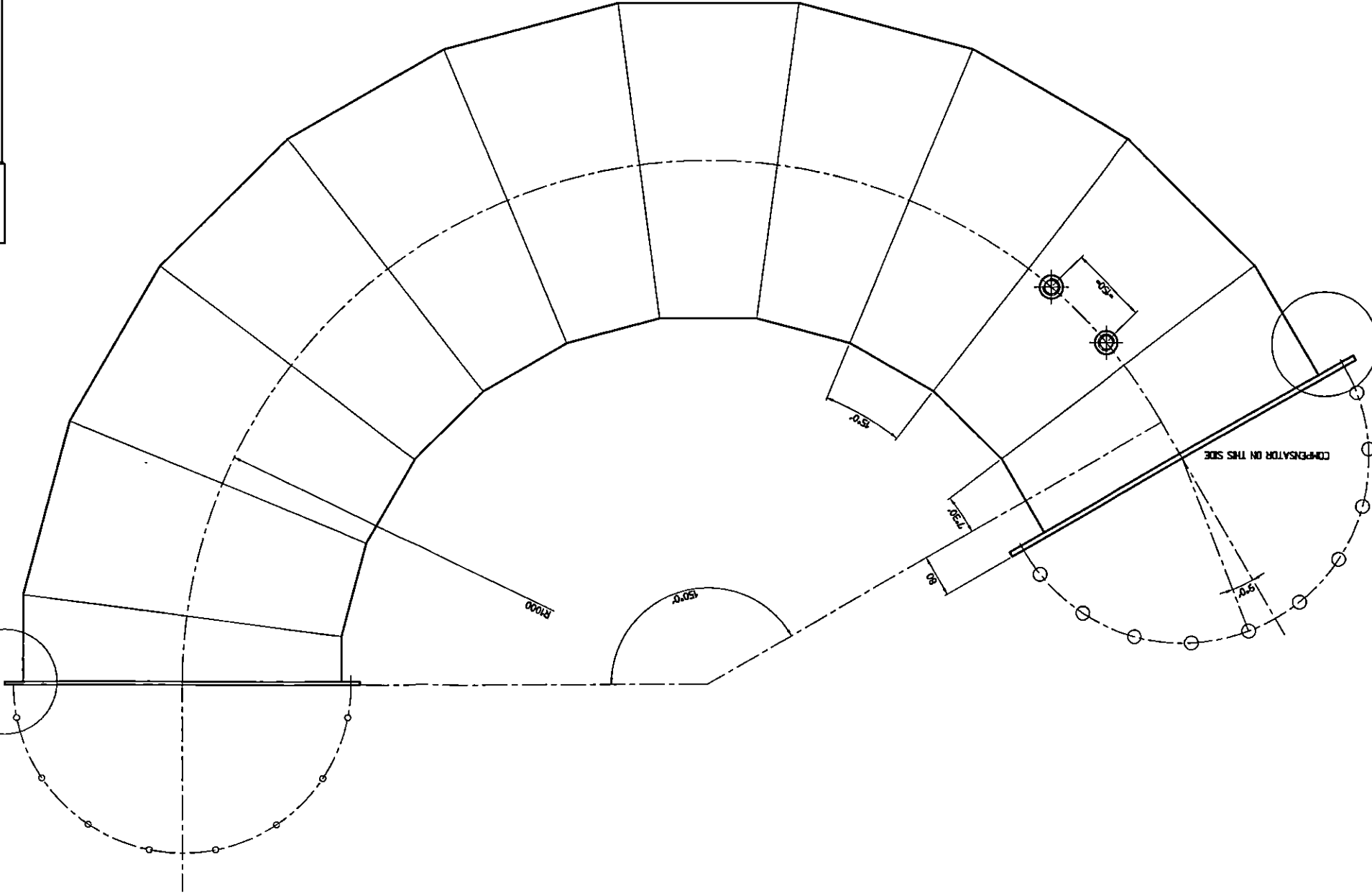






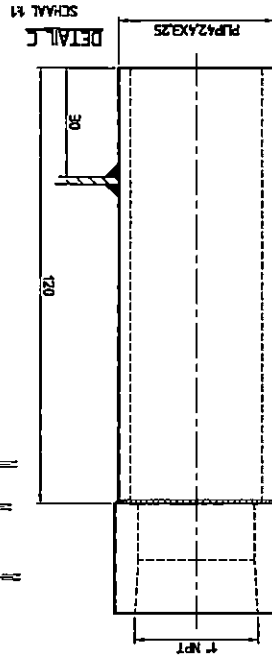


ZE DETAIL C

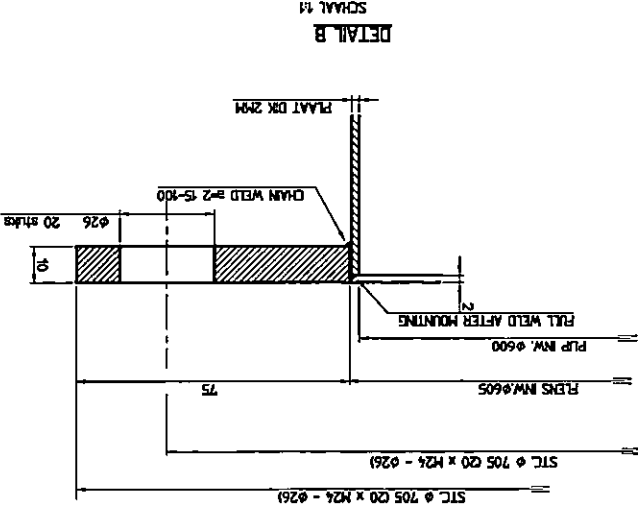


ZE DETAIL B

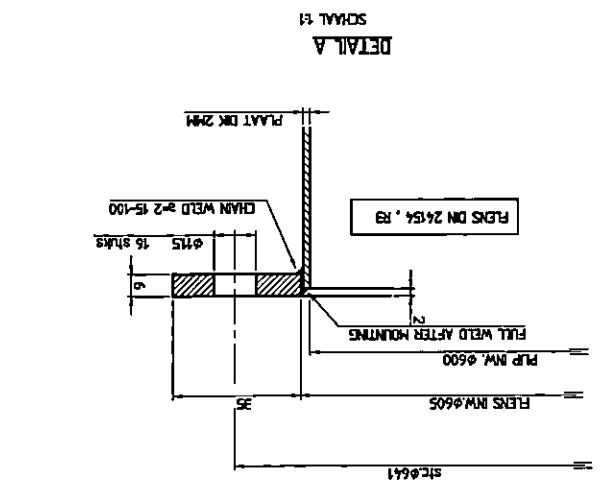
COMPENSATOR ON THIS SIDE



DETAIL C  
SCALA 1:1



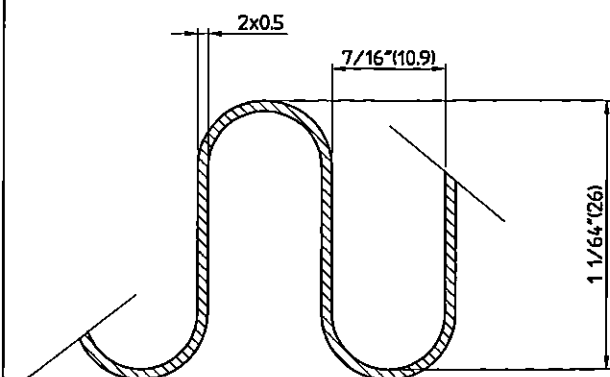
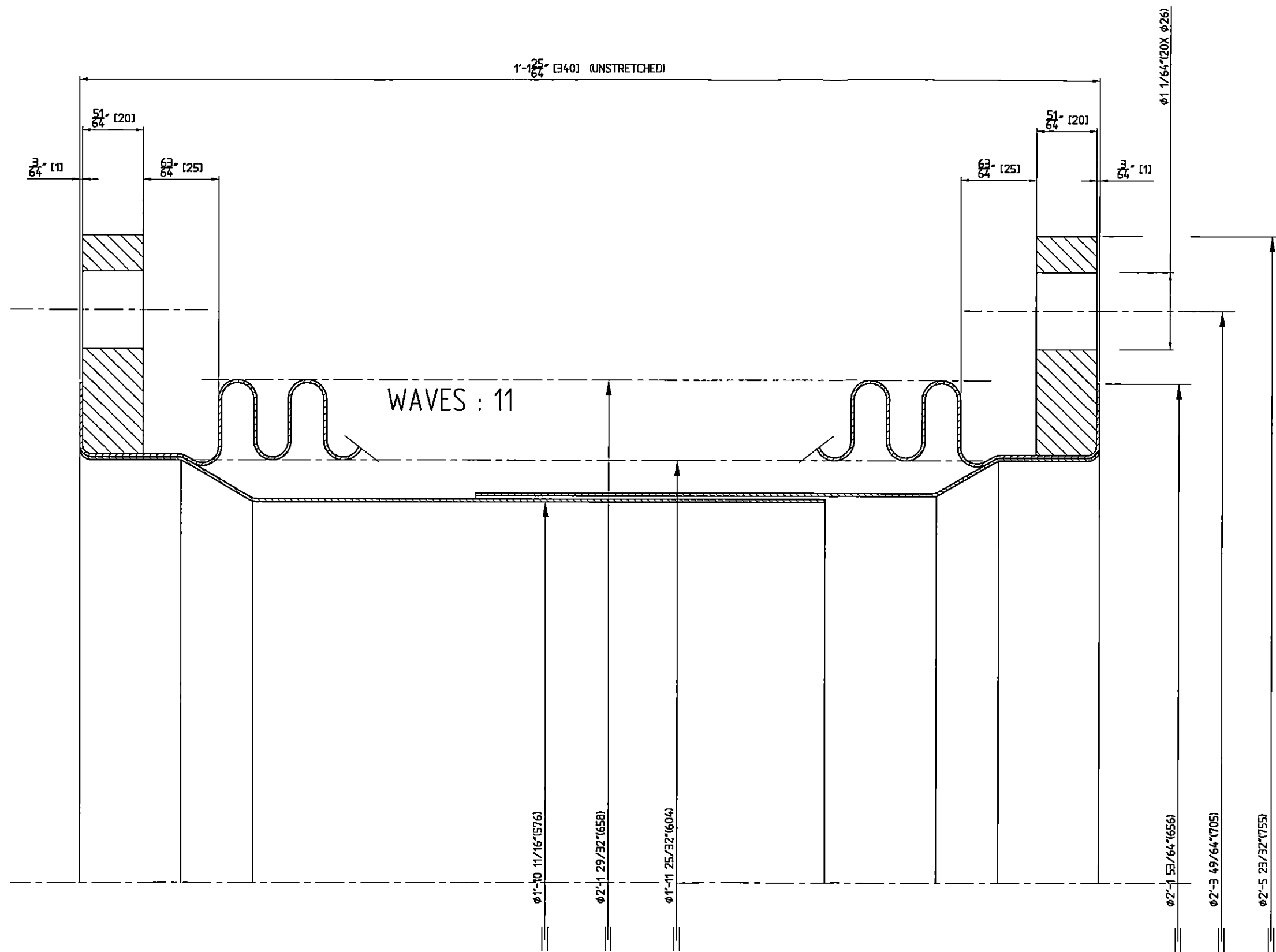
DETAIL B  
SCALA 1:1



DETAIL A  
SCALA 1:1

Lossa: 11222	RGW	22-01-02	A
Wijziging			
FACTORY : COFFEE - SUFFOLK - USA			
PROCESS : SPRAYDRYER			
PART : BEND AFTER HEATER			
SCALE : 1:5			
GROUP: 103			
Save: Tm/Tr			
CAD-file: T161378			

OPERERING:  
MATERIAAL AISI 304  
LASSEN LOS MEETVEREN  
LASSEN BISTEN EN PASSIVEREN  
GEWICHT: 75 KG  
PAQUETS GESCHIKT VOOR 300°C GEDR DOOR FIB TE BEPALEN  
1 x UITVOEREN



DETAIL WAVE

FLOW DIRECTION

NOTE:

BELLOWS MATERIAL AISI 321  
FLANGE MATERIAL : C-STEEL  
WEIGHT 58 KG  
QUANTITY: 1X

MANUFACTURE	BOA
TYPE	EXF-L DN600 PN2,5
CYCLE-INDEX (FULL LOAD)	1000 / 20° 1500 / 120°
FLANGE DRILLED	PN6
AXIAL EXTENSION	±65 mm
LATERAL MOVING	±4 mm
NON-STRESS LENGTH	340 mm
SPRING CONSTANT AXIAL	130 N/mm

FACTORY : COFFEE - SUFFOLK - USA  
PROCESS : SPRAYDRYER  
PART : AXIAL COMPENSATOR DN600/PN2,5

SCALE : 1:5  
AUT.: R. Wink

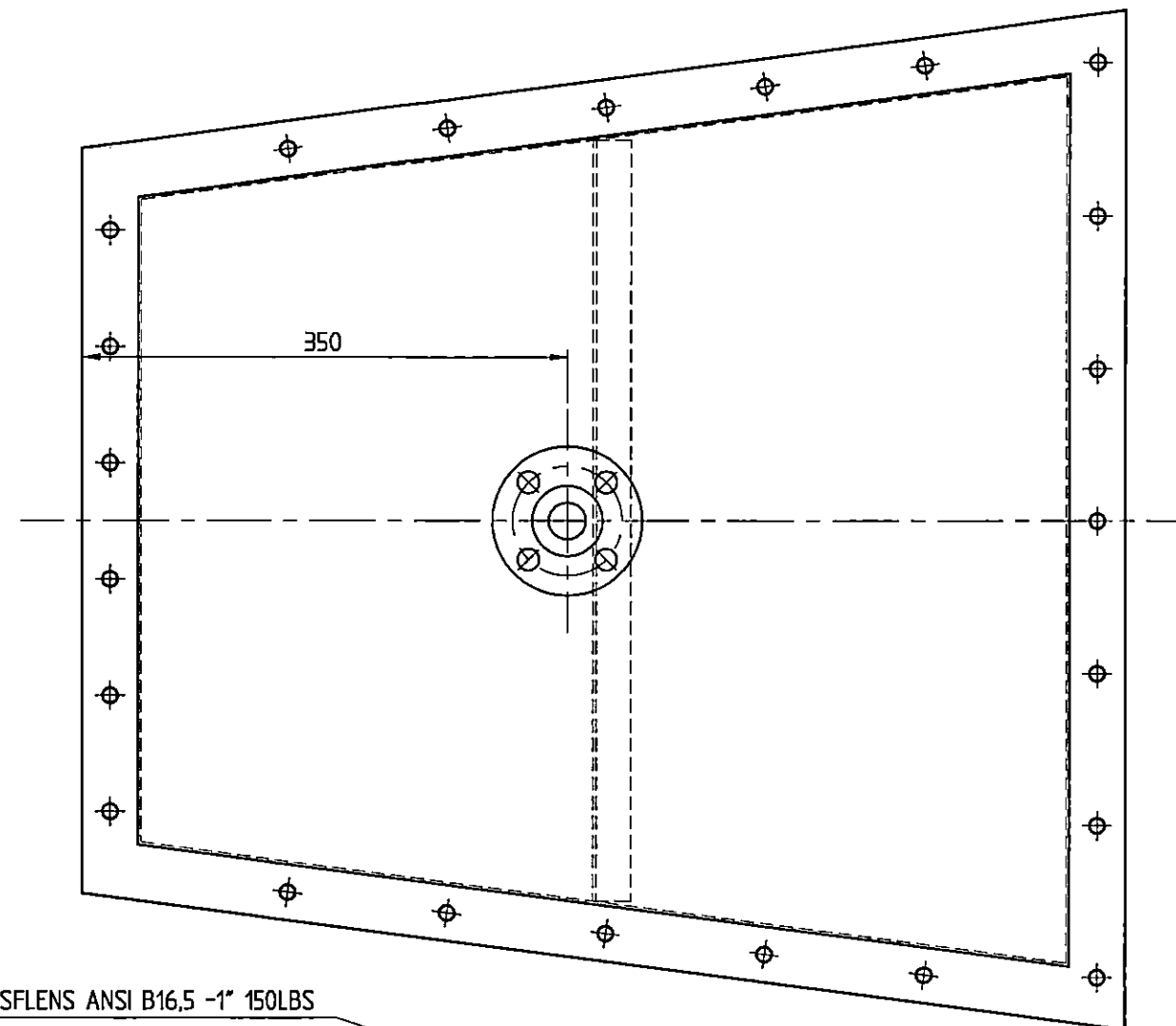
GROUP: 103  
Date: Oct-10-01



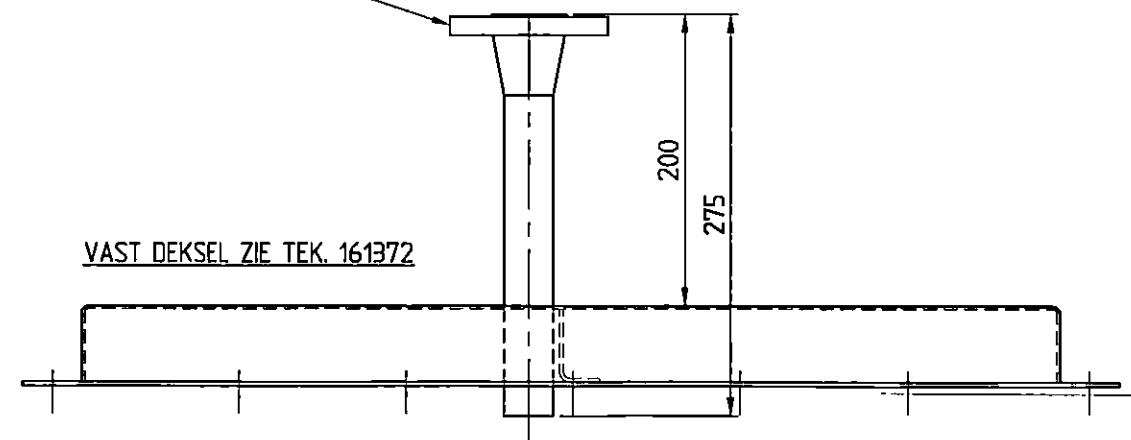
Sara Lee/DE  
Operations C&T division  
Manufacturing Technology

SIZE  
CAD-file: T161379  
CODE: FUS.02.00.T1

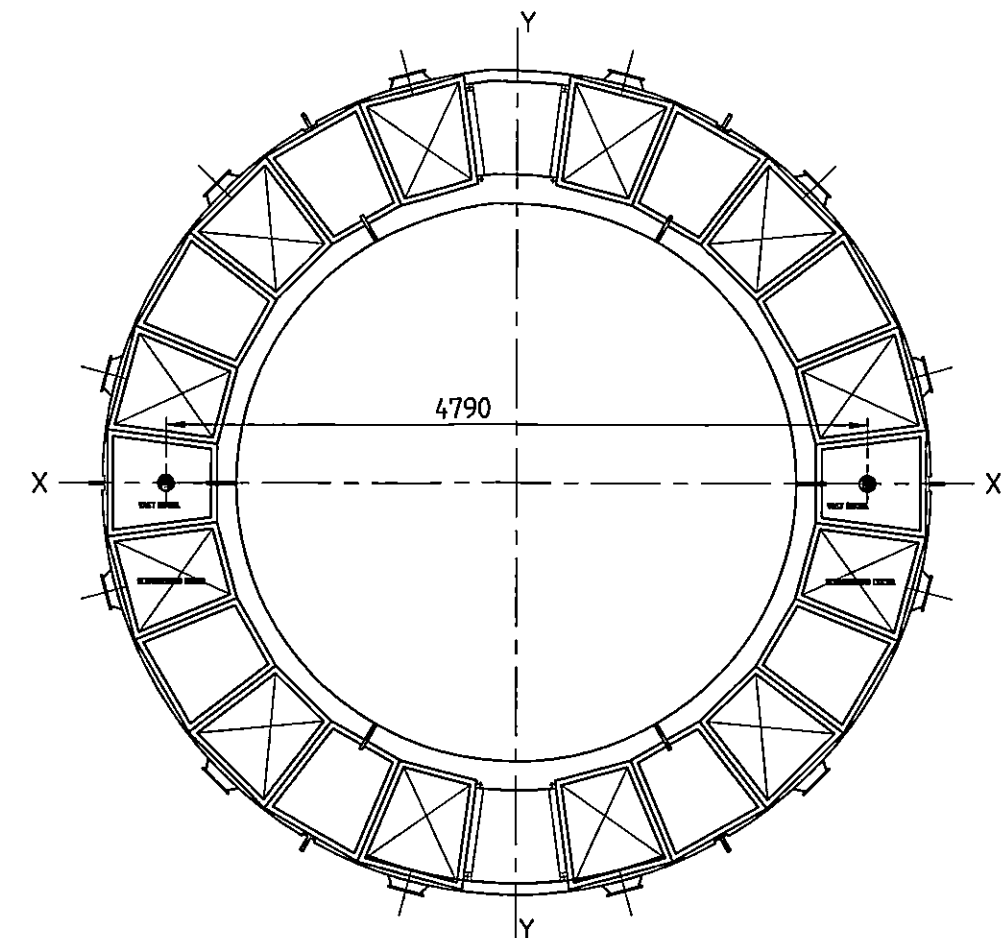




VOORLASFLENS ANSI B16.5 -1" 150LBS



VAST DEKSEL ZIE TEK. 161372



OVERZICHT PLAATS STOOMAANSLUITING

SCHAAL 1:10

OPMERKING:

MATERIAAL AISI 304

LASSEN BEITSEN EN PASSIVEREN

BEHOORT BIJ TEK. T161371, T161372 EN T161373

AANTAL 2 STUKS

FACTORY : COFFEE - SUFFOLK - USA  
PROCESS : SPRAYDRYER  
PART : STEAM CONNECTION AT COVER

SCALE : 1:5

GROUP: 103

AUT.: R. Wink

Date: Oct-10-01

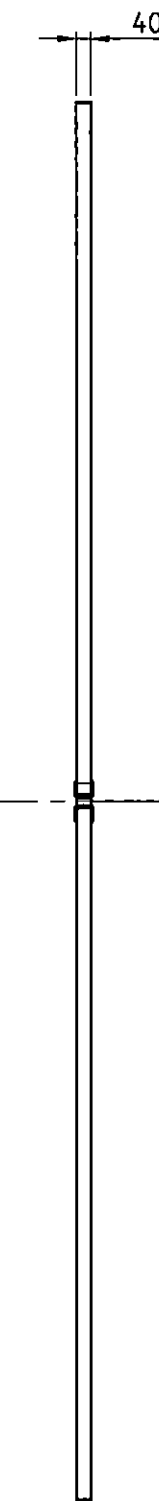


Sara Lee/DE  
Operations C&T division  
Manufacturing Technology



SIZE  
A Z

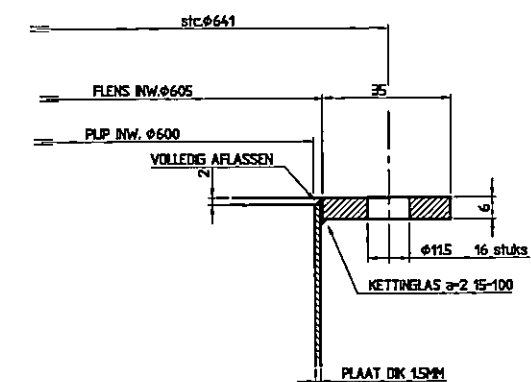
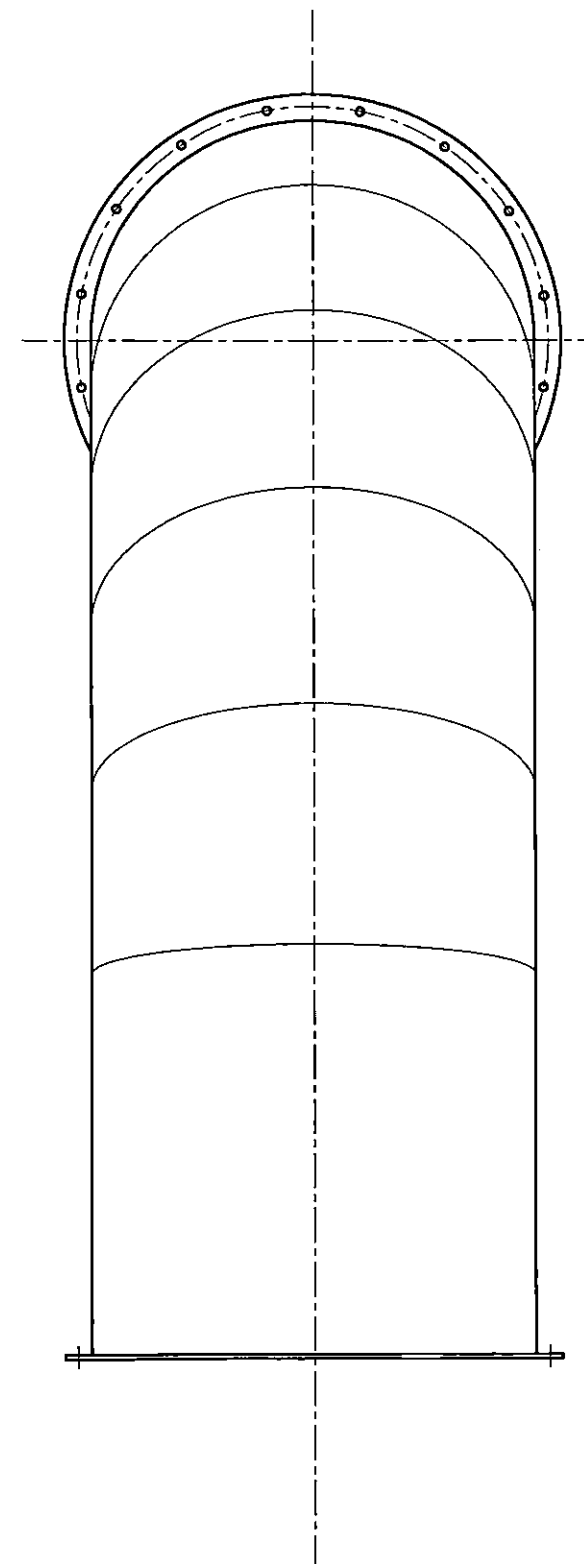
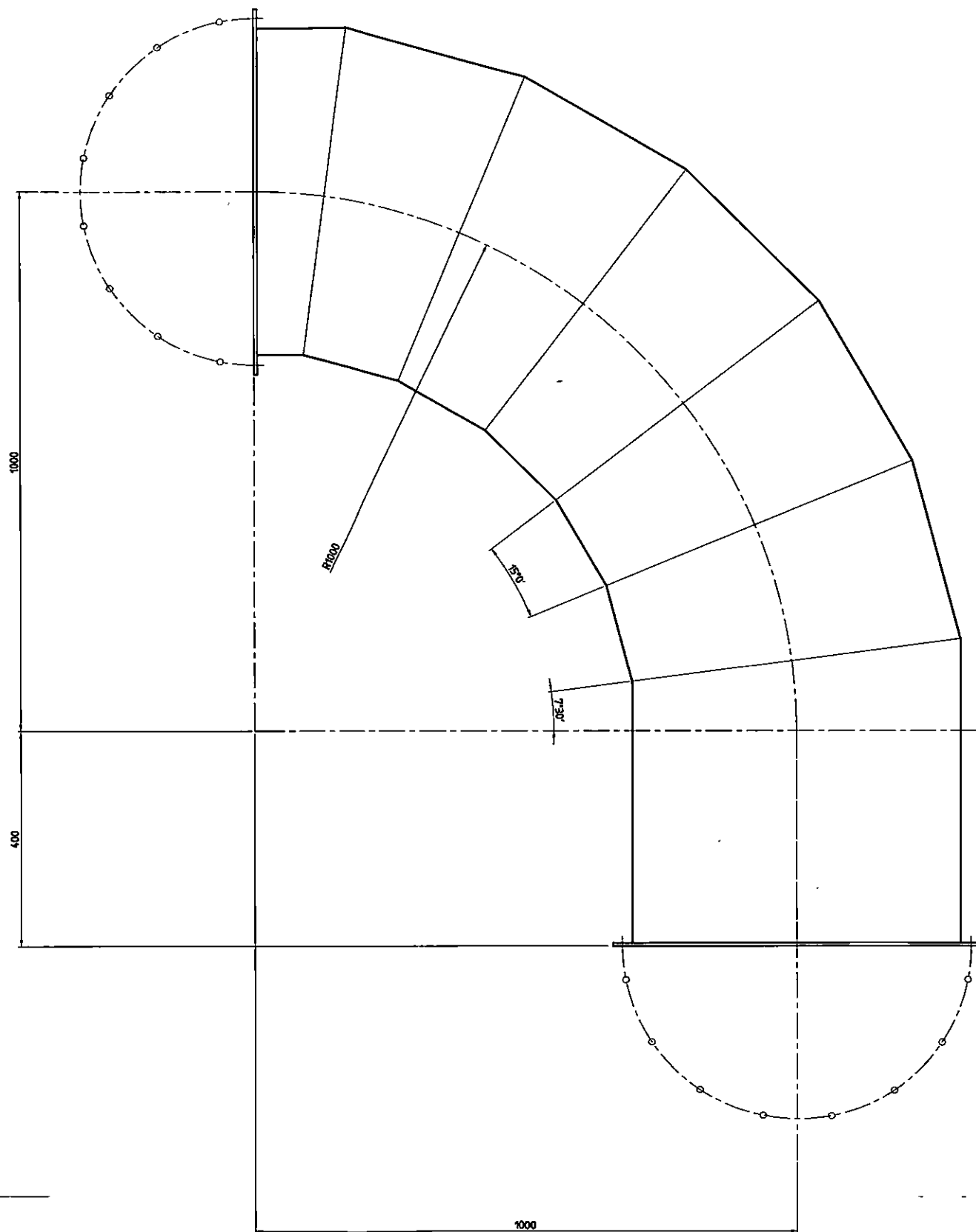
CAD-file: T161380

CODE: FUS.02.00.T1

[illegible]

MATERIAAL AISI 304  
LASSEN BEITSEN EN PASSIVEREN  
BEHOORT BIJ TEK. T161371  
2 X UITVOEREN  
GEWICHT: 25 KG

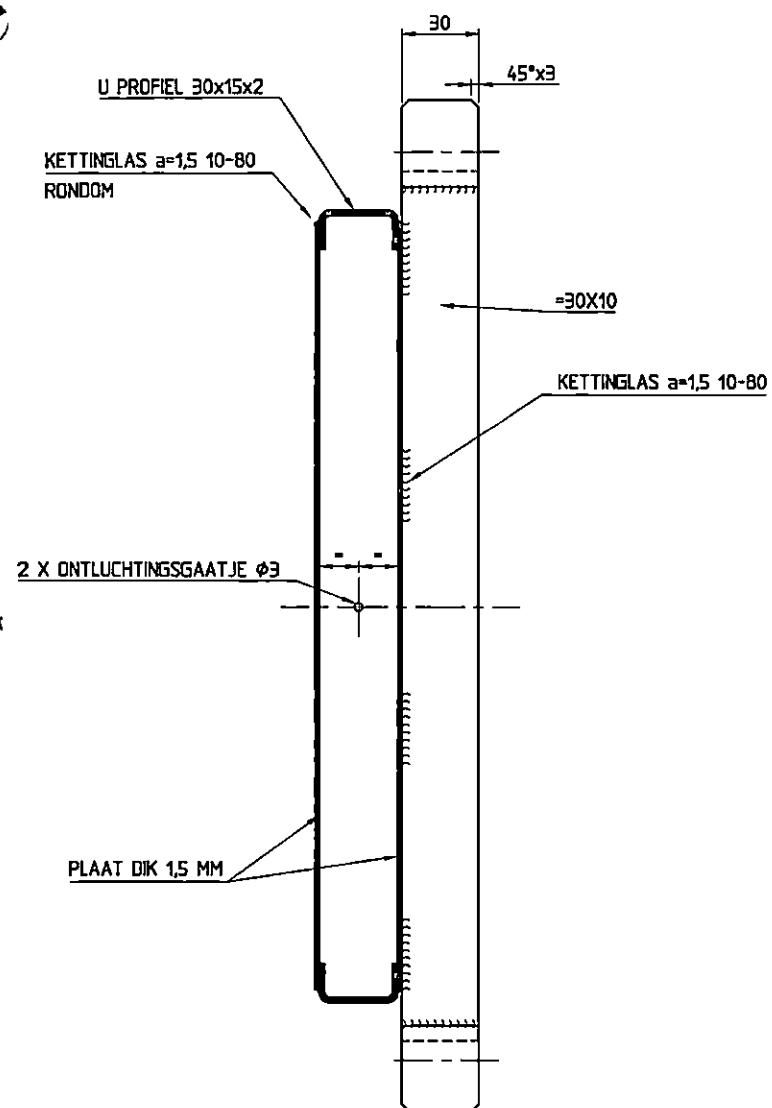
FACTORY : COFFEE — SUFFOLK — USA				
PROCESS : SPRAYDRYER				
PART : HOSE CLAMP FOR EXPANSIONJOINT OF BODY				
SCALE : 1:20	GROUP: 103	 <b>Sara Lee/DE</b> <b>Operations C&amp;T division</b> <b>Manufacturing Technology</b>	SIZE	CAD—file: T161381
AUT.: R. Wink	Date: Sep-18-01			CODE: FUS.02.00.T1



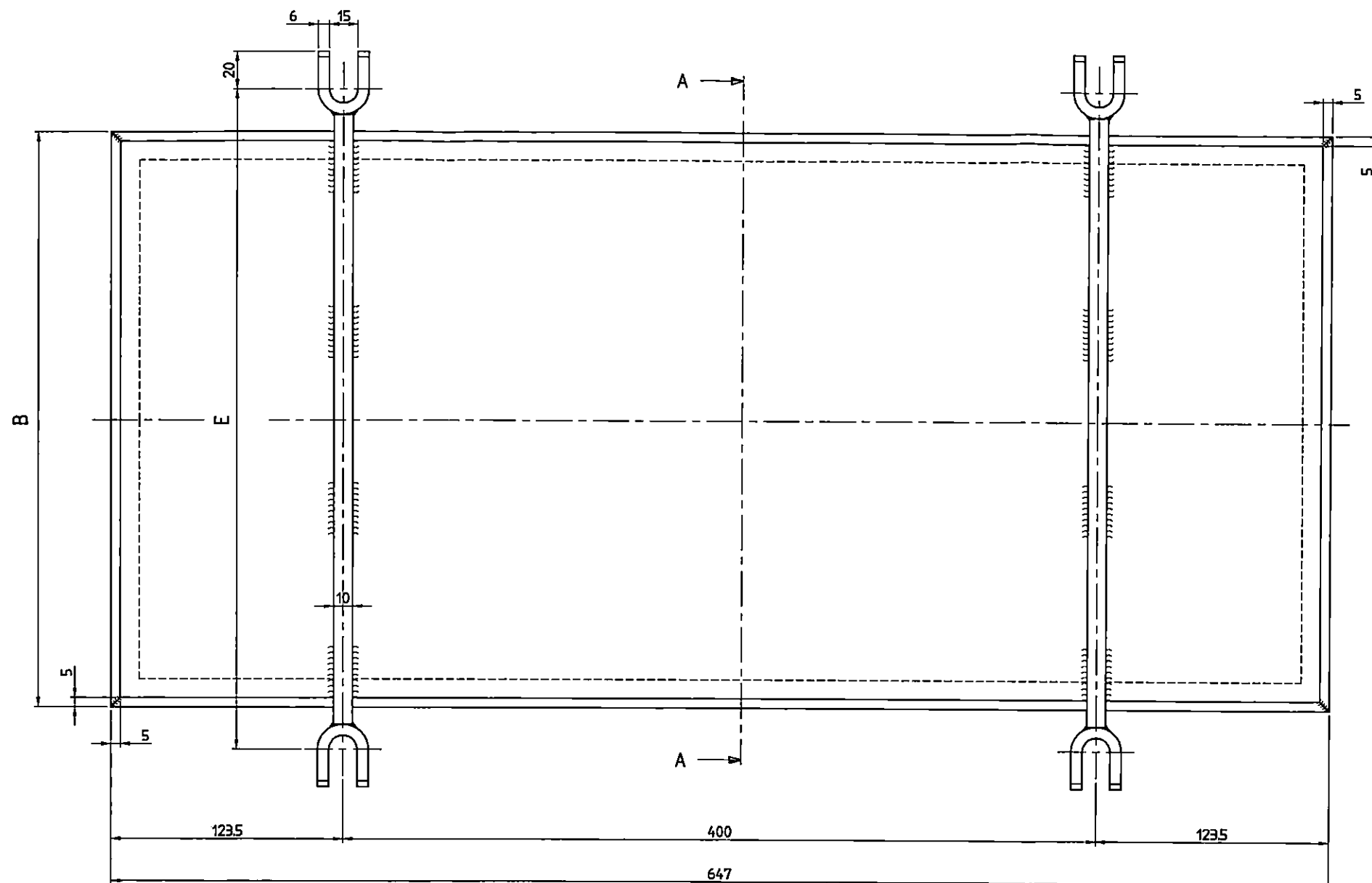
DETAIL FLENS  
SCHAAL 1:1

FLENZEN DIN24154, R3

OPMERKING: MATERIAAL AISI 304  
LASSEN BEITSSEN EN PASSIVEREN  
GEWICHT: 38 KG  
PAKKING GESCHIKT VOOR 300°C (FDA) DOOR FIB TE BEPALEN  
1 X UITVOEREN



DOORSNEDE A-A



UITVOEREN		
AANT.	MAAT B.	MAAT E.
8	447	492
4	377	422
4	307	352
4	207	252
2	167	212

**OPMERKING:** MATERIAAL AISI 304  
 PLAATMATERIAAL AISI 304 FINISH 2B  
 LASSEN GLAD AFWERKEN  
 LASSEN BEITSSEN EN PASSIVEREN  
 GEWICHT: 168 KG

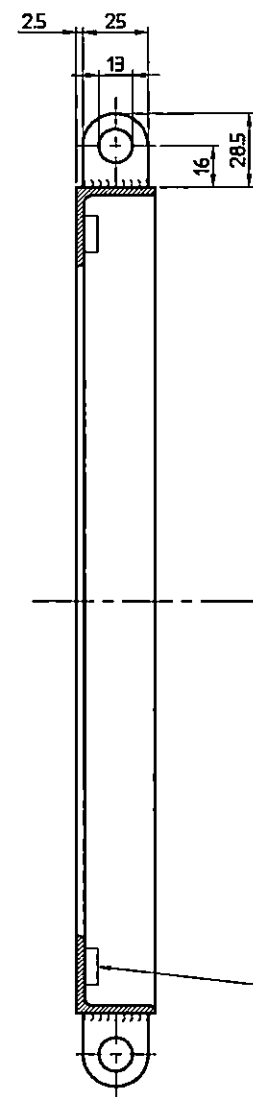
FACTORY : COFFEE - SUFFOLK - USA  
 PROCESS : SPRAYDRYER  
 PART : COVER AT RING PIPE  
 SCALE : 1:2 GROUP: 103  
 AUT.: R. Wink Date: Jan-09-01  
 CHK.: RW Date:  
 MOD.: Date:



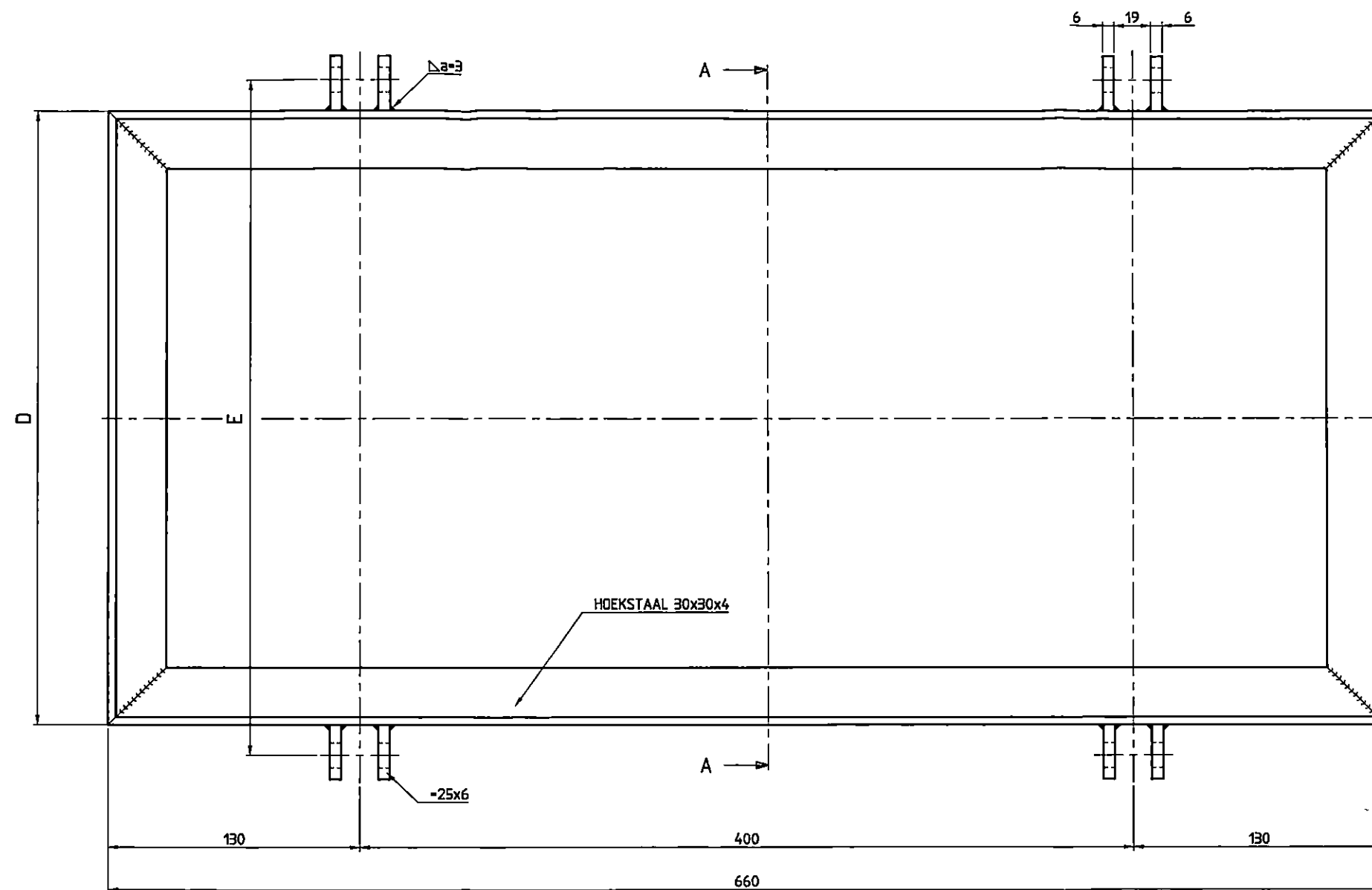
Sara Lee/DE  
 Operations C&T division  
 Manufacturing Technology  
 All rights reserved. Reproduction  
 or disclosure of (any part of) this  
 document only permitted with our  
 written permission.

SIZE  
 A2

CAD-file: T161389  
 CODE: FUS.02.00.T1  
 PAGE: 1 OF: 1  
 DRAWING No.: 161389




DOORSNEDE A-A

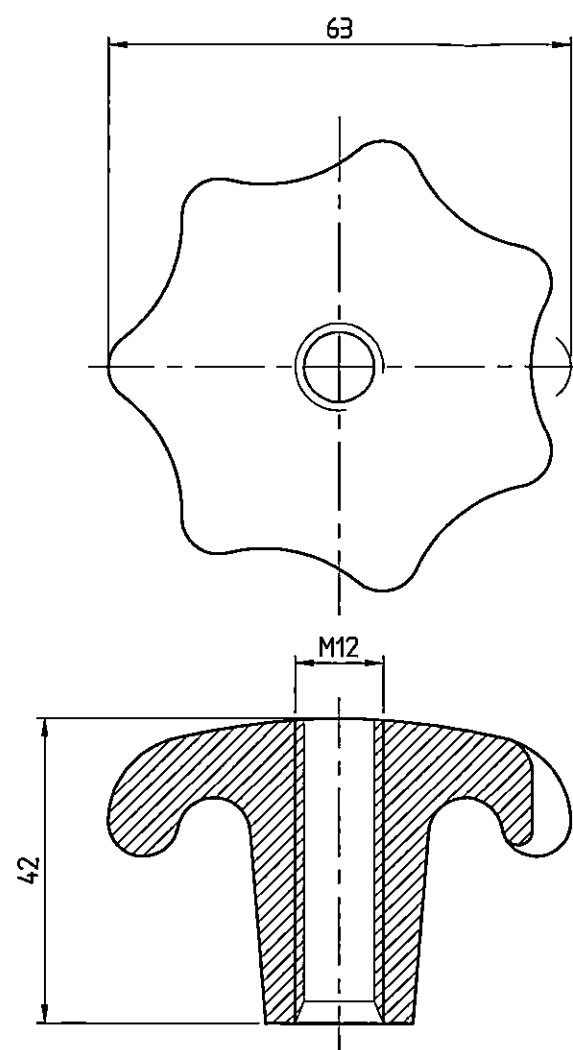
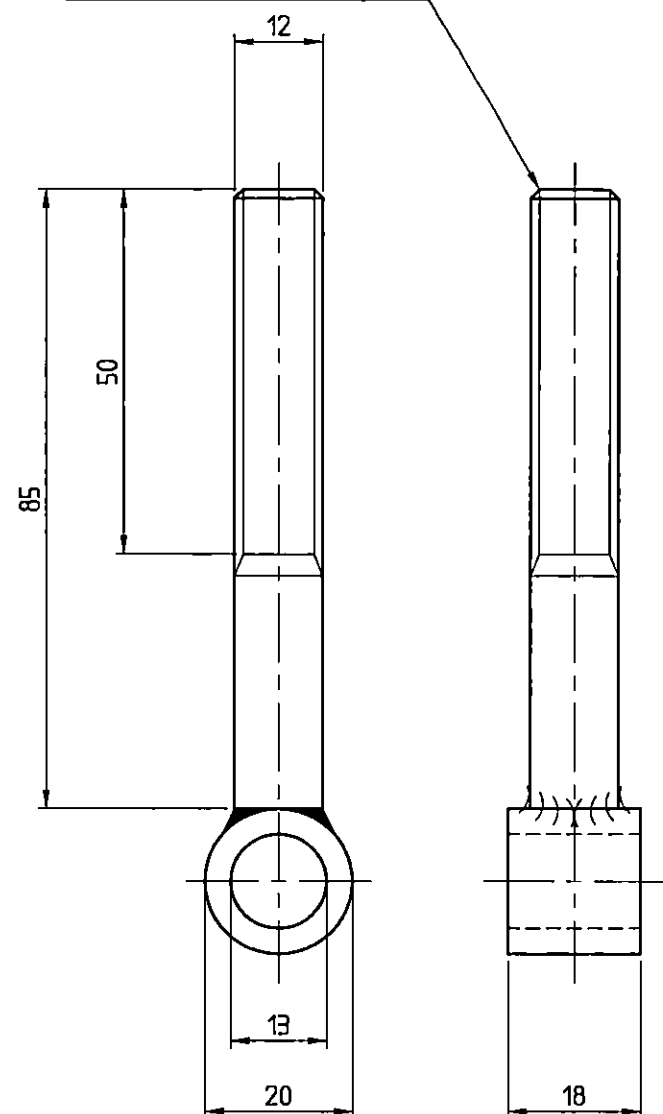


UITVOEREN		
AANT.	MAAT D.	MAAT E.
8	460	492
4	390	422
4	320	352
4	220	252
2	180	212

**OPMERKING:** MATERIAAL AISI 304  
 LASSEN GLAD AFWERKEN  
 LASSEN BEITSEN EN PASSIVEREN  
 VOOR SAMENSTELLING ZIE TEK. T161388  
 GEWICHT: 100 KG

FACTORY :	COFFEE - SUFFOLK - USA	 <b>Sara Lee/DE</b> Operations C&T division Manufacturing Technology	SIZE	CAD-file: T161390
PROCESS :	SPRAYDRYER			
PART :	COVERFRAME AT RING PIPE			
SCALE : 1:2	GROUP: 103			
AUT.: R. Wink	Date: Jan-10-01			
			A C	CODE: FUS.02.00.T1

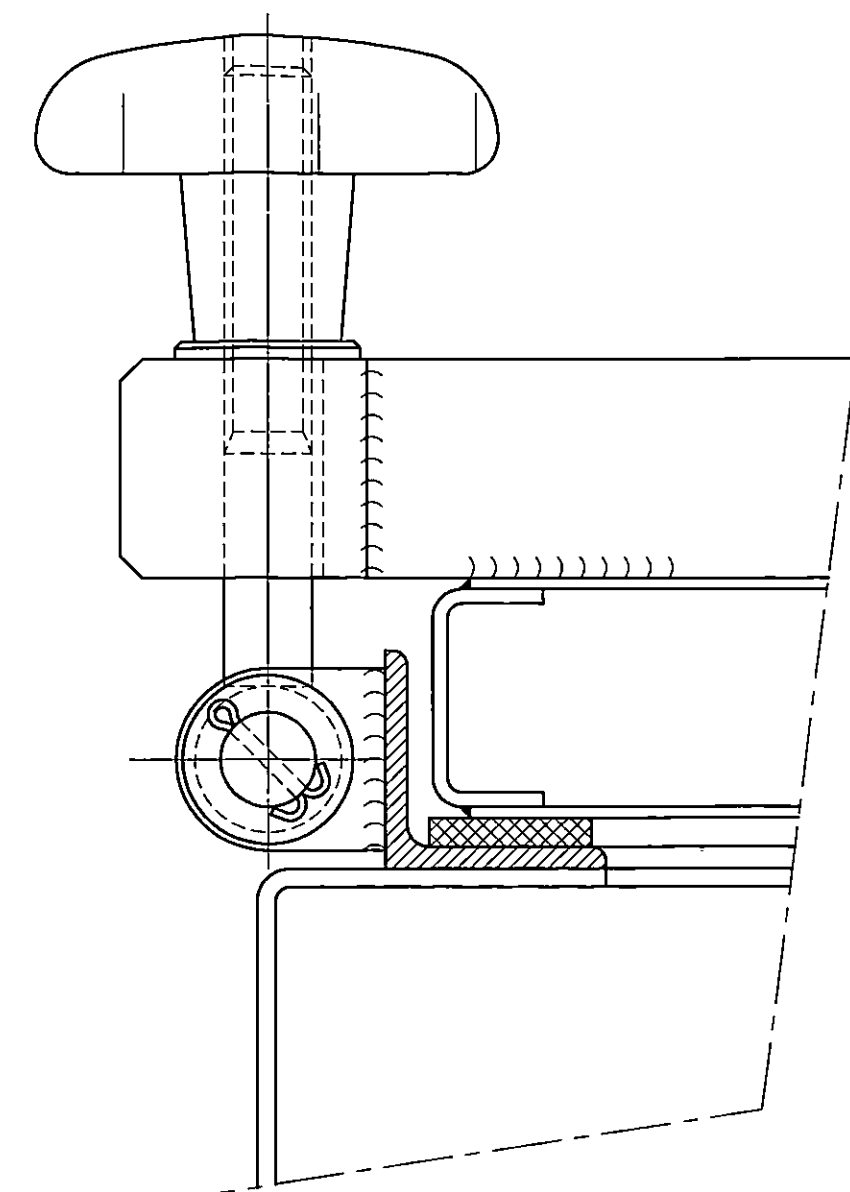
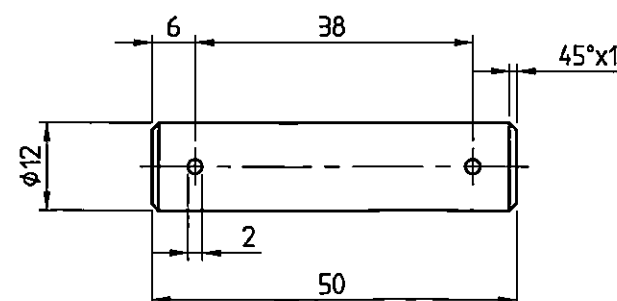
ZESK. BOUT M12x90 DIN931 A2  
KOP AFZAGEN  
DRAADLENGTE VERLENGEN



STERKNOP M12 UITVOERING A  
DIN 6336 GY (GRAUGUS)  
FA. LESCHHORN AG FRANKFORT A.M.

LEV. HOLLINK B.V. HENGLO  
ART.NR 04302

BOREN EN VOLLEDIG DRAAD TAPPEN



**OPMERKING:** MATERIAAL AISI 304 (TENZIJ ANDERS VERMELD)  
LASSEN BEITSEN EN PASSIVEREN  
MONTAGE MATERIAAL AISI A2  
AANTAL: 88 STUKS  
GEWICHT: 18 KG

FACTORY : COFFEE - SUFFOLK - USA  
PROCESS : SPRAYDRYER  
PART : CLAMP BOLT FOR COVER

SCALE : 1:1  
AUT.: R. Wink  
GROUP: 103  
Date: Mar-15-01

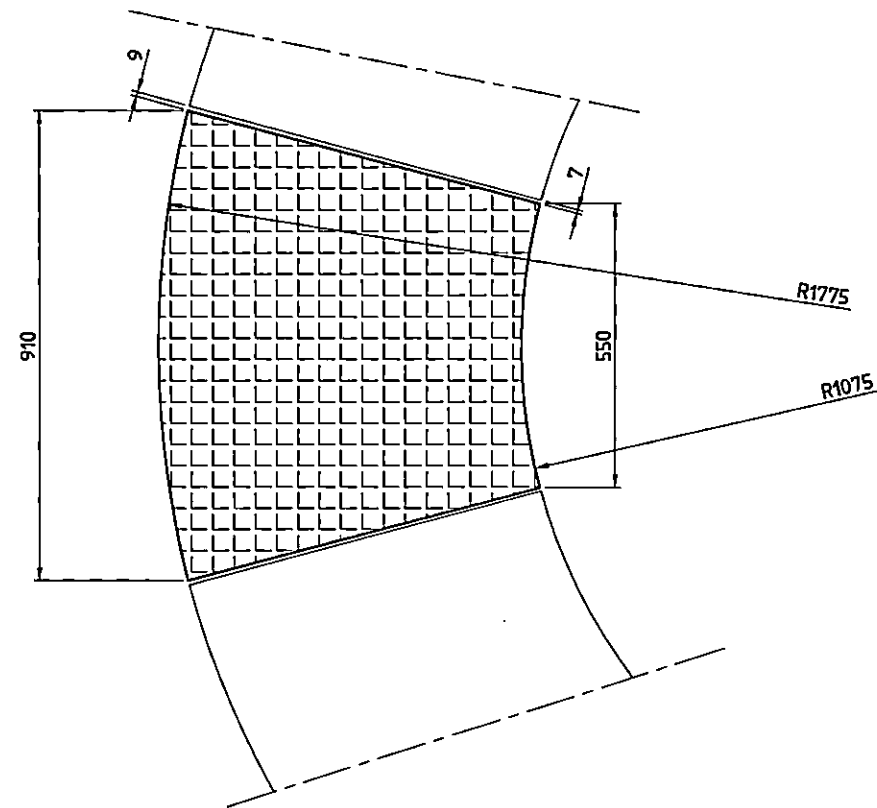


Sara Lee/DE  
Operations C&T division  
Manufacturing Technology

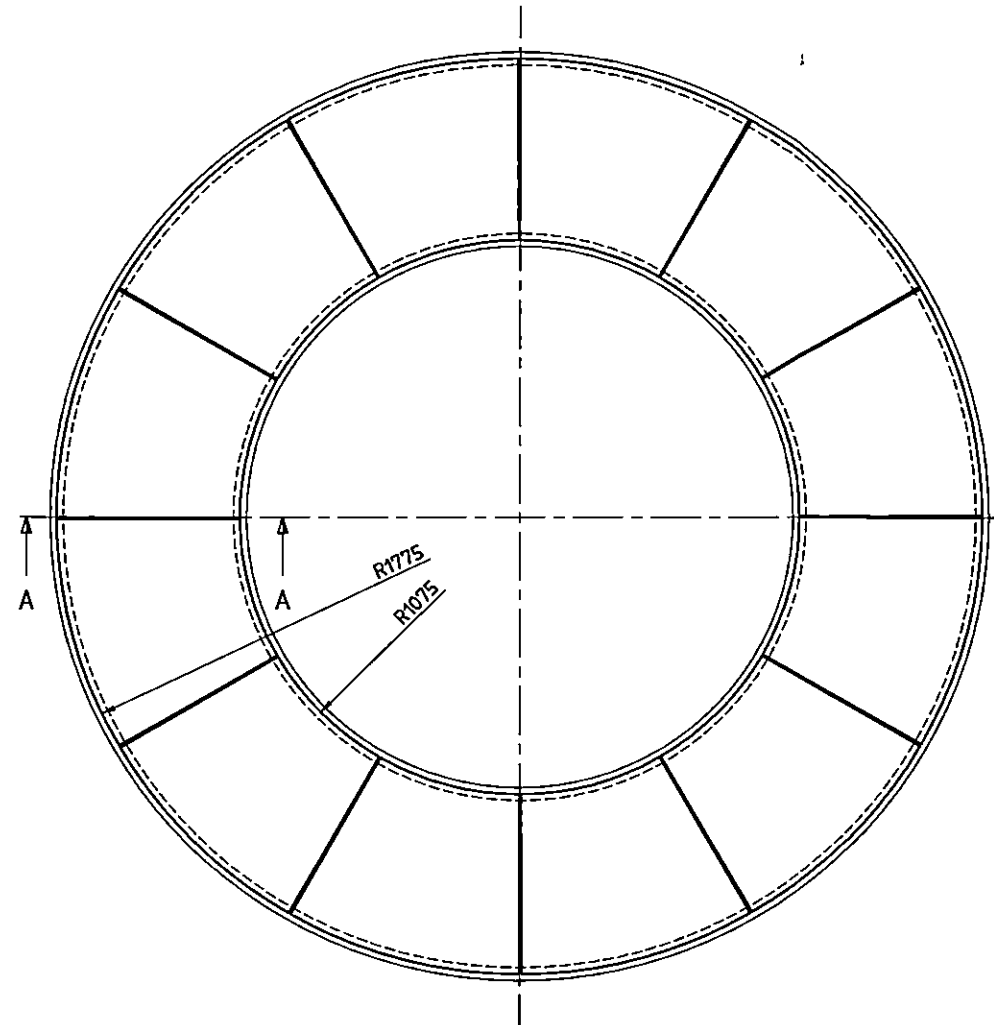
SIZE  
A Z

CAD-file: T161391  
CODE: FUS.02.00.T1

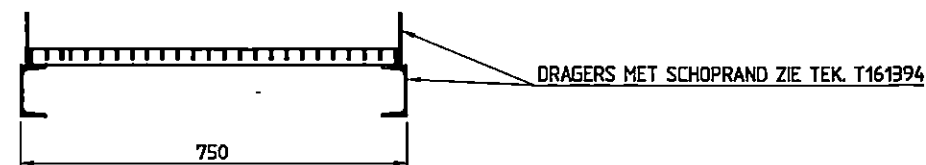
PAGE: 1 OF 1



12 STUKS  
SCHAAL 1:10




POSITIE 12 STUKS ROOSTERS  
ELK ROOSTER VOORZIEN VAN 4 STUKS BEVESTIGINGSKLEMSET



DOORSNEDEN A-A  
SCHAAL 1:10

DRAGERS MET SCHOPRAND ZIE TEK. T161394

**OPMERKING:** FABRIKAAT: DEJO WOLVEGA  
MATERIAAL: ST. VERZINKT  
DRAAGSTAVEN 30x2  
CONSTRUCTIE PLATFORM ZIE TEK. T161394

FACTORY :	COFFEE - SUFFOLK - USA			
PROCESS :	SPRAYDRYER			
PART :	SECTION OF GRATE FOR PLATFORM +7200			
SCALE : 1:20	GROUP: 103		SIZE	CAD-file: T161395
AUT.: R. Wink	Date: Jan-17-01			CODE: FUS.02.00.T1
		Sara Lee/DE Operations & C&T division Manufacturing Technology		



PROCESS : SPRAYDRYER

PART : MULTI CYCLONE REMOVAL

Aut. : R.B.W.

CAD-file: T161398

Code: FUS.00.02.T1

Page: 2 of : 2

Ass. draw. nr.:

Drawing nr: 161398

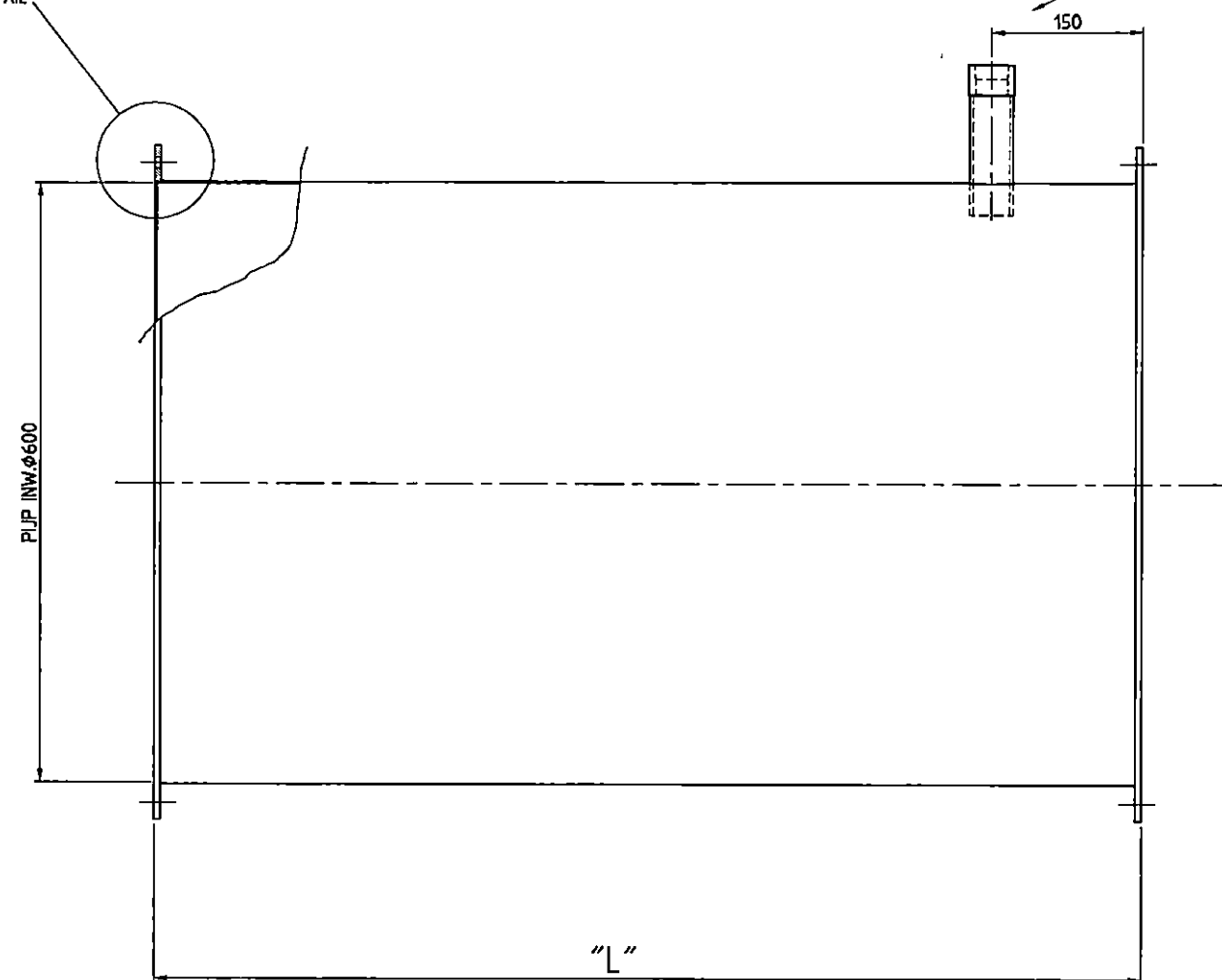
## PARTS LIST

[illegible]

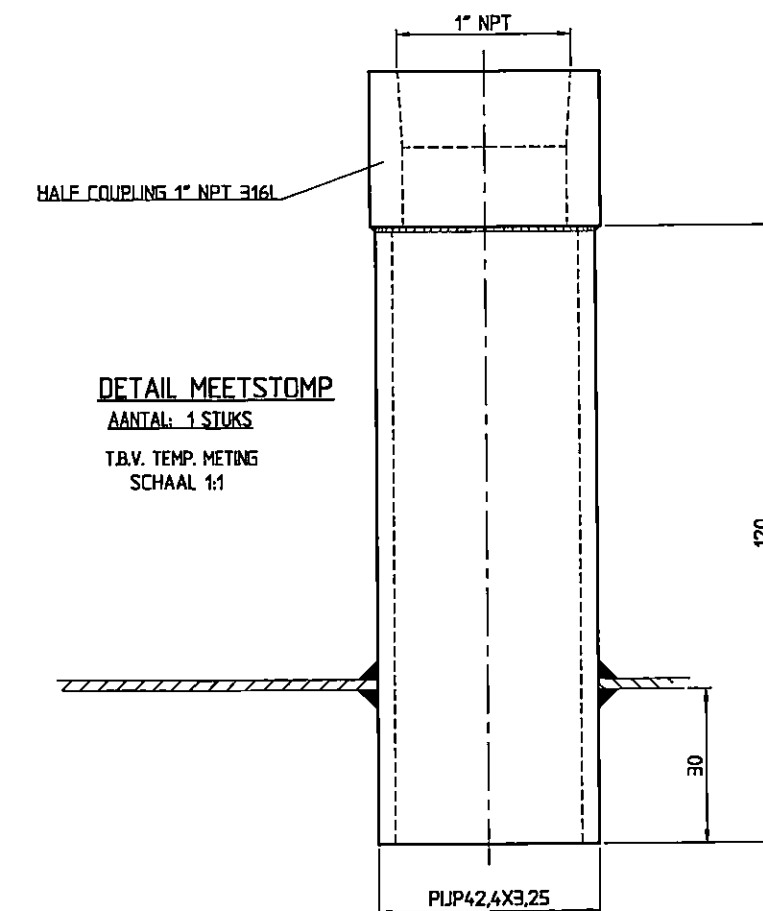
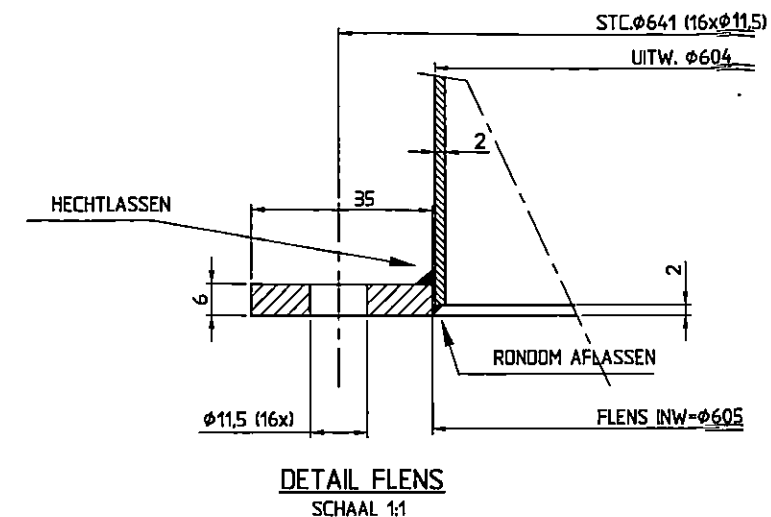




ZIE DETAIL



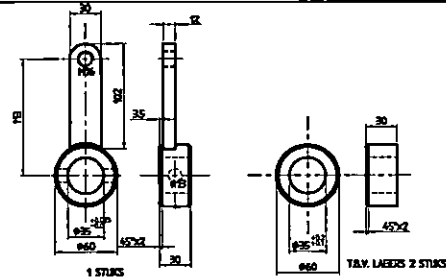
UITVOEREN ALLEEN BIJ 2 STUKS PASSTUKKEN  
EN AAN VASTE FLENSZIJDE



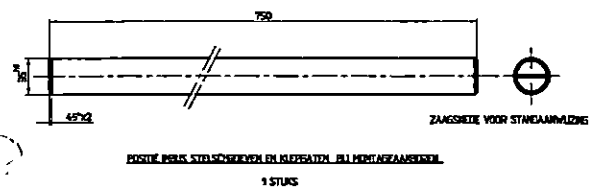
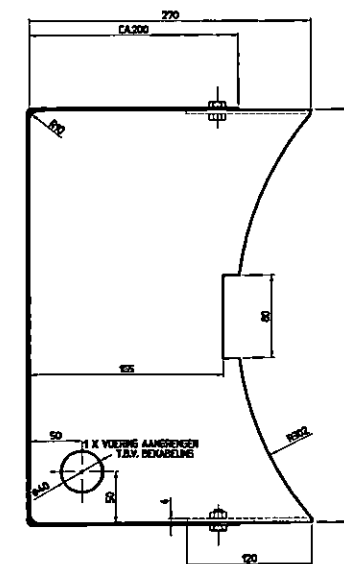
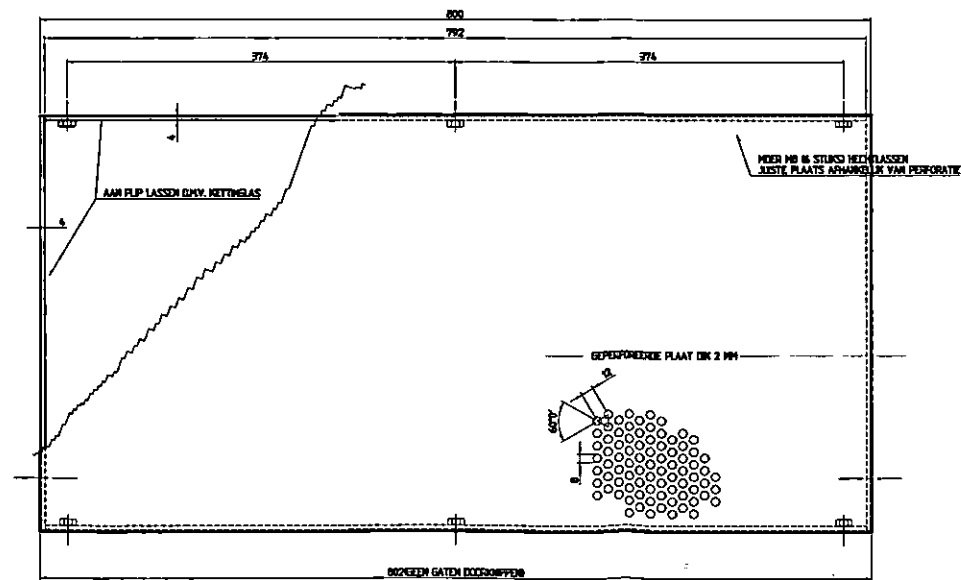
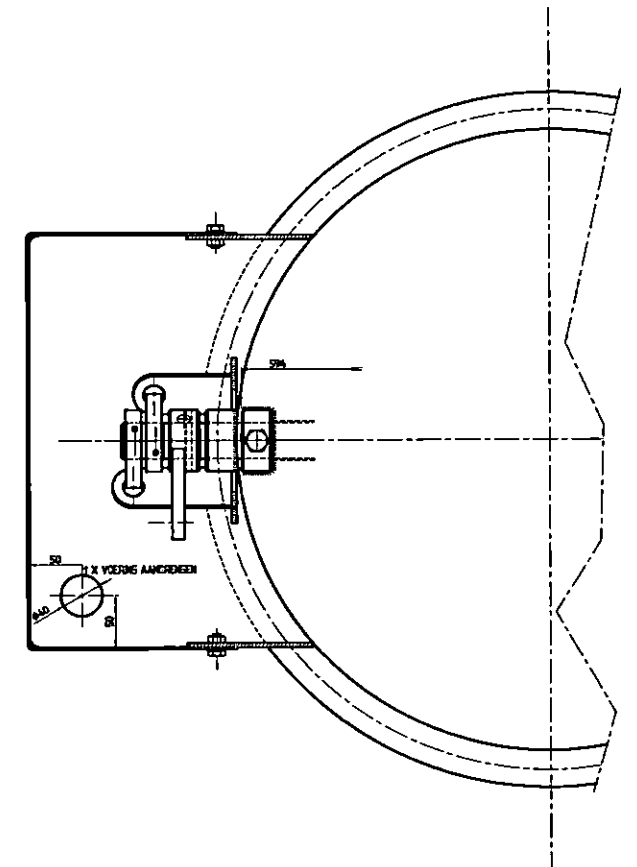
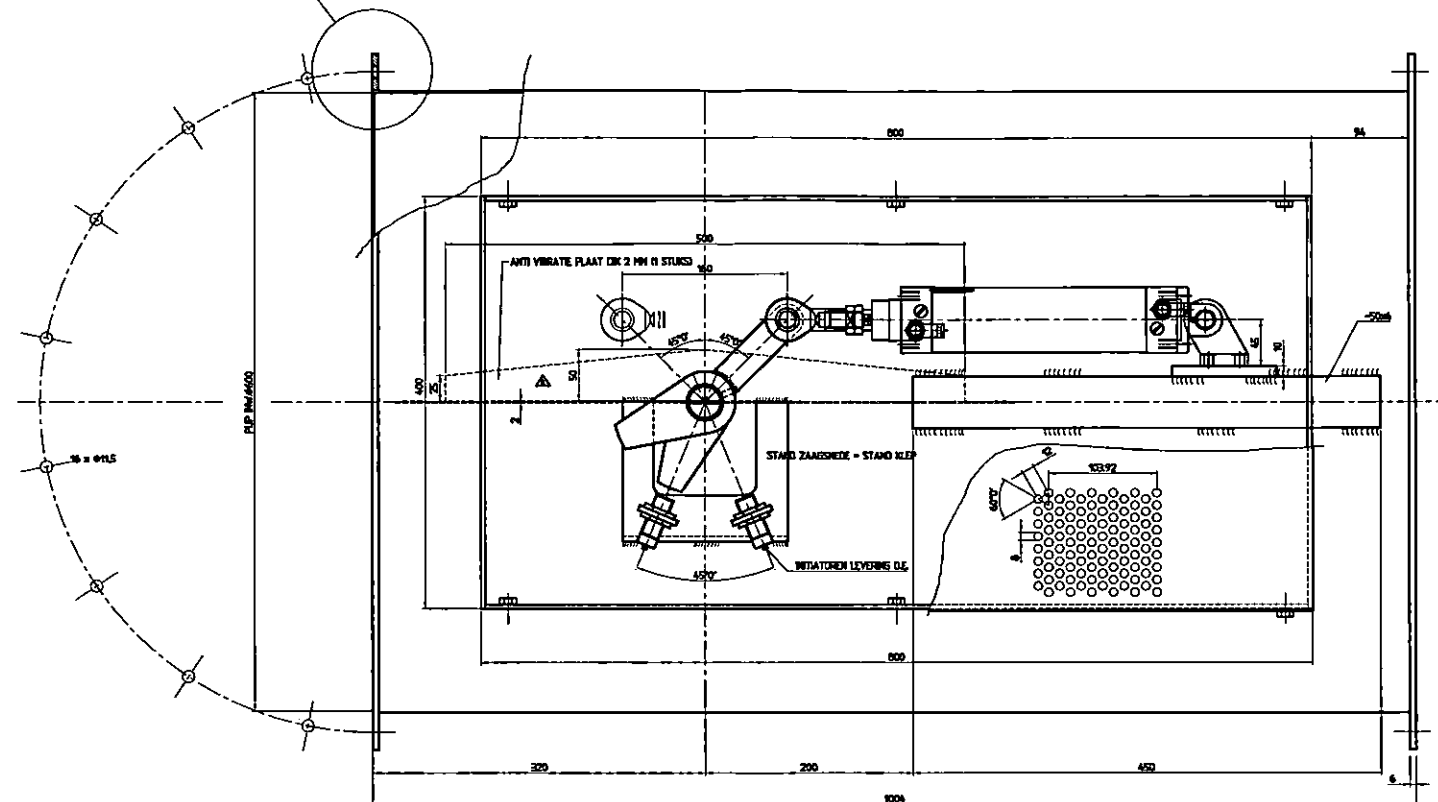
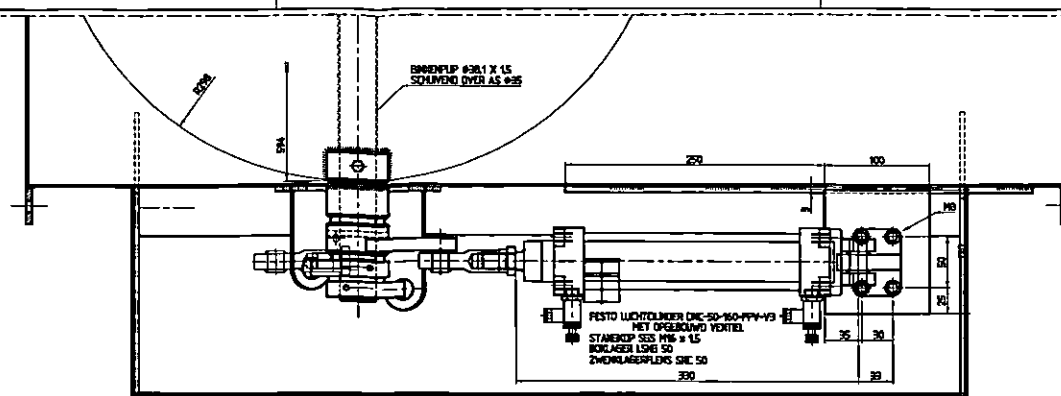
UITVOEREN AANTAL: 4 x L=2004 waarvan 3 stuks met 1.losse flens als passtuk

**OPMERKING:** MATERIAAL AISI 304  
LASSEN BEITSEN EN PASSIVEREN  
GEWICHT: 295 KG

FACTORY :	COFFEE — SUFFOLK — USA				
PROCESS :	SPRAYDRYER				
PART :	OUTLET AIR PIPE D=600				
SCALE : 1:5	GROUP: 103		Sara Lee/DE Operations C&I division Manufacturing Technology	SIZE	CAD—file: T161888
AUT.: R. Wink	Date: Mar-19-01			A 2	CODE: FUS.02.R0.T1

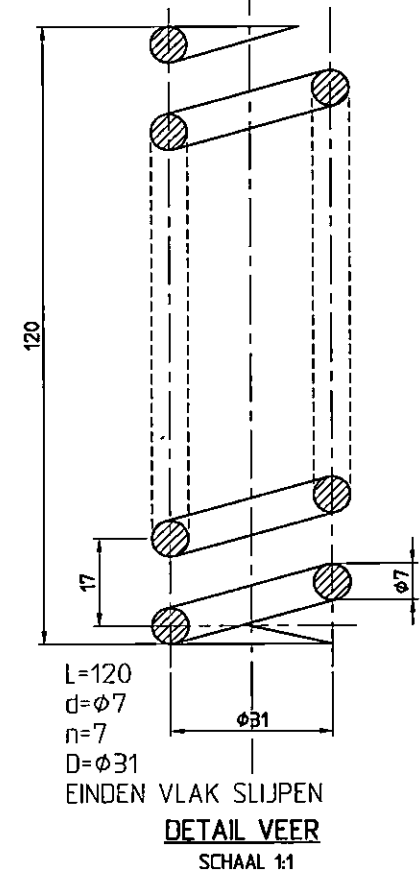
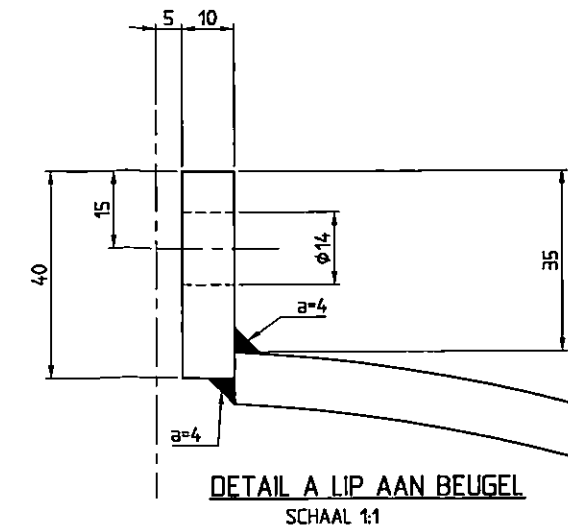
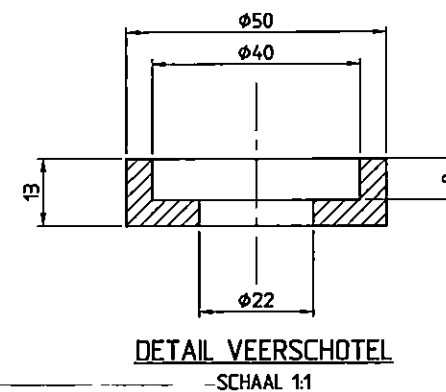
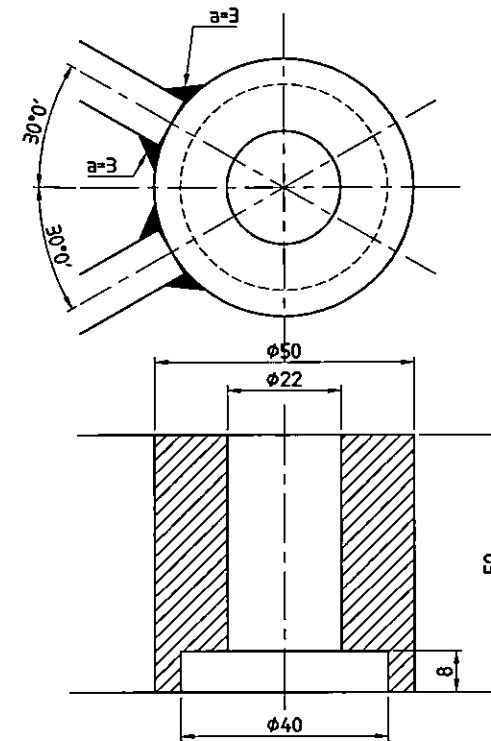
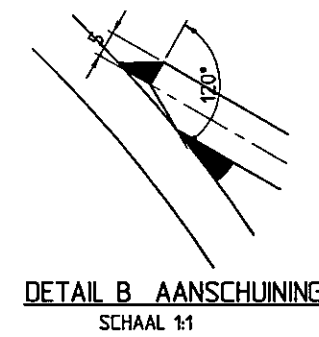
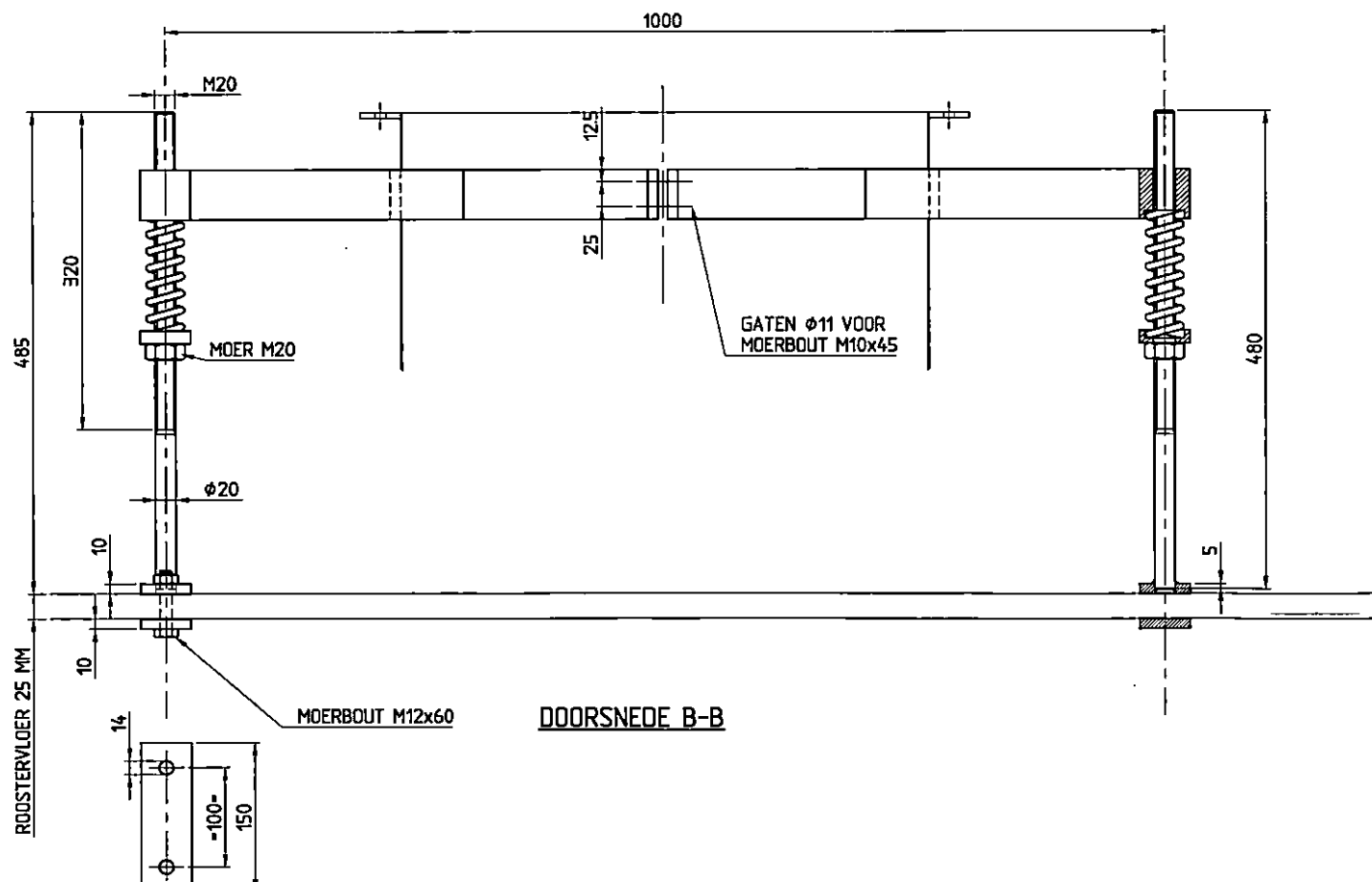
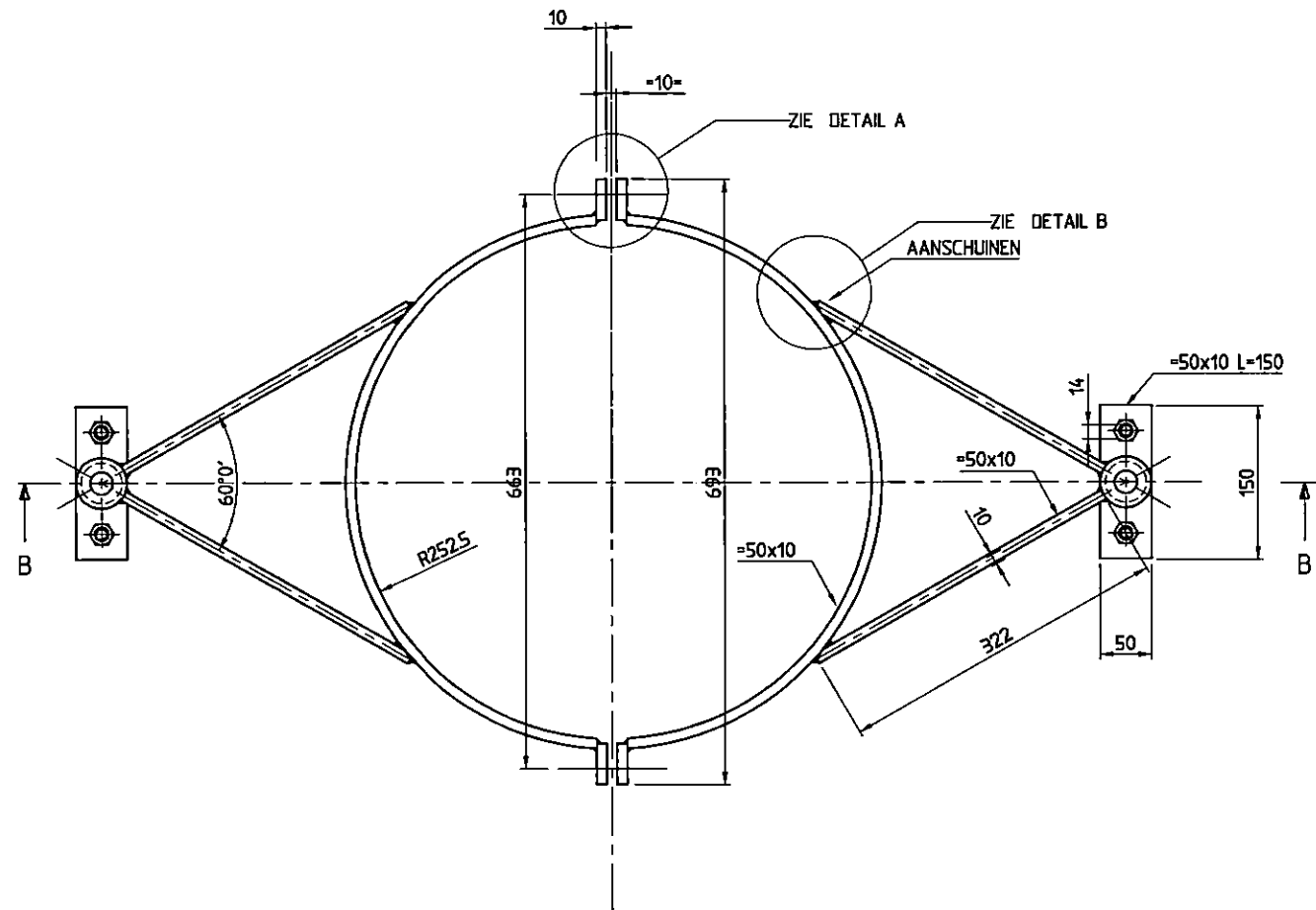


ZIE DETAIL



**OPMERING:** MATERIAAL A52 304  
LASSEN EETSSEN EN PASSIVEREN  
LASSEN BINNENZIJDE GEHEEL AFLASSEN  
KLEP GEHEEL AFLASSEN  
1 X UITVOEREN  
GEWICHT: 05 KG

Keywords - beverage	REV	28-5-02	A
Modification	Author	Date	Mark
FACTORY : COFFEE - SUFFOLK - USA			
PROCESS : COB & WINDMILL			



**OPMERKING:** MATERIAAL AISI 304  
LASSEN BEITSEN EN PASSIVEREN  
BEVESTIGINGSMATERIAAL AISI / A2  
2 x UITVOEREN  
GEWICHT: 25 KG

FACTORY : COFFEE - SUFFOLK - USA  
PROCESS : SPRAYDRYER  
PART : CLAMP FOR PIPE D=500

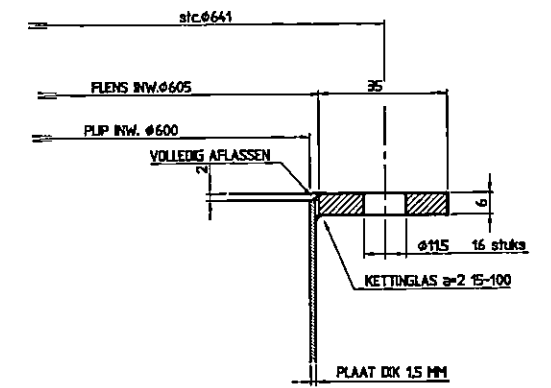
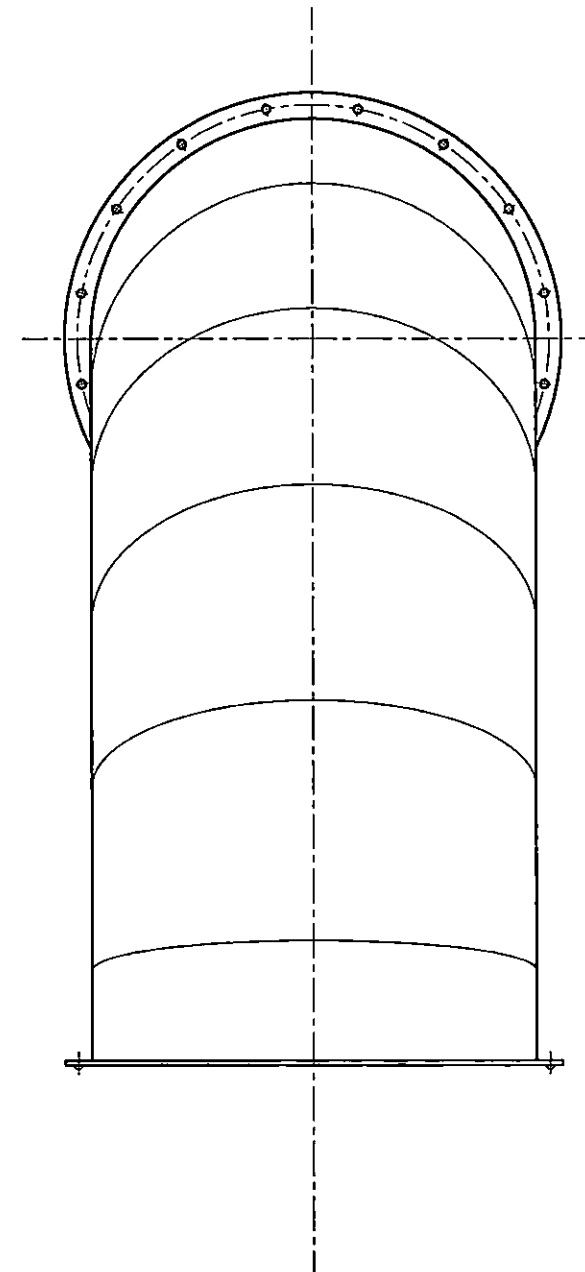
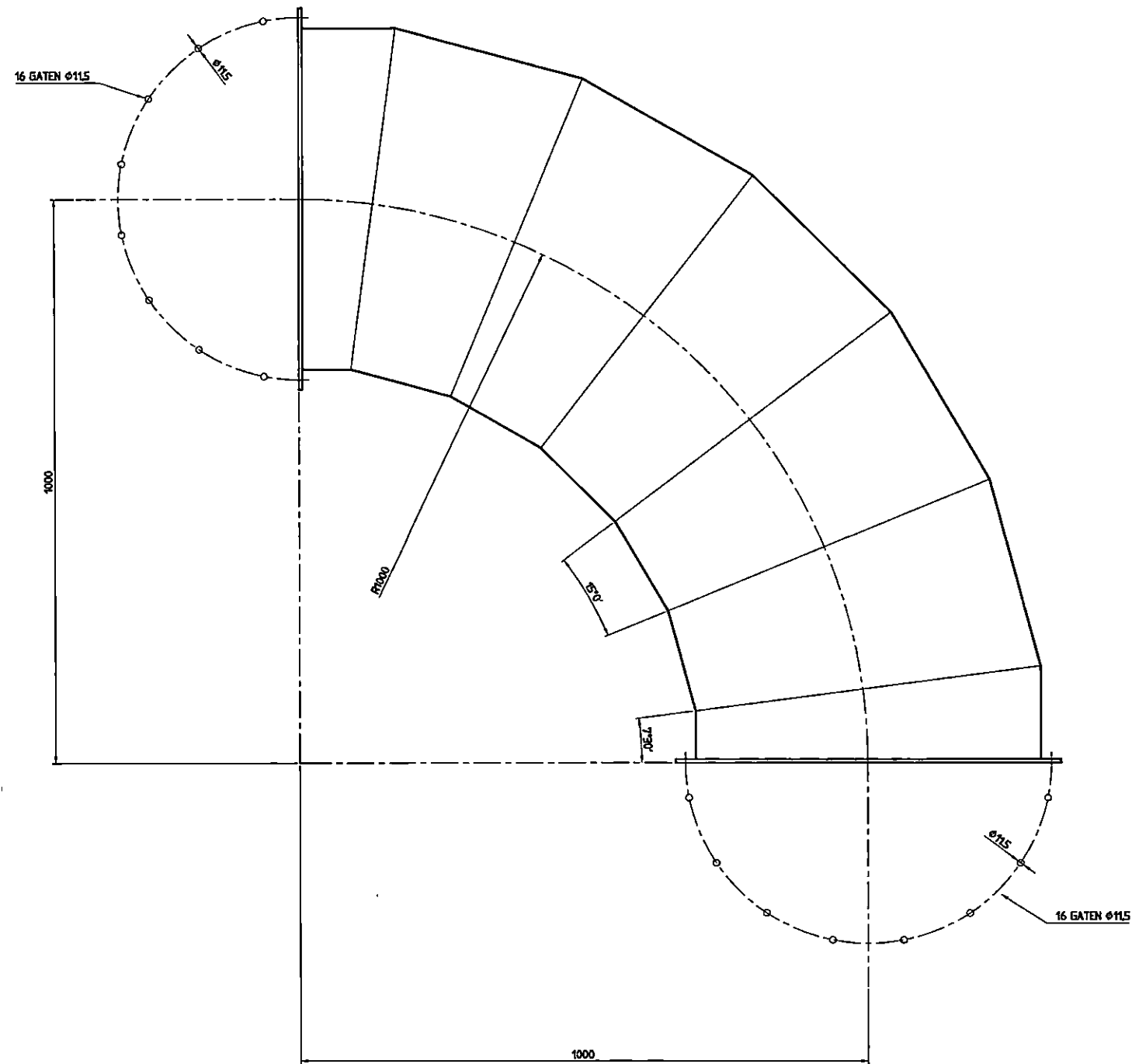
SCALE : 1:5  
AUT.: R. Wink

GROUP: 103  
Date: Aug-28-01

**Sara Lee/DE**  
Operations C&T division  
Manufacturing Technology

SIZE  
A C

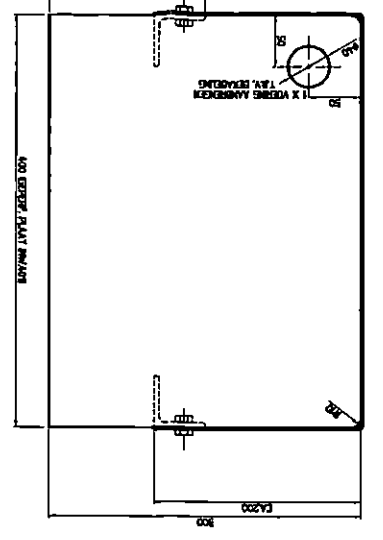
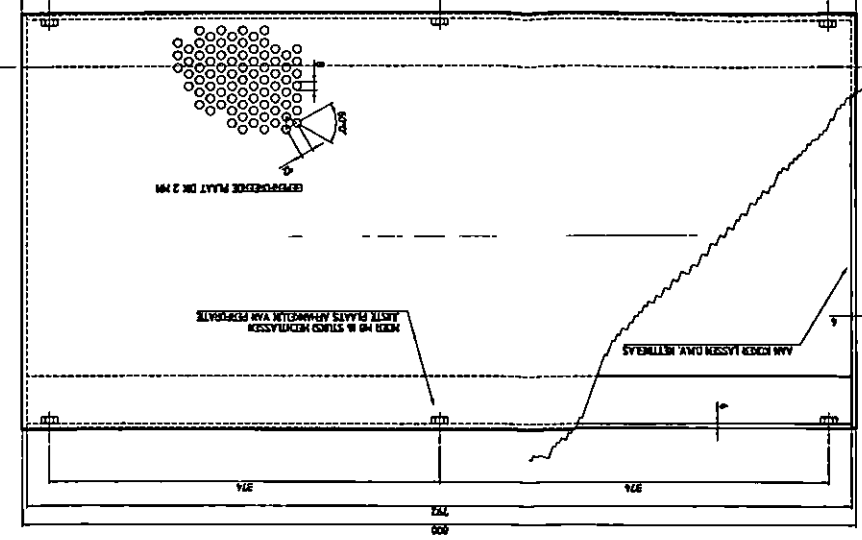
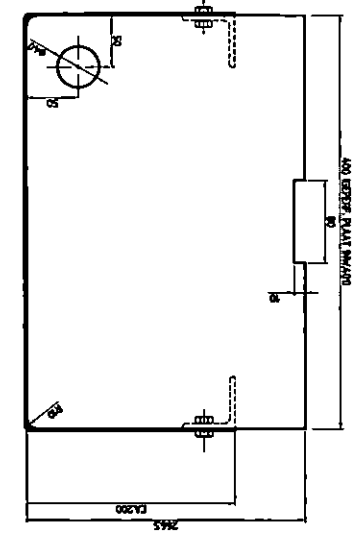
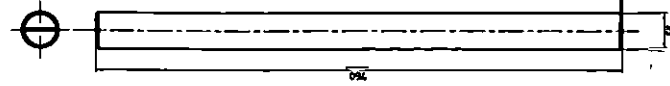
CAD-file: T161890  
CODE: FUS.02.00.T1



DETAIL FLENS  
SCHAAL 1:1

OPMERKING: MATERIAAL AISI 304  
LASSEN BEITSEN EN PASSIVEREN  
UITVOEREN: 1 STUKS  
GEWICHT: 95 KG

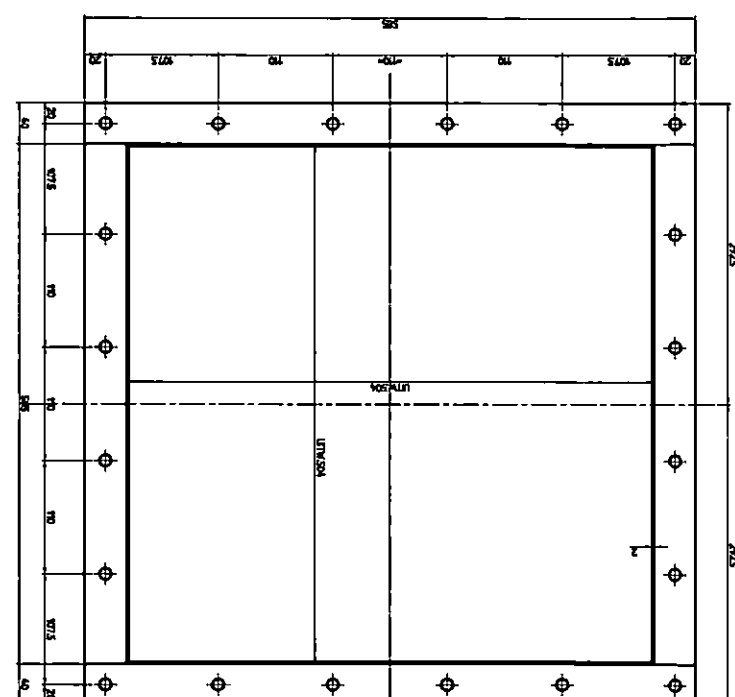
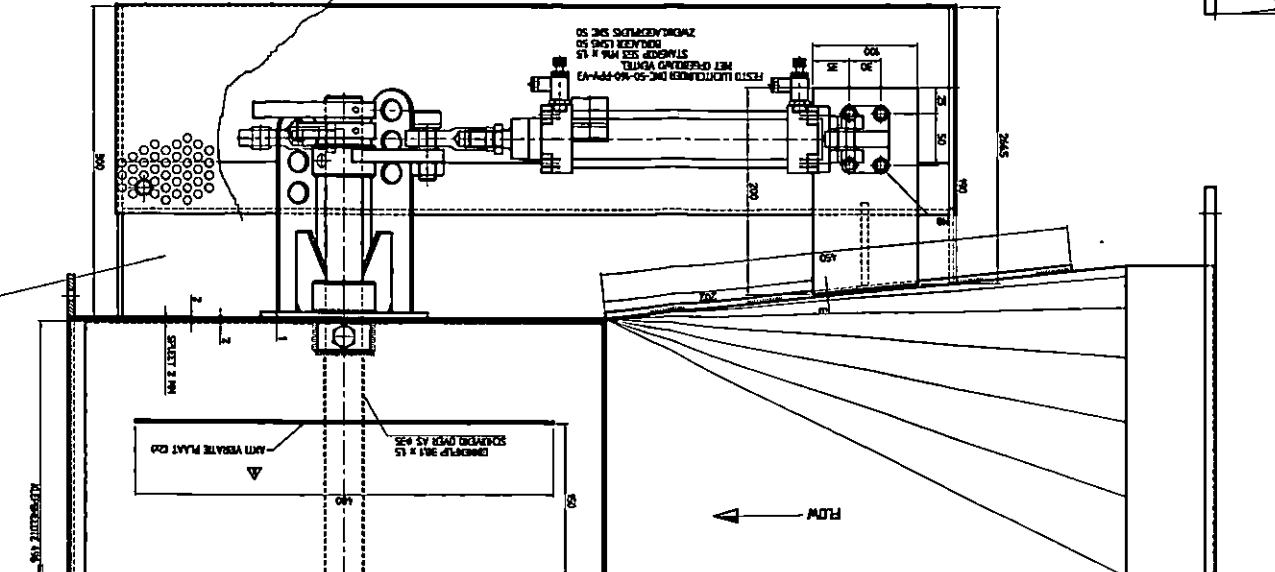
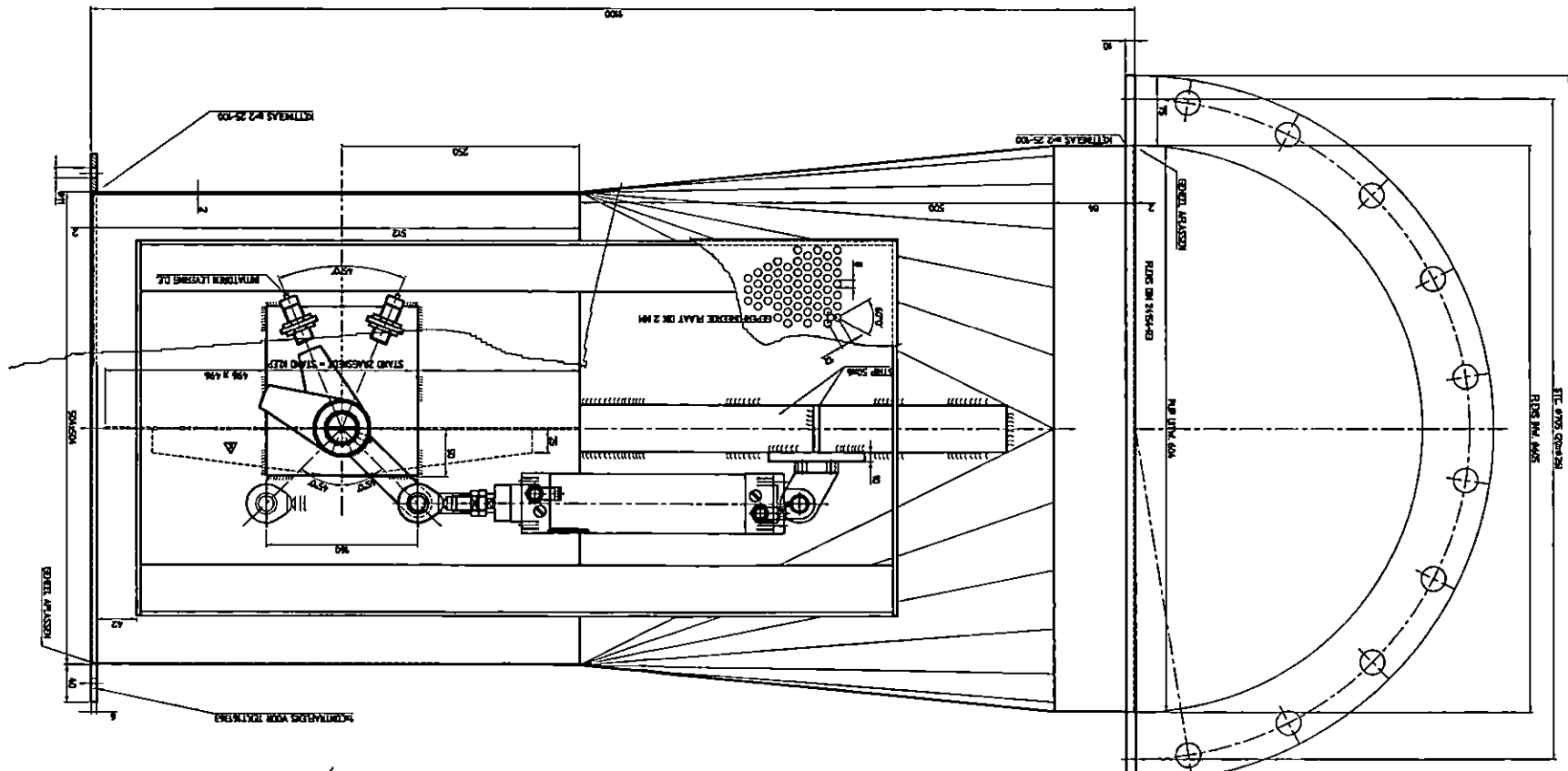
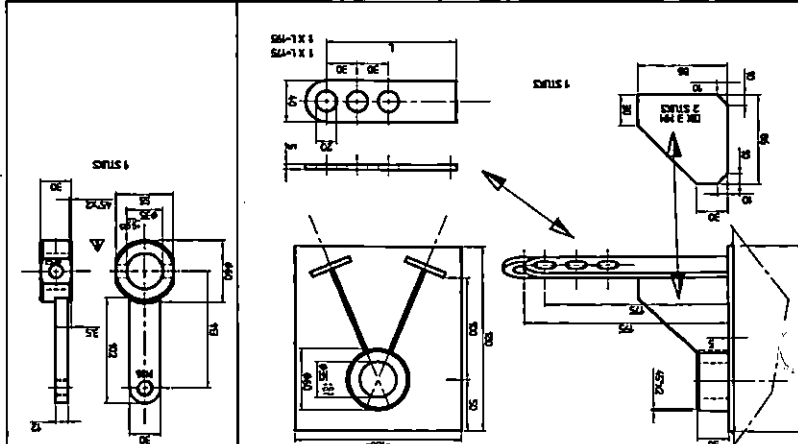
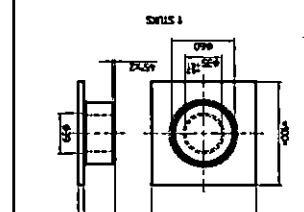
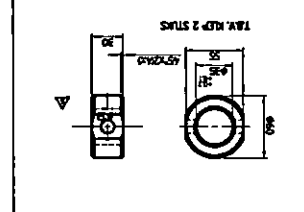
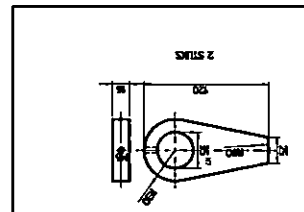


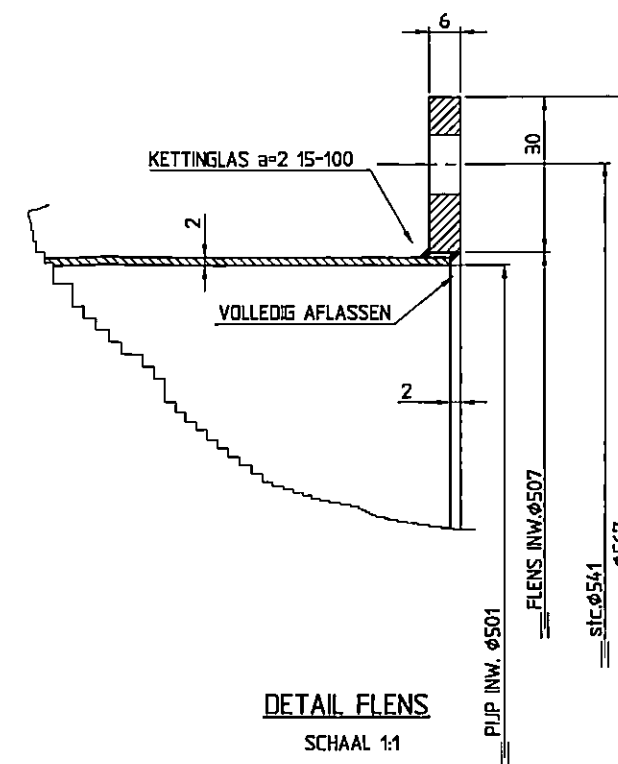
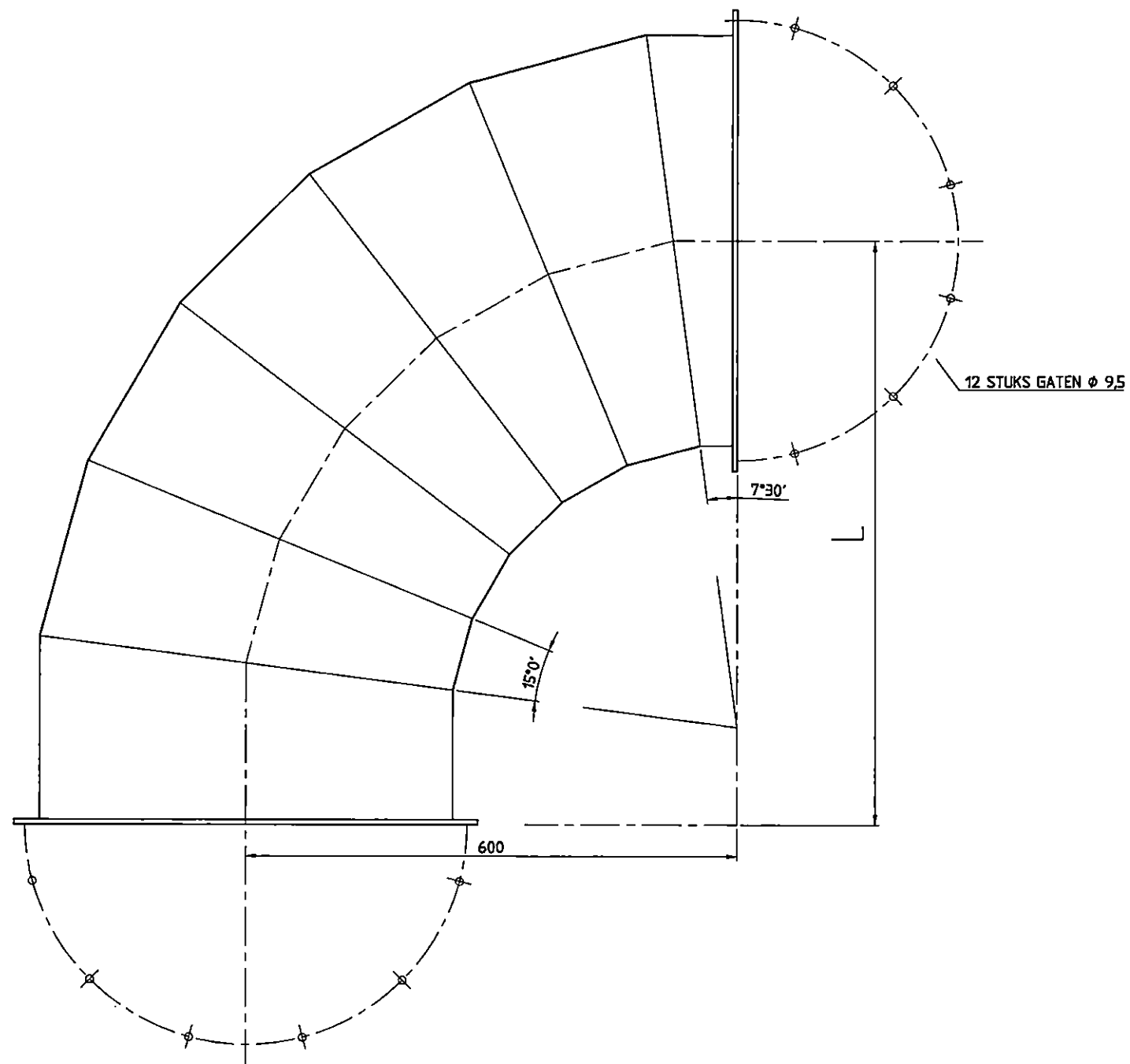


FABRIK - BENTON	
PROCESSES :	SPRAYING
FACTORY :	COFFEE - SURTOK - USA
DATE :	20-02
REVISION :	A

REVISIONS

NO	REVISION
1	REVISION
2	REVISION
3	REVISION
4	REVISION
5	REVISION
6	REVISION
7	REVISION
8	REVISION
9	REVISION
10	REVISION
11	REVISION
12	REVISION
13	REVISION
14	REVISION
15	REVISION
16	REVISION
17	REVISION
18	REVISION
19	REVISION
20	REVISION
21	REVISION
22	REVISION
23	REVISION
24	REVISION
25	REVISION
26	REVISION
27	REVISION
28	REVISION
29	REVISION
30	REVISION
31	REVISION
32	REVISION
33	REVISION
34	REVISION
35	REVISION
36	REVISION
37	REVISION
38	REVISION
39	REVISION
40	REVISION
41	REVISION
42	REVISION
43	REVISION
44	REVISION
45	REVISION
46	REVISION
47	REVISION
48	REVISION
49	REVISION
50	REVISION
51	REVISION
52	REVISION
53	REVISION
54	REVISION
55	REVISION
56	REVISION
57	REVISION
58	REVISION
59	REVISION
60	REVISION
61	REVISION
62	REVISION
63	REVISION
64	REVISION
65	REVISION
66	REVISION
67	REVISION
68	REVISION
69	REVISION
70	REVISION
71	REVISION
72	REVISION
73	REVISION
74	REVISION
75	REVISION
76	REVISION
77	REVISION
78	REVISION
79	REVISION
80	REVISION
81	REVISION
82	REVISION
83	REVISION
84	REVISION
85	REVISION
86	REVISION
87	REVISION
88	REVISION
89	REVISION
90	REVISION
91	REVISION
92	REVISION
93	REVISION
94	REVISION
95	REVISION
96	REVISION
97	REVISION
98	REVISION
99	REVISION
100	REVISION

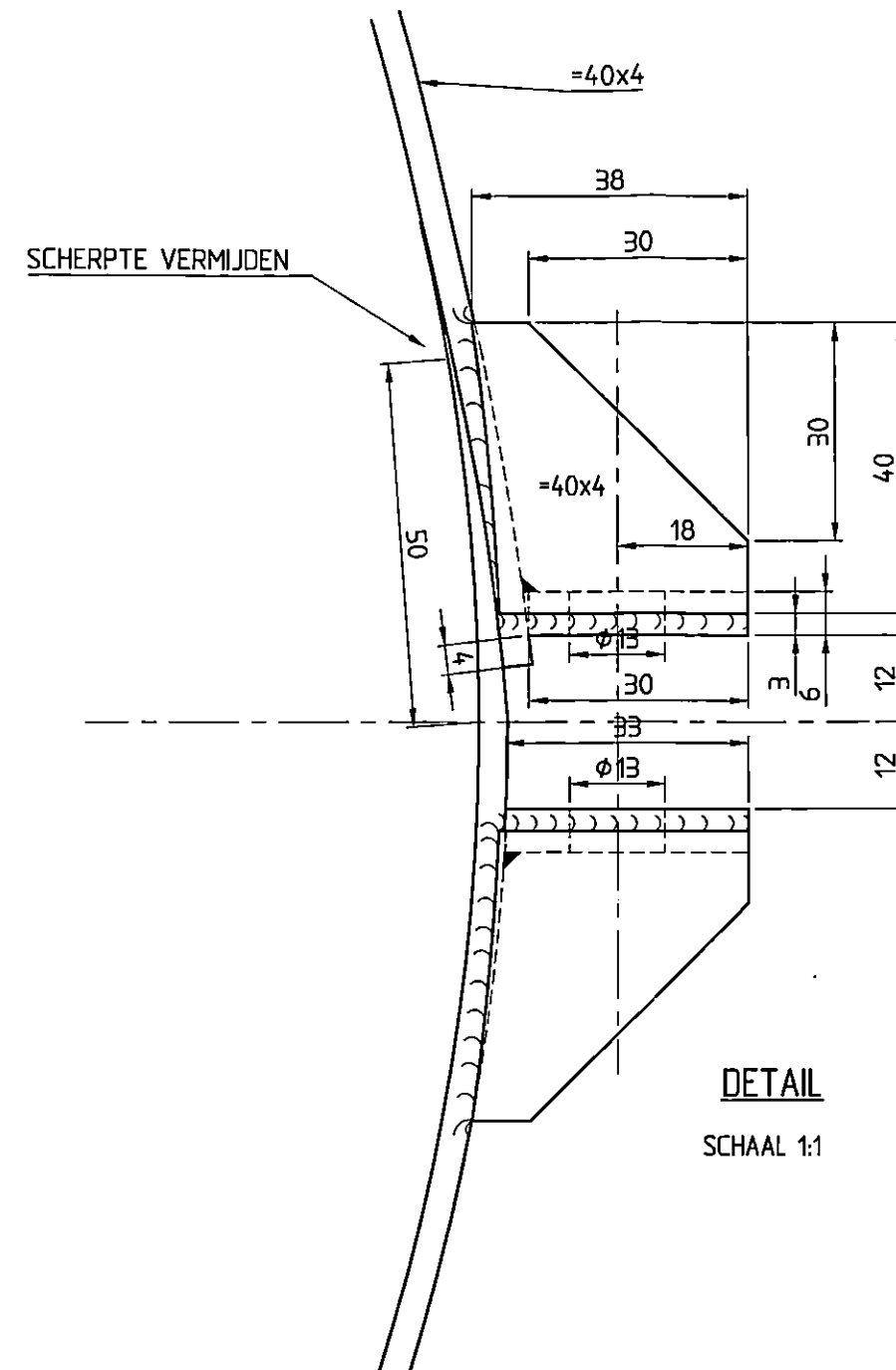
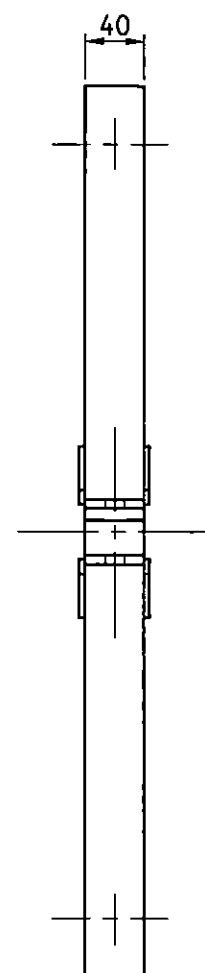
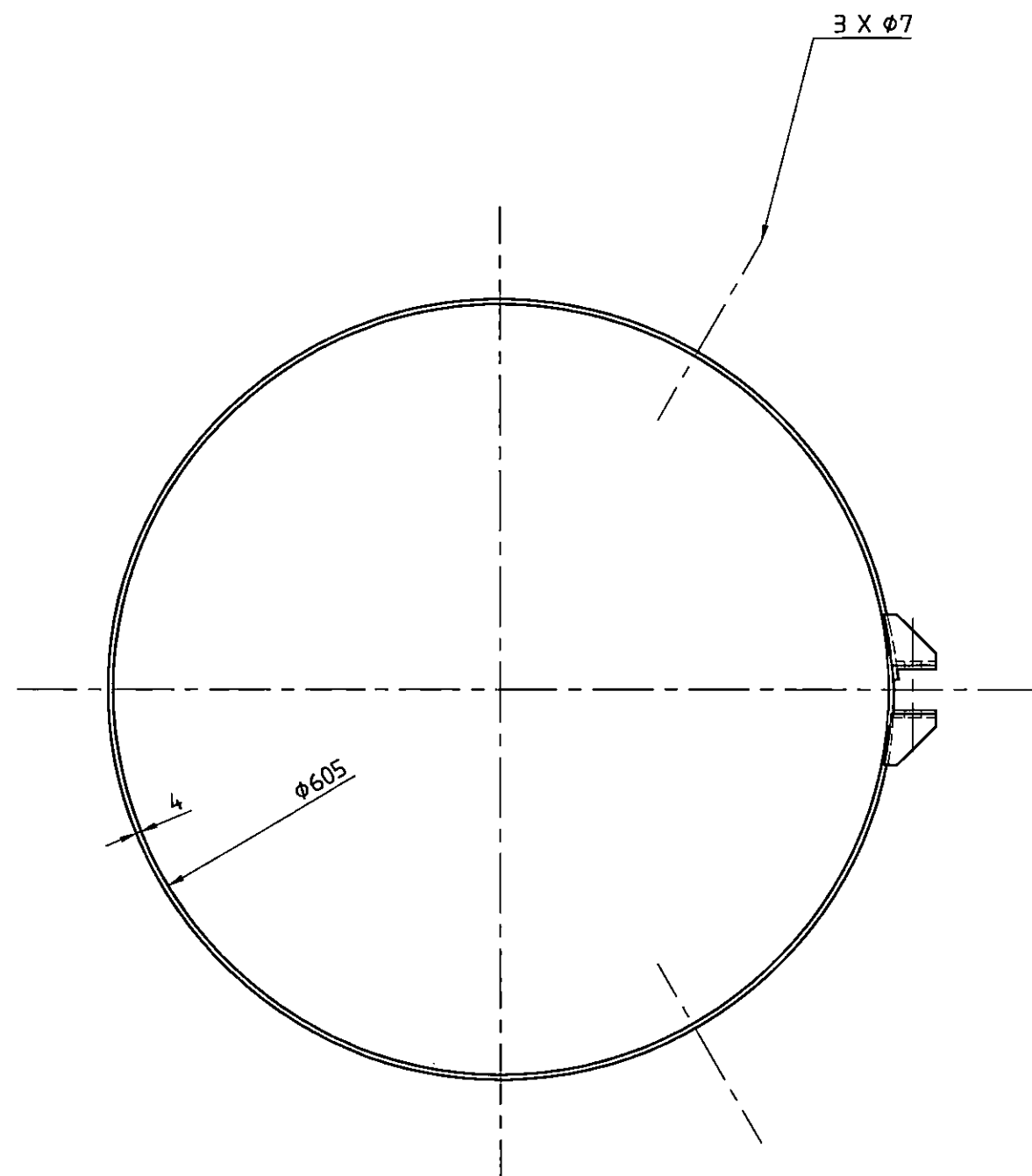




UITVOEREN AANTAL:	1 STUKS L= 721
	1 STUKS L= 750

**OPMERKING:** MATERIAAL AISI 304  
 PAKKING GESCHIKT VOOR 80°C (FDA) DOOR FIB TE BEPALEN  
 LASSEN BEITSSEN EN PASSIVEREN  
 FLENZEN AAN BINNENZIJDE GEHEEL AFLASSEN  
 GEWICHT: 125 KG

FACTORY :	COFFEE -- SUFFOLK -- USA	 <b>Sara Lee/DE</b> Operations C&I division Manufacturing Technology	SIZE	CAD-file: T161899
PROCESS :	SPRAYDRYER			
PART :	BEND TO FURNACE INLET FAN D=500			
SCALE : 1:5	GROUP: 103			
AUT.: R. Wink	Date: Mar-22-01			CODE: FUS.02.00.T1



**OPMERKING:** MATERIAAL AISI 304  
 LASSEN BEITSEN EN PASSIVEREN  
 BEHOORT BIJ TEK. T161898  
 AANTAL 2 STUKS

FACTORY : COFFEE – SUFFOLK – USA  
 PROCESS : SPRAYDRYER  
 PART : HOSE CLAMP FOR EXPANSION JOINT D=500

SCALE : 1:5

GROUP: 103

AUT.: R. Wink

Date: Oct-17-01



**Sara Lee/DE**  
 Operations C&T division  
 Manufacturing Technology

SIZE

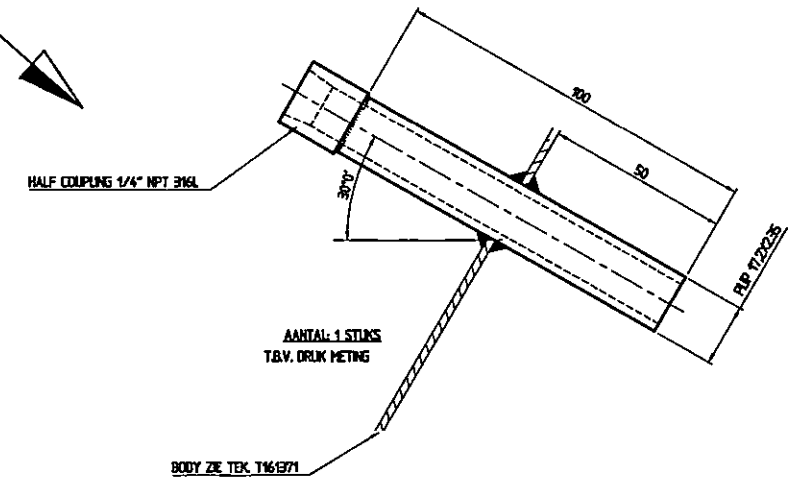
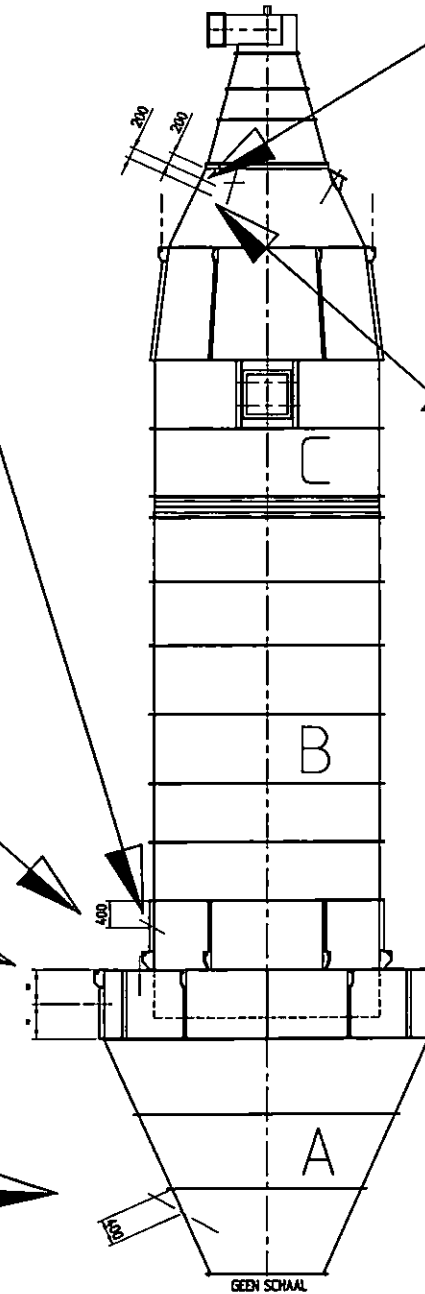
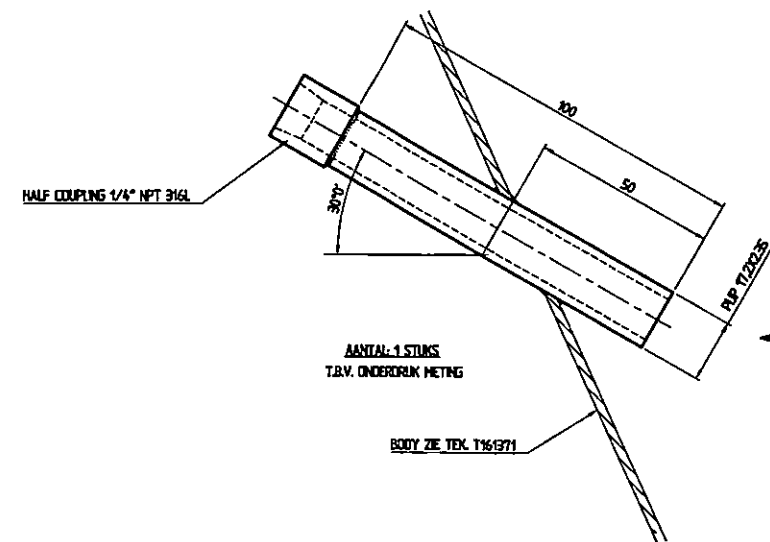
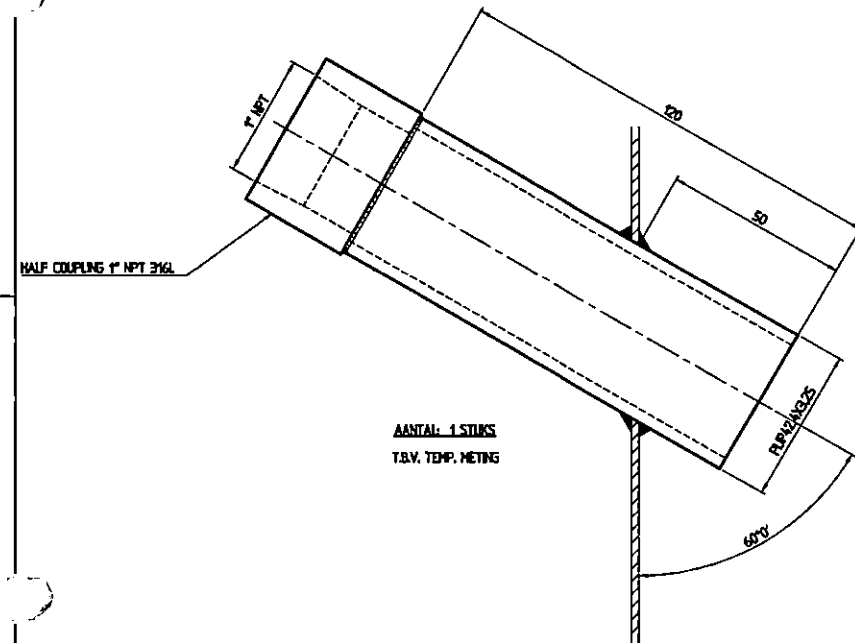
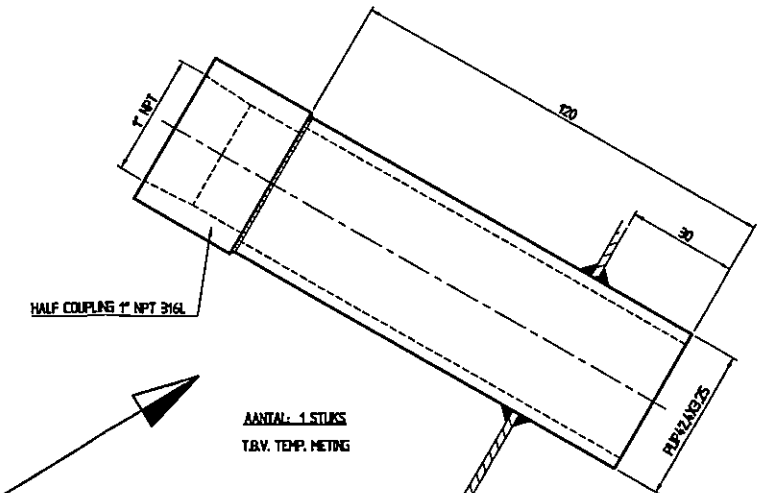
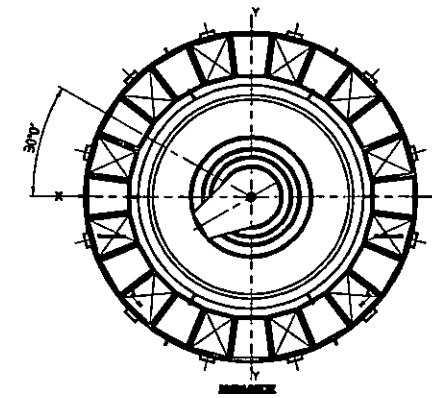
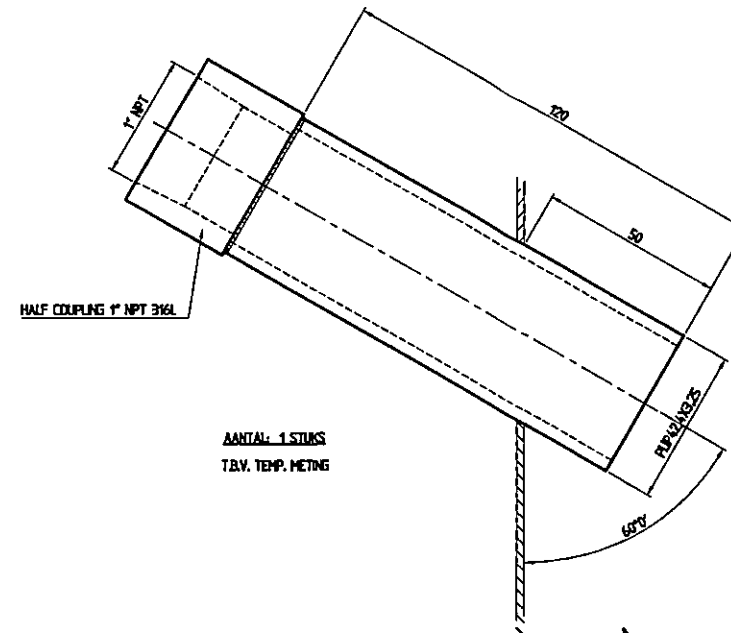
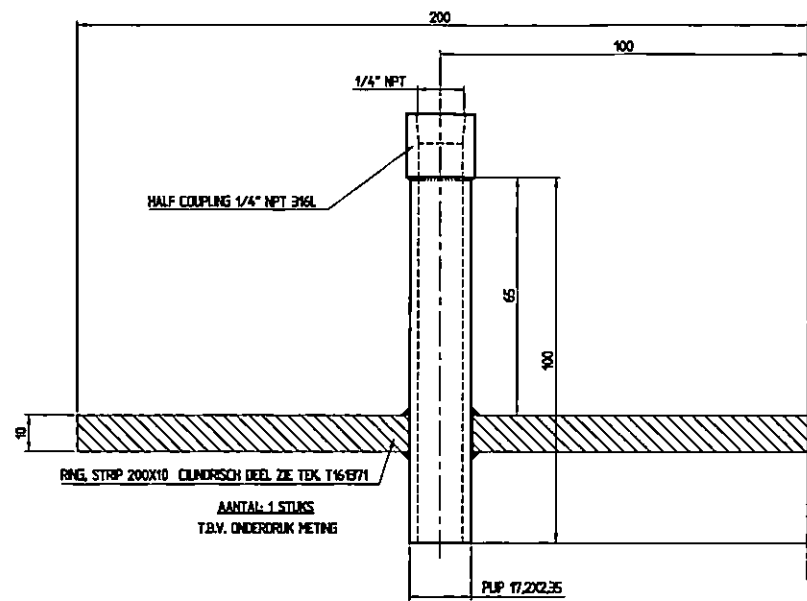
A Z

CAD-file: T161900

CODE: FUS.02.00.T1

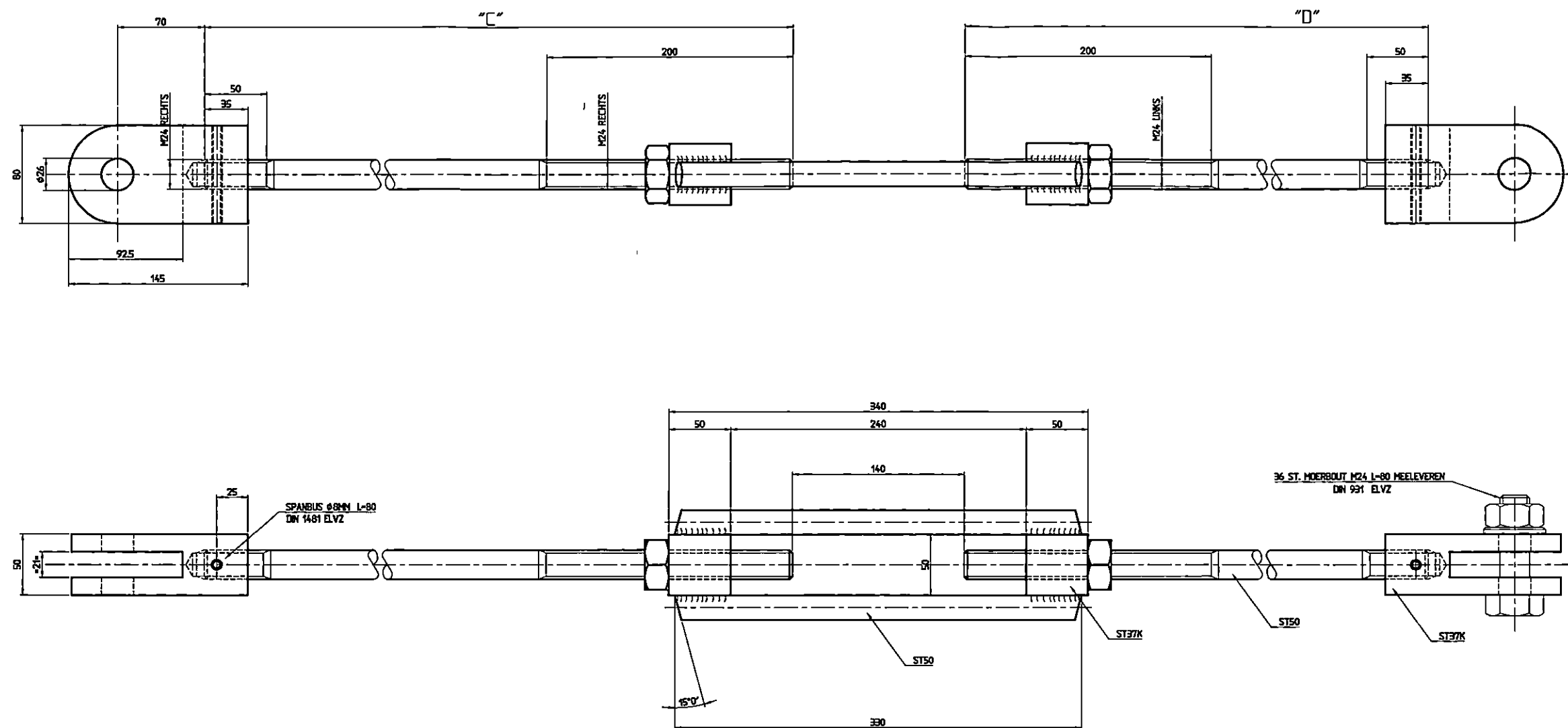
PAGE: 1

OF: 1



OPMERKING: MATERIAAL AISI 304  
 ALGEMENE BEWERKING: 32  
 TOTAAL AAN TE MAKEN VOOR DRUKMETING 4 STUKS  
 TOTAAL AAN TE MAKEN VOOR TEMP.METING 4 STUKS



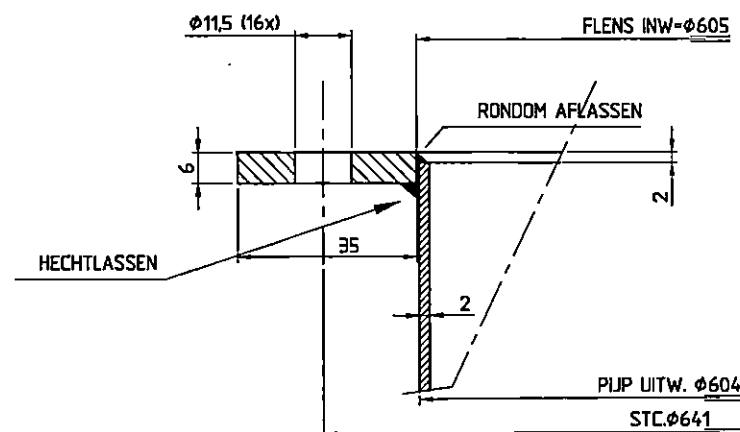
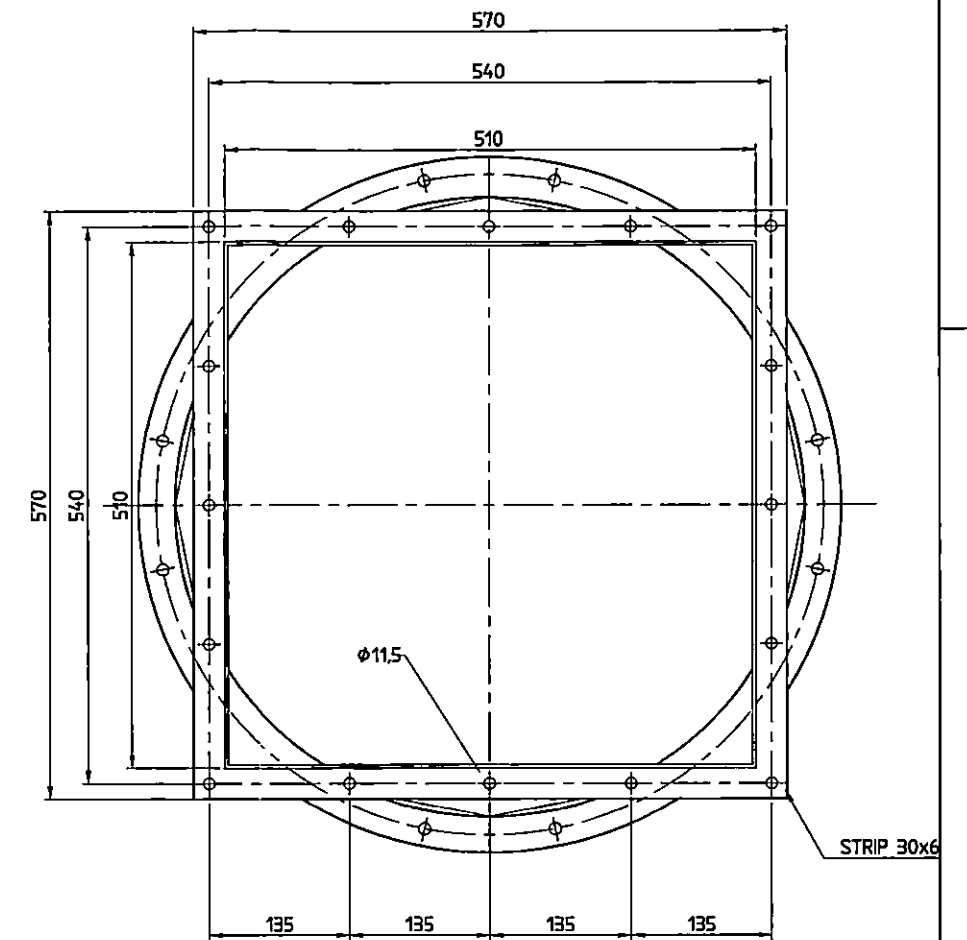
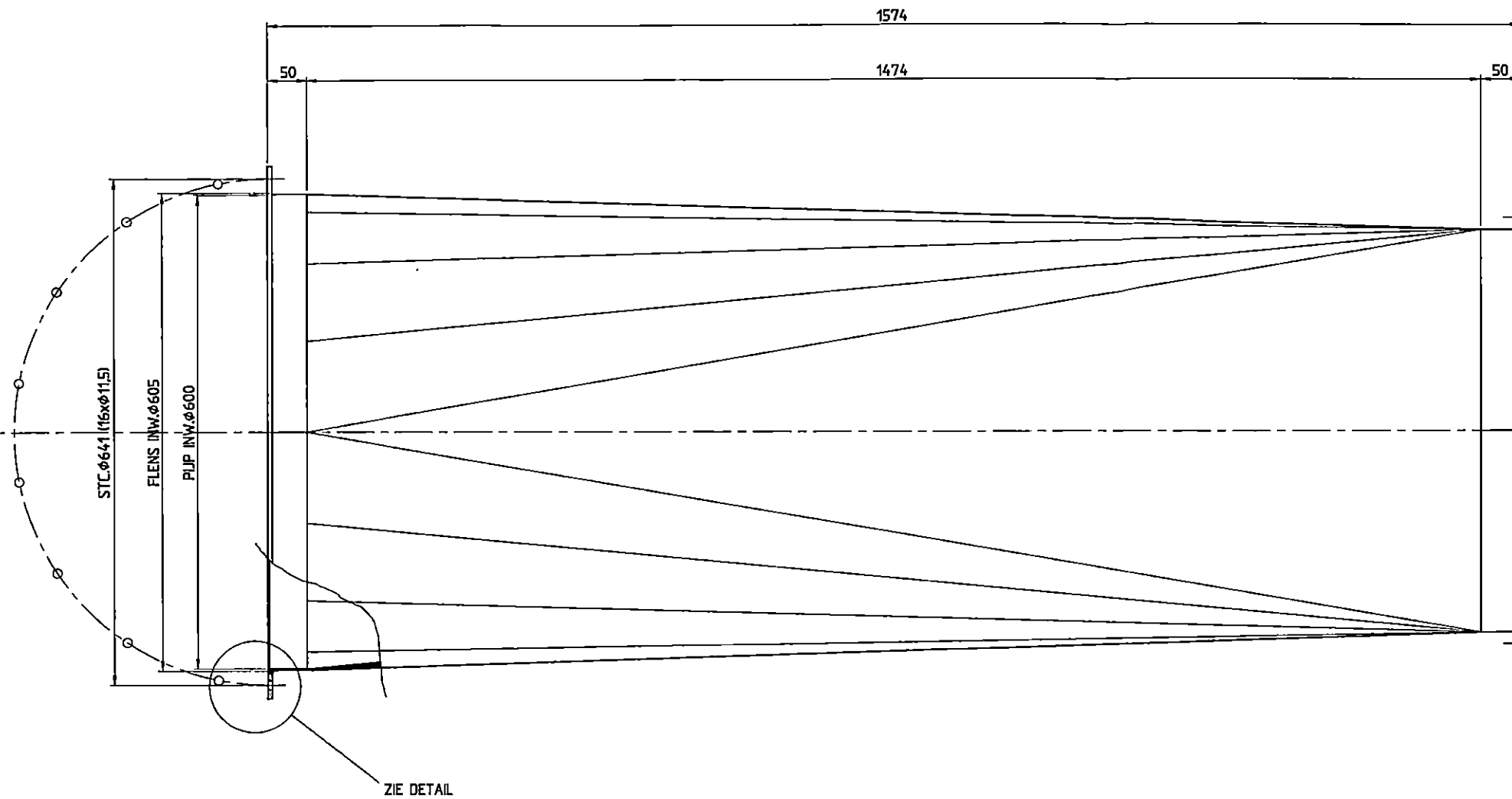


LENGTE OPHANGSTAVEN					
"C"	L=6542 MM	2 STUKS	POS.NR.1	ZIE OVERZICHT	
"C"	L=6542 MM	2 STUKS	POS.NR.2	ZIE OVERZICHT	
"C"	L=6300 MM	2 STUKS	POS.NR.3	ZIE OVERZICHT	
"C"	L=6728 MM	4 STUKS	POS.NR.4	ZIE OVERZICHT	
"C"	L=6728 MM	4 STUKS	POS.NR.5	ZIE OVERZICHT	
"C"	L=6728 MM	4 STUKS	POS.NR.6	ZIE OVERZICHT	
"D"	L= 665 MM	2 STUKS	POS.NR.1	ZIE OVERZICHT	
"D"	L=1622 MM	2 STUKS	POS.NR.2	ZIE OVERZICHT	
"D"	L=1310 MM	2 STUKS	POS.NR.3	ZIE OVERZICHT	
"D"	L= 665 MM	4 STUKS	POS.NR.4	ZIE OVERZICHT	
"D"	L=1622 MM	4 STUKS	POS.NR.5	ZIE OVERZICHT	
"D"	L=1310 MM	4 STUKS	POS.NR.6	ZIE OVERZICHT	

OPMERKING: MATERIAAL: ST 37K / ST50  
 ONTVETTEN EN AFWERKEN MET COATING ZINCOR ZF 488 ZWART (ORAADOPPERVLAKKEN NIET)  
 OPHANGSTAVEN MET ZELFDE POS.NR. PAREN EN MERKEN  
 VOOR TOTAALOVERZICHT ZIE TEX. T161902

Length of carrying bar	RBW	Nbr-21-01	A
Modification	Author	Date	Mark
FACTORY : COFFEE - SUFFOLK - USA			
PROCESS : SPRAYDRYER			
PART : CARRYING BAR			
SCALE : 1:2	GROUP: 103	Sara Lee/DR	CAD-file: T161903





DETAIL RONDE FLENS  
SCHAAL 1:1

OPMERKING:

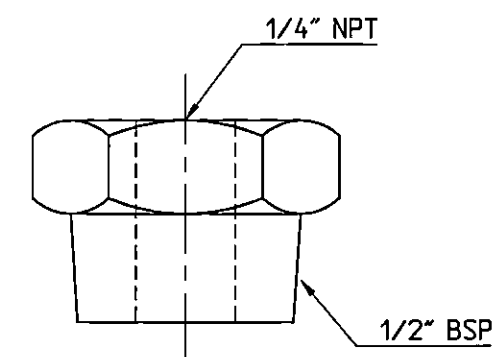
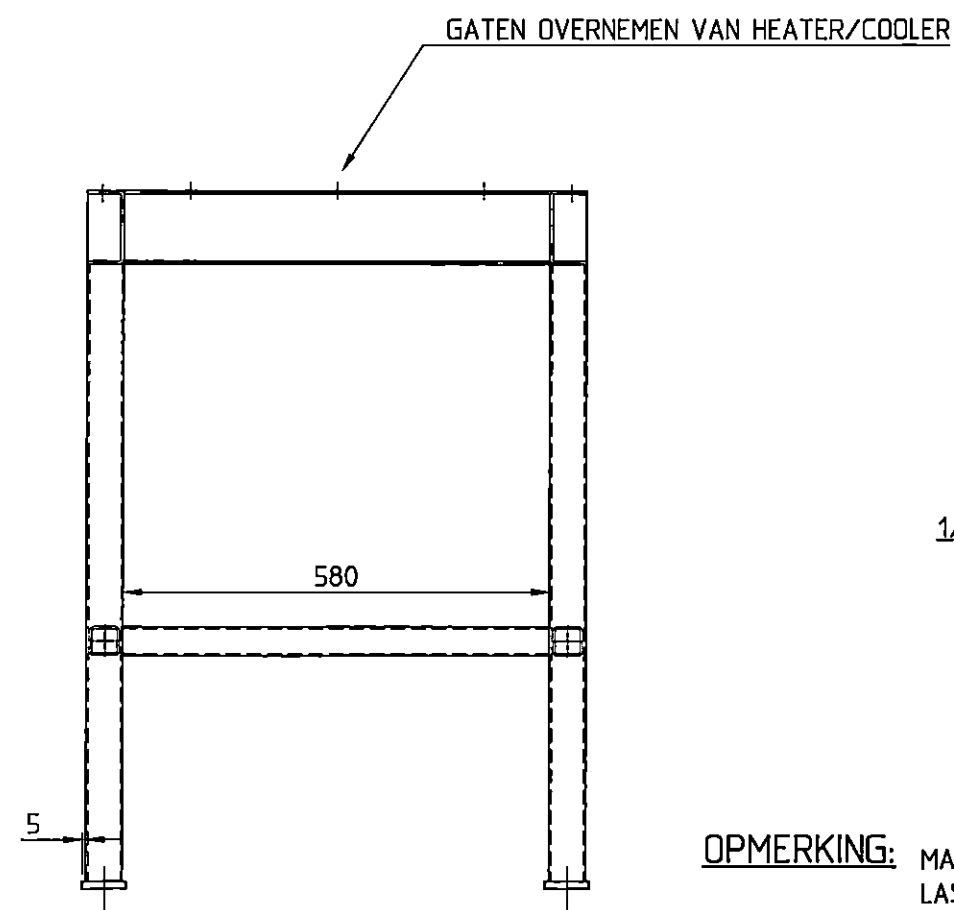
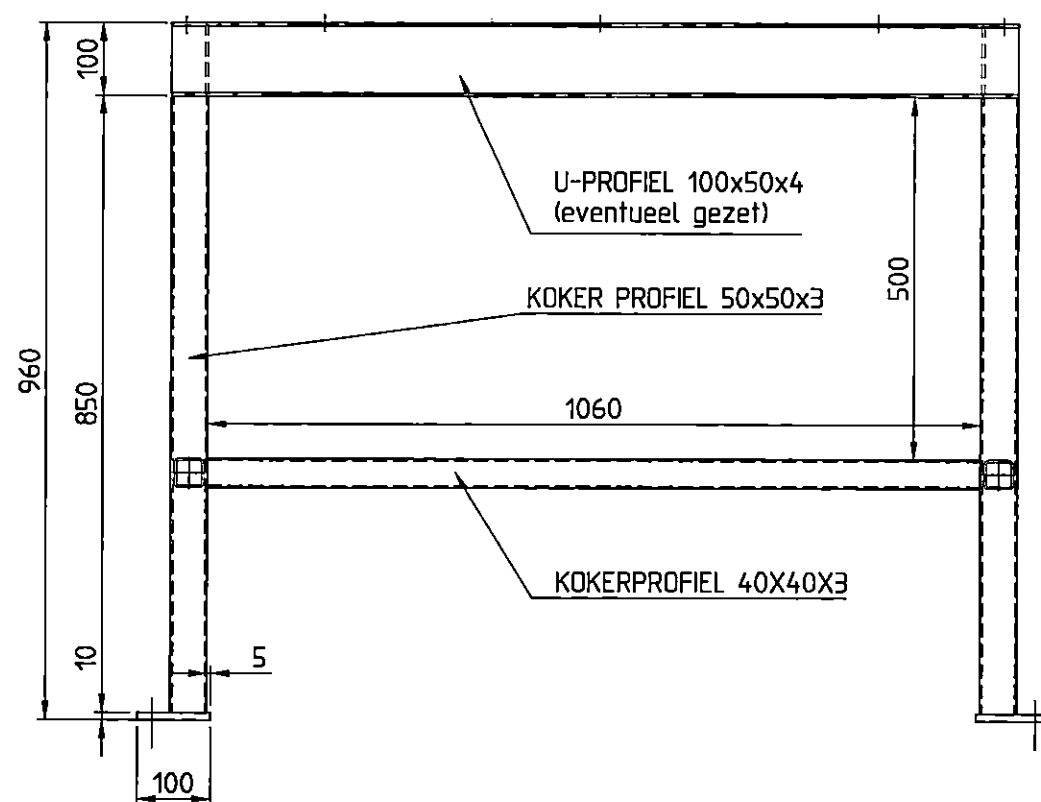
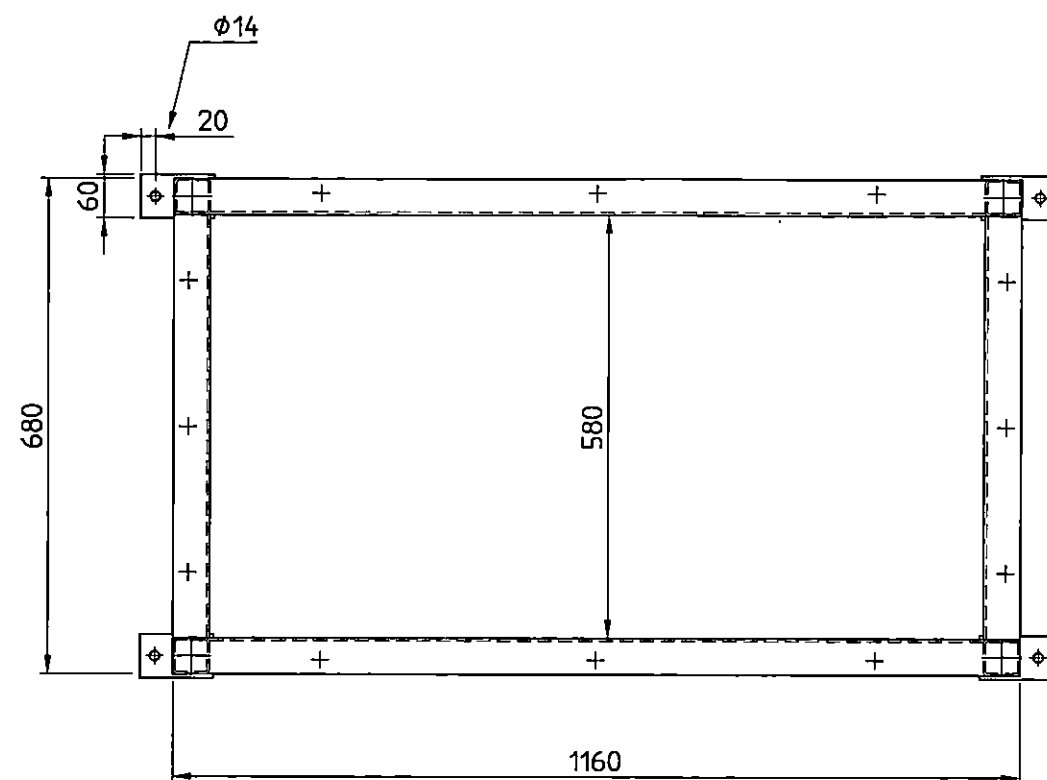
MATERIAAL AISI 304  
LASSEN BEITSSEN EN PASSIVEREN  
PAKKING GESCHIKT VOOR 80°C (FDA) DOOR FIB TE BEPALEN  
1 X UITVOEREN  
GEWICHT: 75 KG

FACTORY :	COFFEE - SUFFOLK - USA
PROCESS :	SPRAYDRYER
PART :	REDUCER PIPE OUTLETAIR D=600 / 510X510
SCALE : 1:5	GROUP: 103
AUT.: R. Wink	Date: 16-03-'01



Sara Lee/DE  
Operations C&T division  
Manufacturing Technology


SIZE  
A C  
CAD-file: T161906  
CODE: FUS.02.00.T1



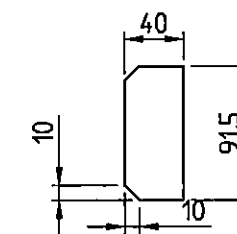
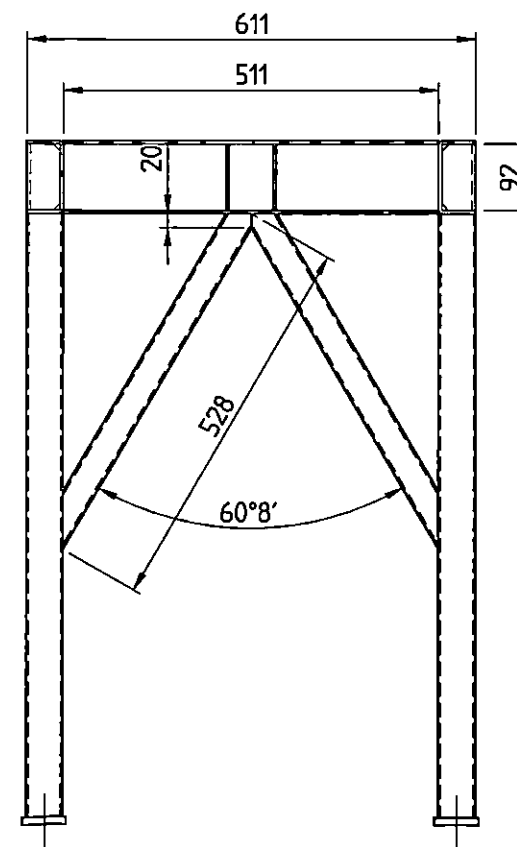
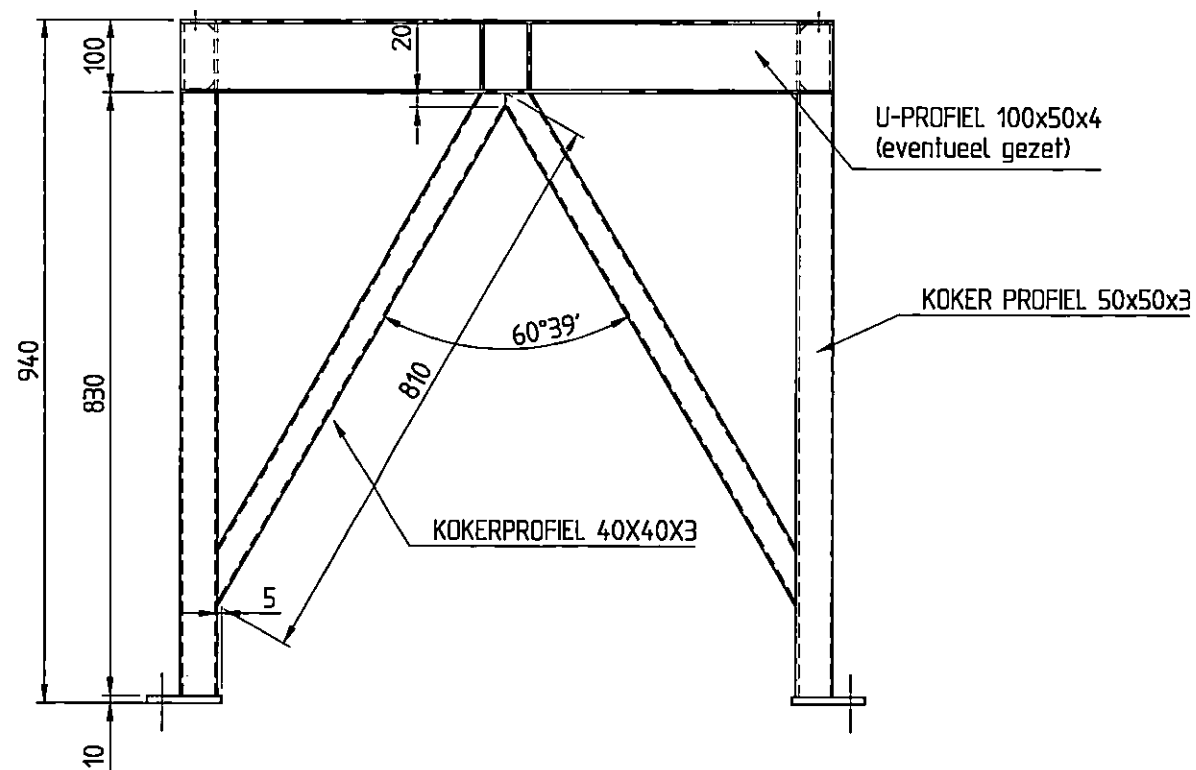
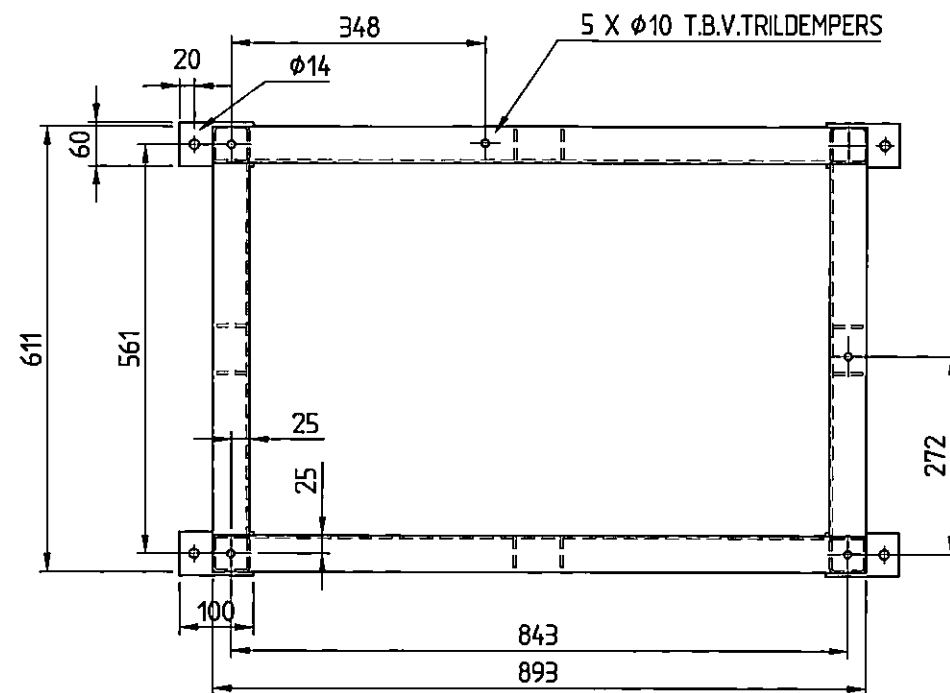
1/2" ZESKANTE PLUG  
SCHAAL 1:1

T.B.V. TEMPERATUUR VOELER HEATER/COOLER  
1 X UITVOEREN EN AAN FRAME BINDEN.

**OPMERKING:** MATERIAAL: AISI 304  
LASSEN BEITSEN EN PASSIVEREN  
GEWICHT: 65 KG

Zeskante plug ipv kap	RBW	10-01-'02	A
Wijziging	Getekend	Datum	Letter
FACTORY :	COFFEE - SUFFOLK - USA		
PROCESS :	SPRAYDRYER		
PART :	FRAME COOLER/HEATER OUTLET CONE		
SCALE : 1:10	GROUP: 103	 <b>Sara Lee/DE</b> Operations C&T division Manufacturing Technology	CAD-file: T161908
AUT.: R. Wink	Date: 15-10-'01		CODE: FUS.02.01.T1
CHIEF: R. Wink	Date: 15-10-'01	SIZE A Z	PAGE: 1 A OF: 1





SCHAAL 1:5  
VERSTERKINGSPLAATJE DIK 4 MM 8 STUKS

**OPMERKING:** MATERIAAL: AISI 304  
LASSEN BEITSEN EN PASSIVEREN  
GEWICHT: 75 KG

FACTORY : COFFEE – SUFFOLK – USA  
PROCESS : SPRAYDRYER  
PART : FRAME FAN FOR COOLER/HEATER OUTLET CONE

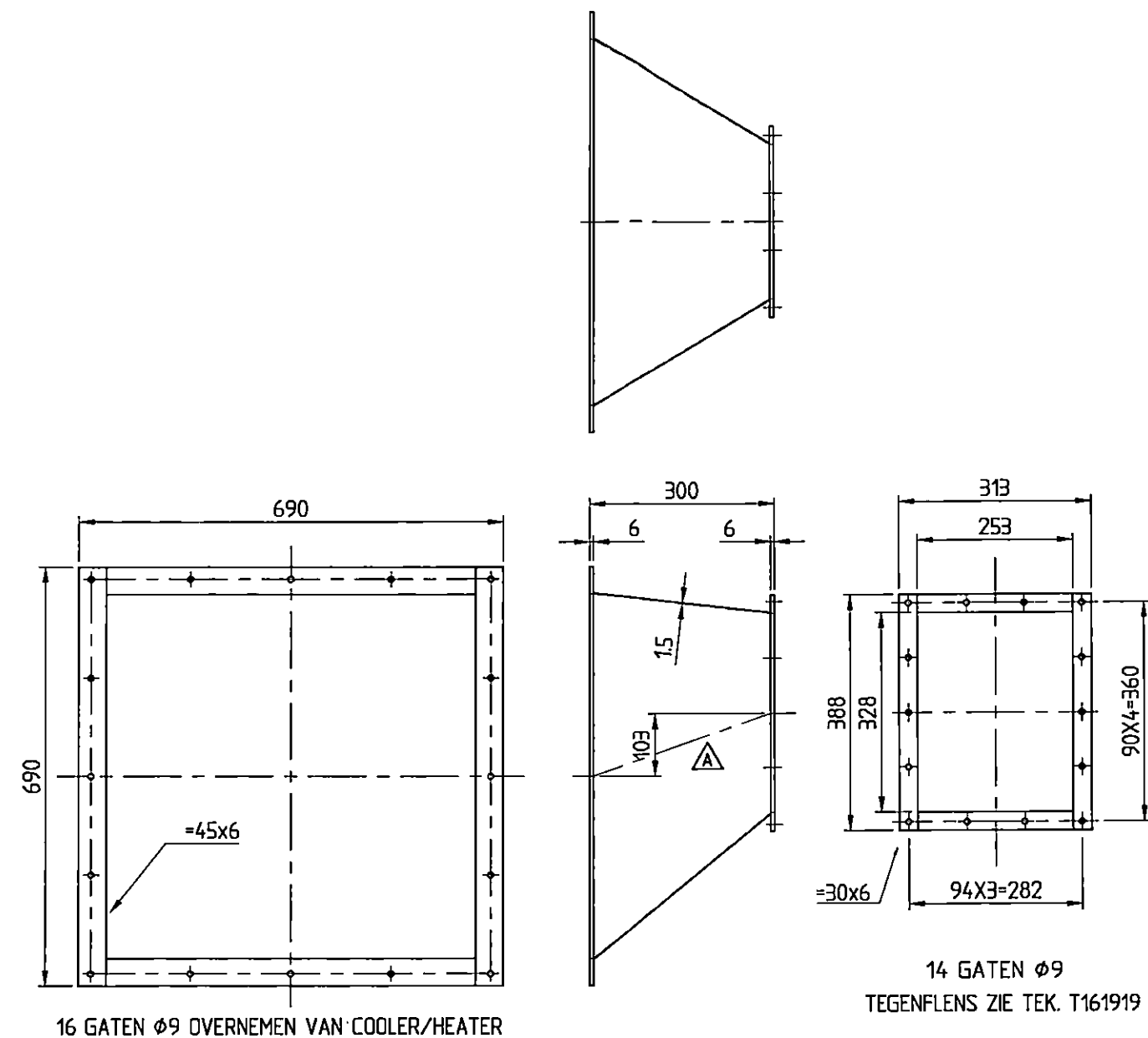
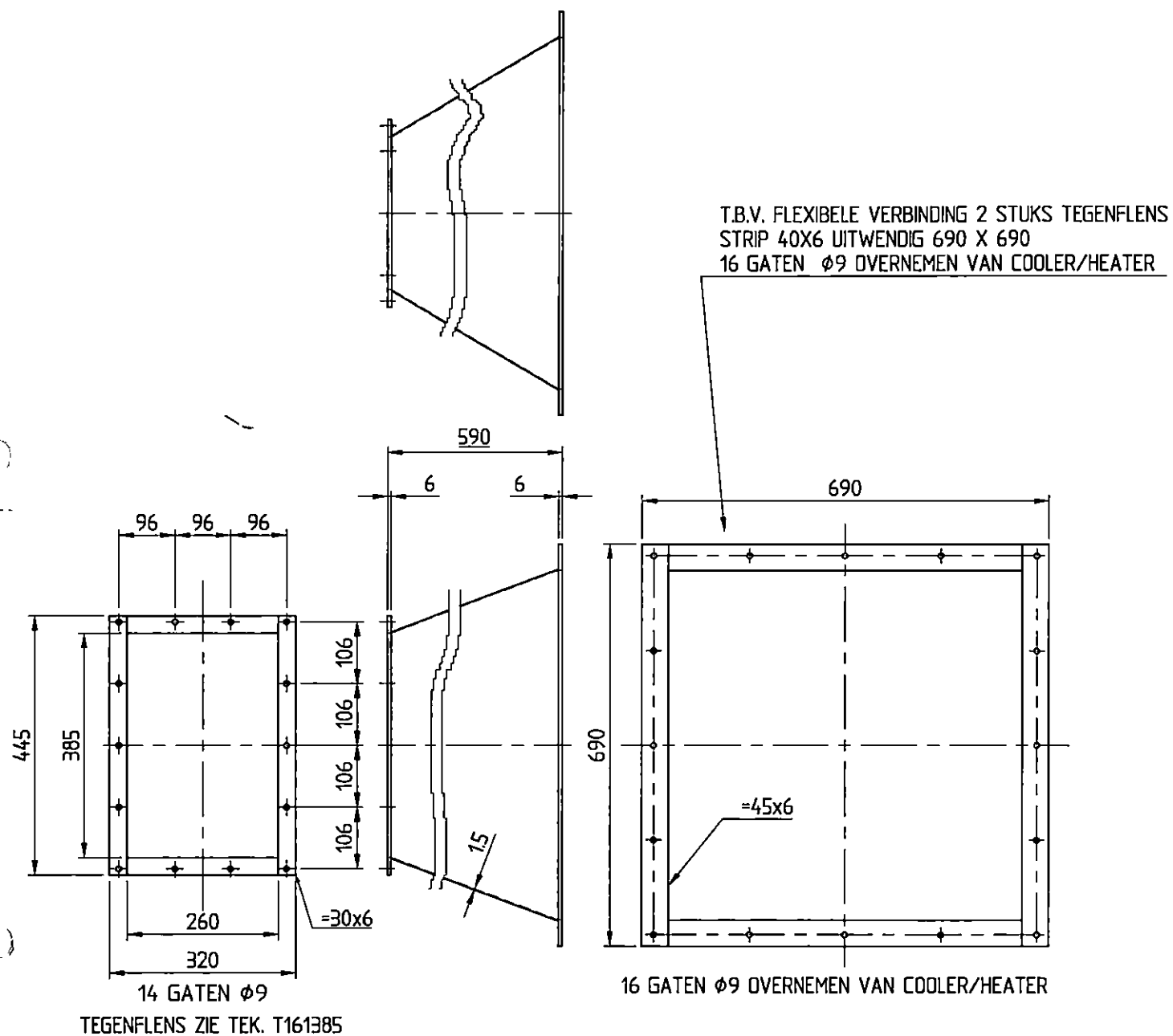
SCALE : 1:10  
AUT.: R. Wink  
GROUP: 103  
Date: Jul-19-01




Sara Lee/DE  
Operations C&T division  
Manufacturing Technology

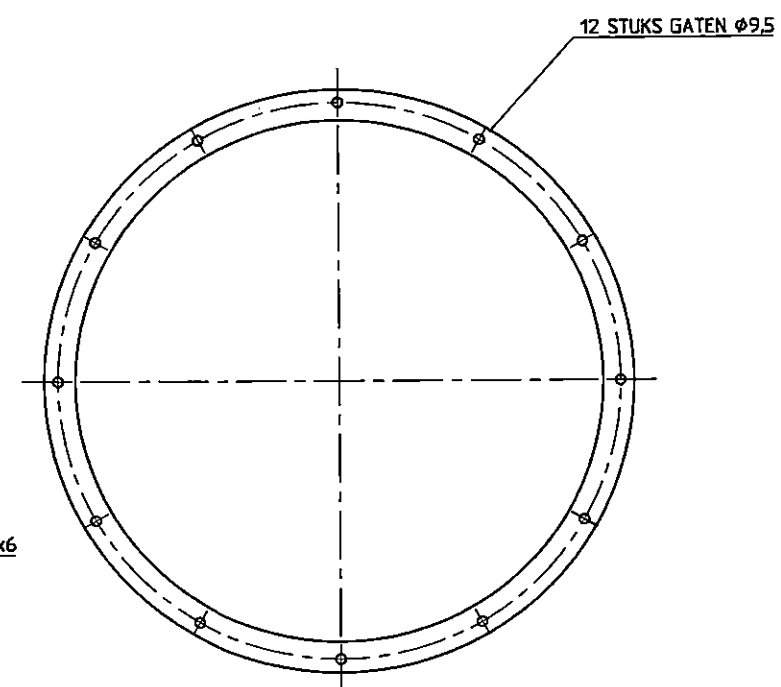
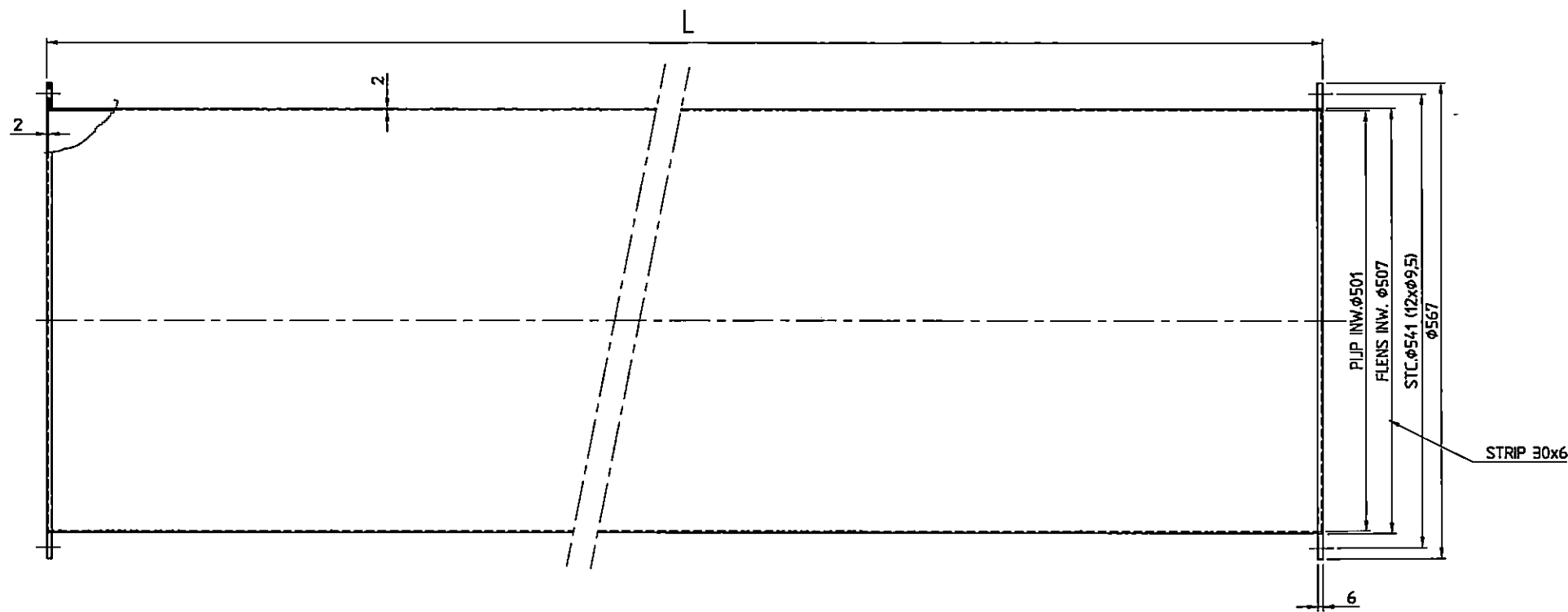
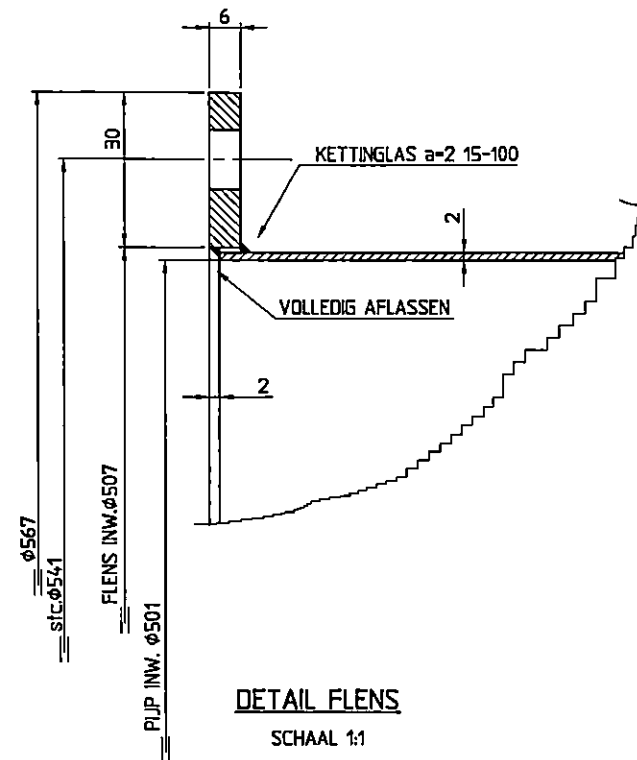
SIZE  
A 3  
CAD-file: T161909  
CODE: FUS.02.01.T1

PAGE: 1 OF 1




**OPMERKING:** AISI 304  
LASSEN BINNENZIJDE GEHEEL AFLASSEN  
LASSEN BEITSEN EN PASSIVEREN  
GORE-TEX DF14 FLOWTITE PAKKING ERIKS  
GEWICHT: 85 KG

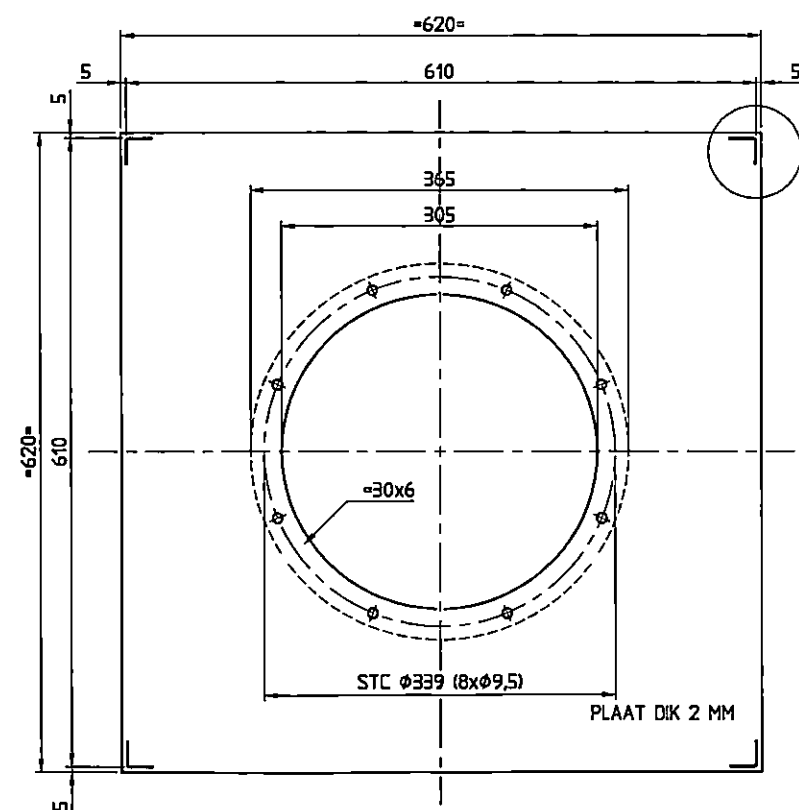
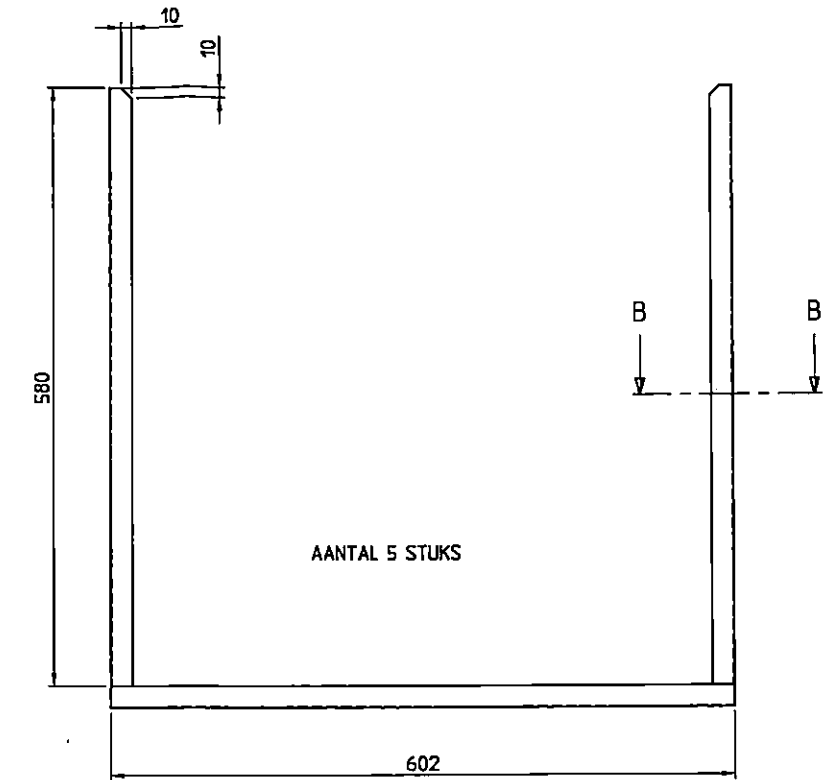
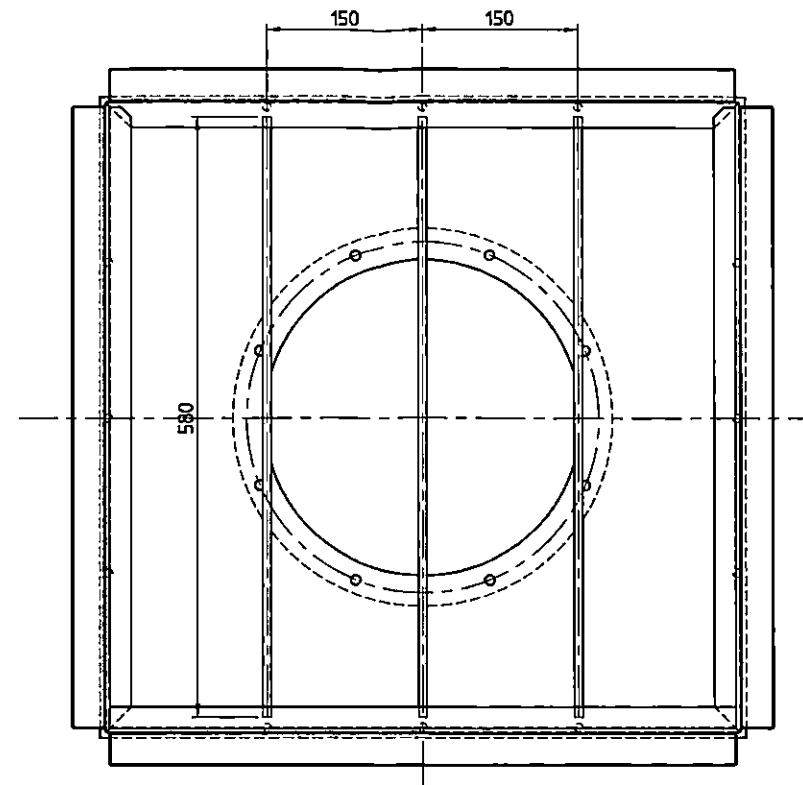
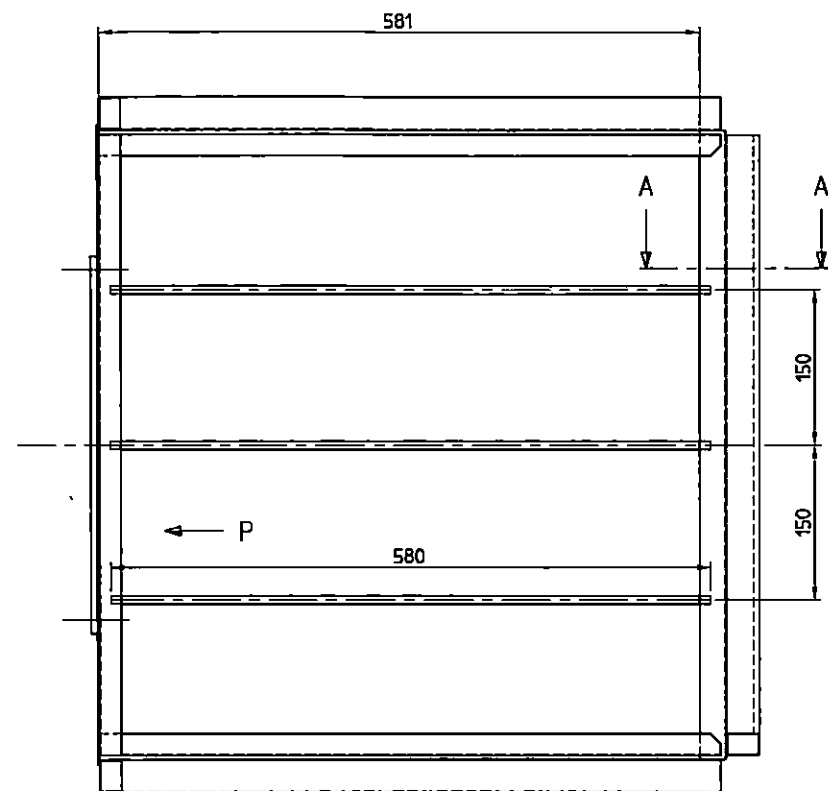
Move 103 mm	r.b.w.	Apr-10-02	A	
Modification	Author	Date	Mark	
FACTORY : COFFEE - SUFFOLK - USA				
PROCESS : SPRAYDRYER				
PART : REDUCERPIPPES COOLER/HEATER				
SCALE : 1:10	GROUP: 103		SIZE	CAD-file: T161910
AUT.: R. Wink	Date: Oct-15-01			CODE: FUS.02.01.T1
CHK: RM	Date:		Λ 3	PAGE: 1 OF 1



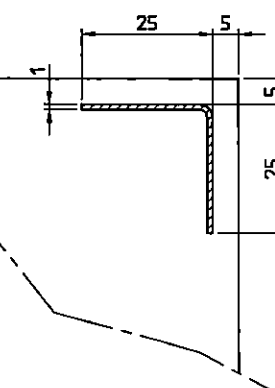
**OPMERKING:** MATERIAAL AISI 304  
PAKKING GESCHIKT VOOR 80°C (FDA) DOOR FIB TE BEPALEN  
LASSEN BEITSEN EN PASSIVEREN  
FLENZEN AAN BINNENZIJDE FLENS GEHEEL AFLASSEN  
GEWICHT: 398 KG

UITVOEREN AANTAL:		
6	X	L-2004 waarvan 1 stuks met 1 losse flens als passtuk
1	X	L-1200 met 1 losse flens als passtuk

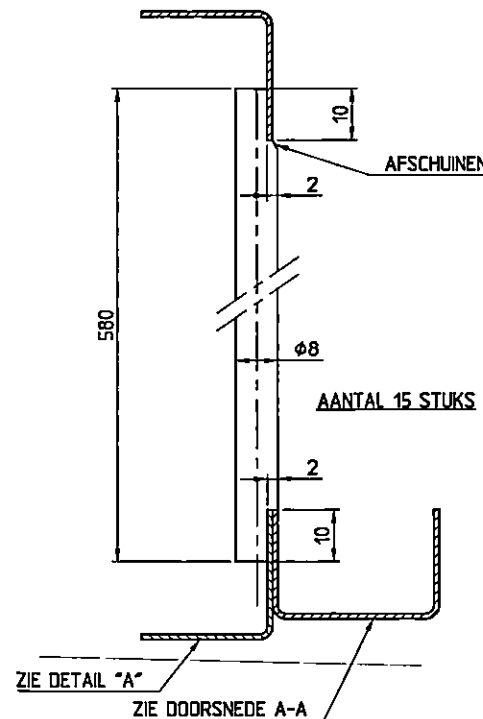
FACTORY : COFFEE - SUFFOLK - USA			Sara Lee/DE Operations C&T division Manufacturing Technology	SIZE A 2	CAD-file: T161897 CODE: FUS.02.00.T1
PROCESS : SPRAYDRYER					
PART : INLET AIR PIPE D=500					
SCALE : 1:5	GROUP: 103				
AUT.: R. Wink	Date: Mar-16-01				



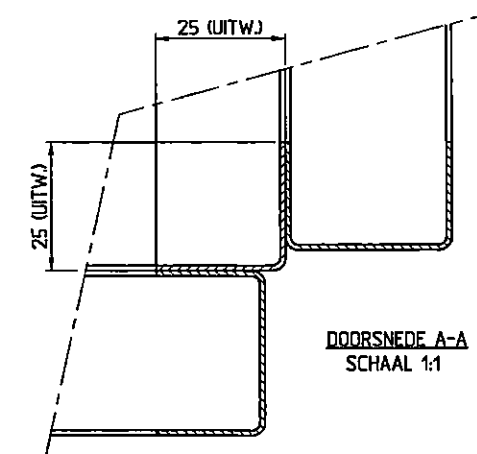
ZIE DETAIL A



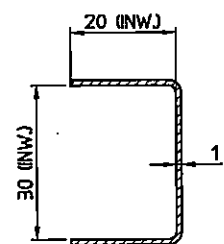
DETAIL "A"  
SCHAAL 1:1



DETAIL STEUNSTANG  
SCHAAL 1:1




DOORSNEDE A-A  
SCHAAL 1:1



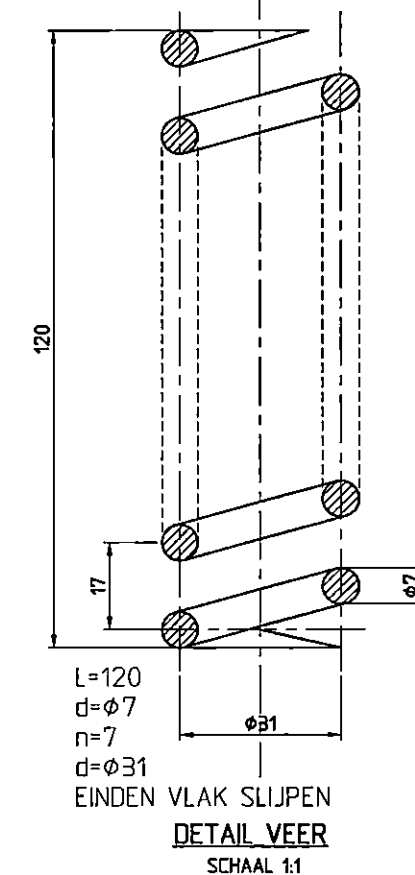
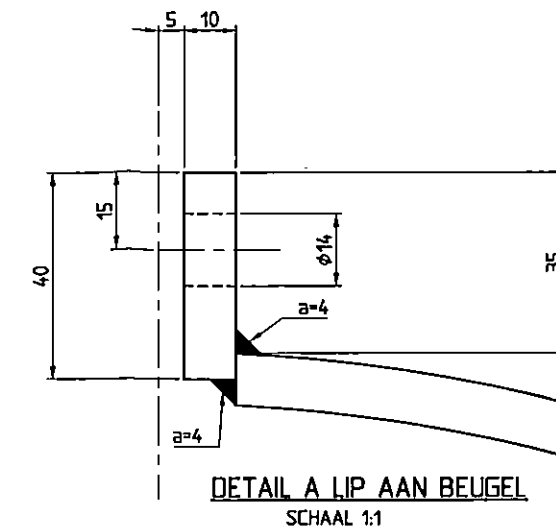
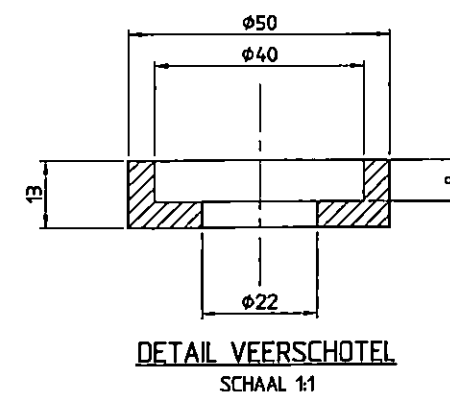
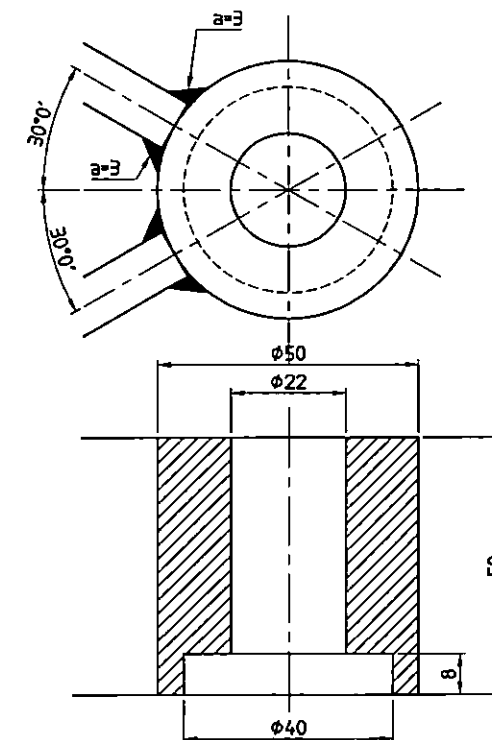
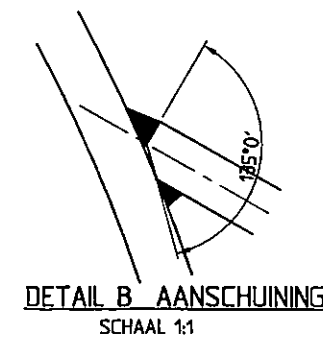
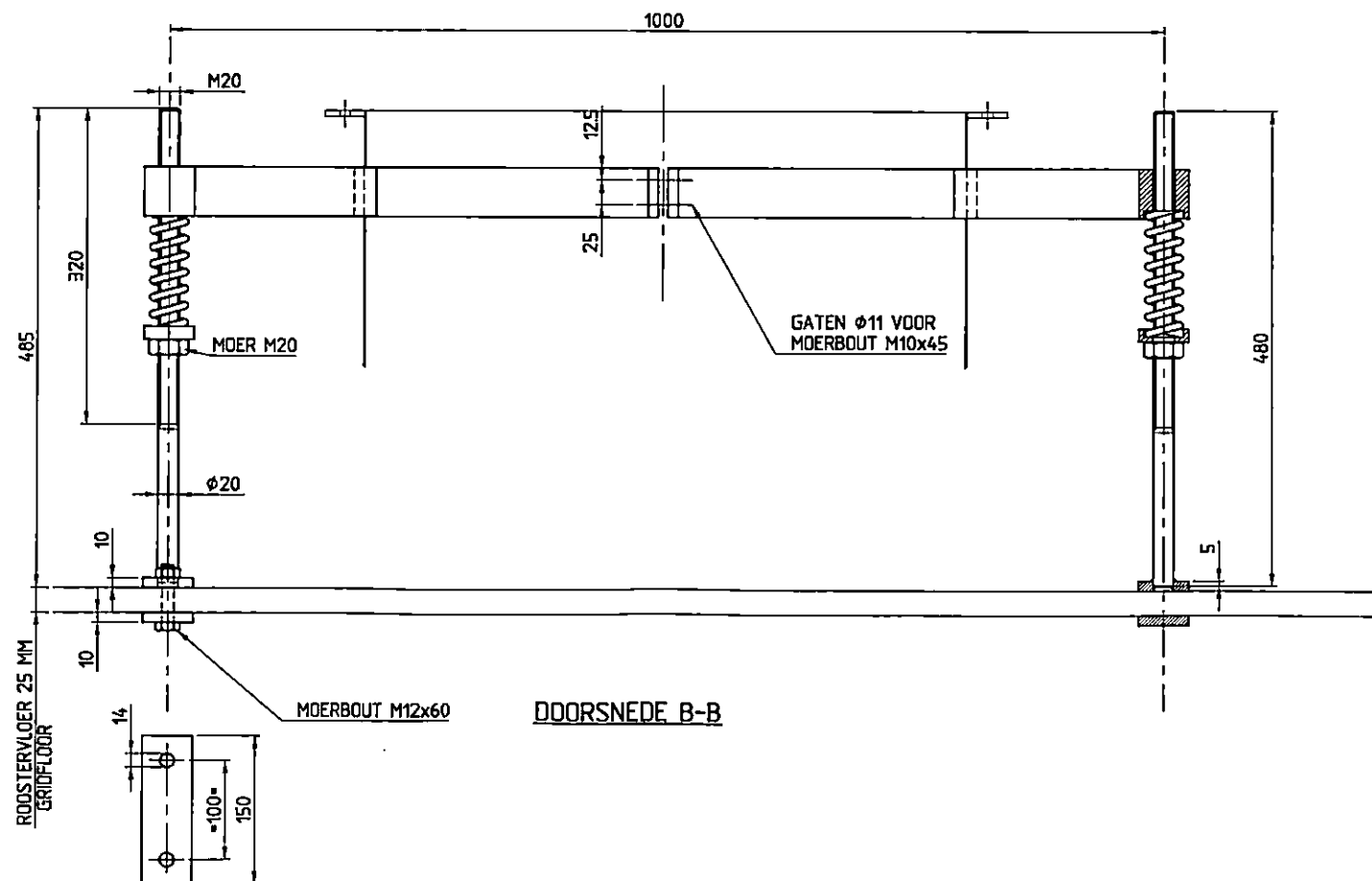
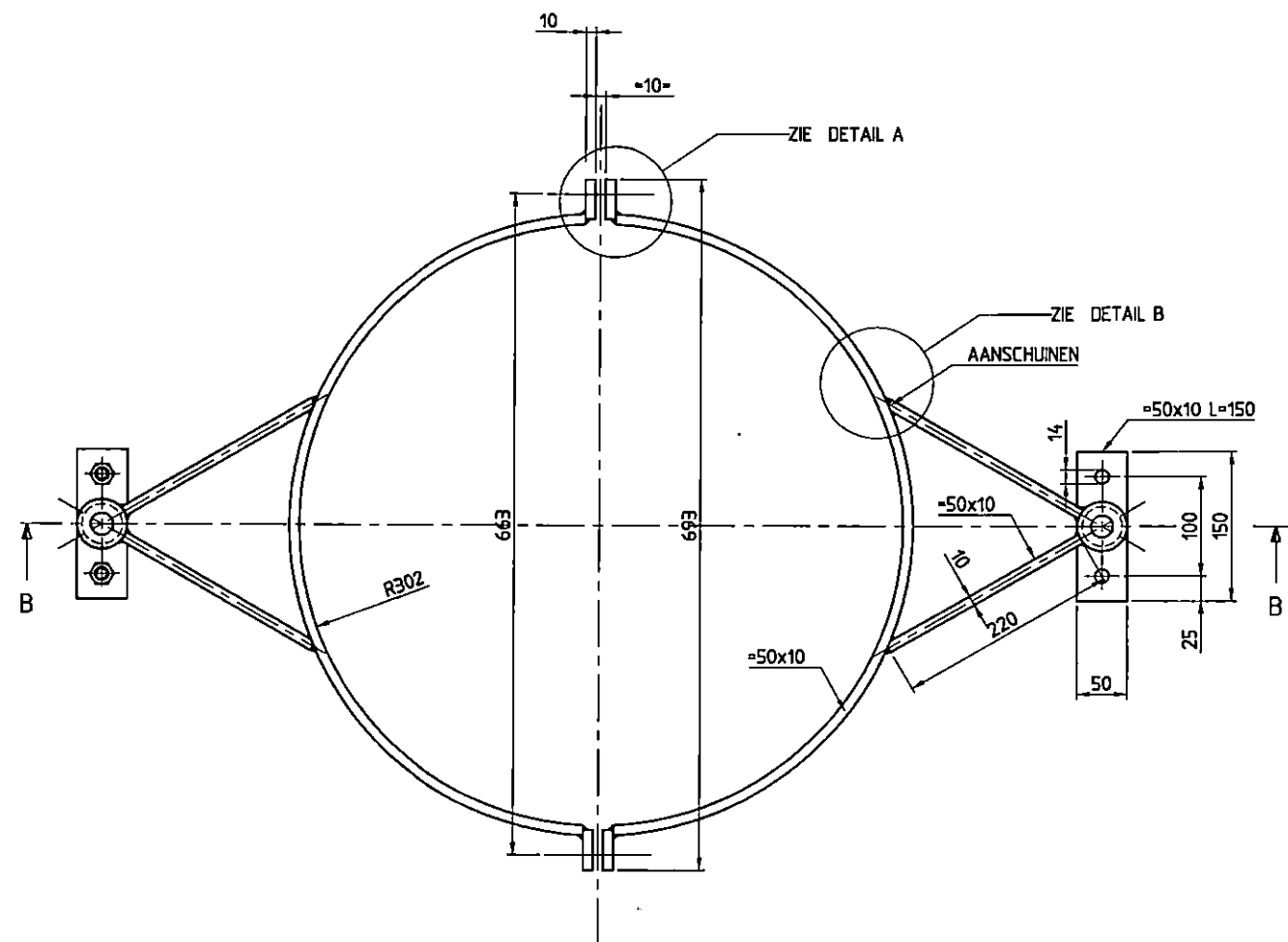
DOORSNEDE B-B  
SCHAAL 1:1

**MATERIAAL:** AISI 304  
LASSEN BEITSSEN EN PASSIVEREN  
DAAR WAAR MOGELIJK ONDERBROKEN SMELTLAS C.Q. ONDERBROKEN HOEKLAS  
1 X UITVOEREN  
FILTERMATERIAAL: TROX-O-FIL F701 (595x595x25) EENHEIDSPAKKING 20 STUKS  
GEWICHT: 18 KG

AANZICHT ACHTERPLAAT VOLGENS PIJL "P"

FACTORY :	COFFEE - SUFFOLK - USA		Sara Lee/DE Operations C&T division Manufacturing Technology	SIZE	A 3	CAD— file: T161915
PROCESS :	SPRAYDRYER					CODE: FUS.02.01.T1
PART :	FILTERBOX FOR COOLER/HEATER					PAGE: 1 OF 1
SCALE : 1:5	GROUP: 103					
AUT.: R. Wink	Date: Oct-12-01					





OPMERKING: MATERIAAL AISI 304  
LASSEN BEITSEN EN PASSIVEREN  
BEVESTIGINGSMATERIAAL AISI / A2  
1 x UITVOEREN  
GEWICHT: 24 KG

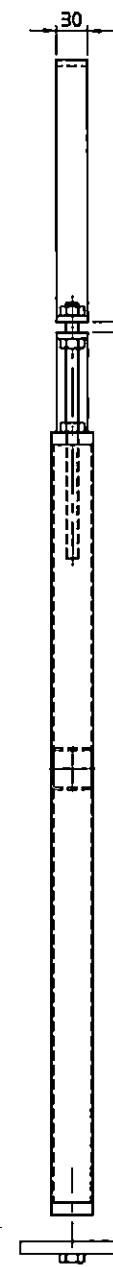
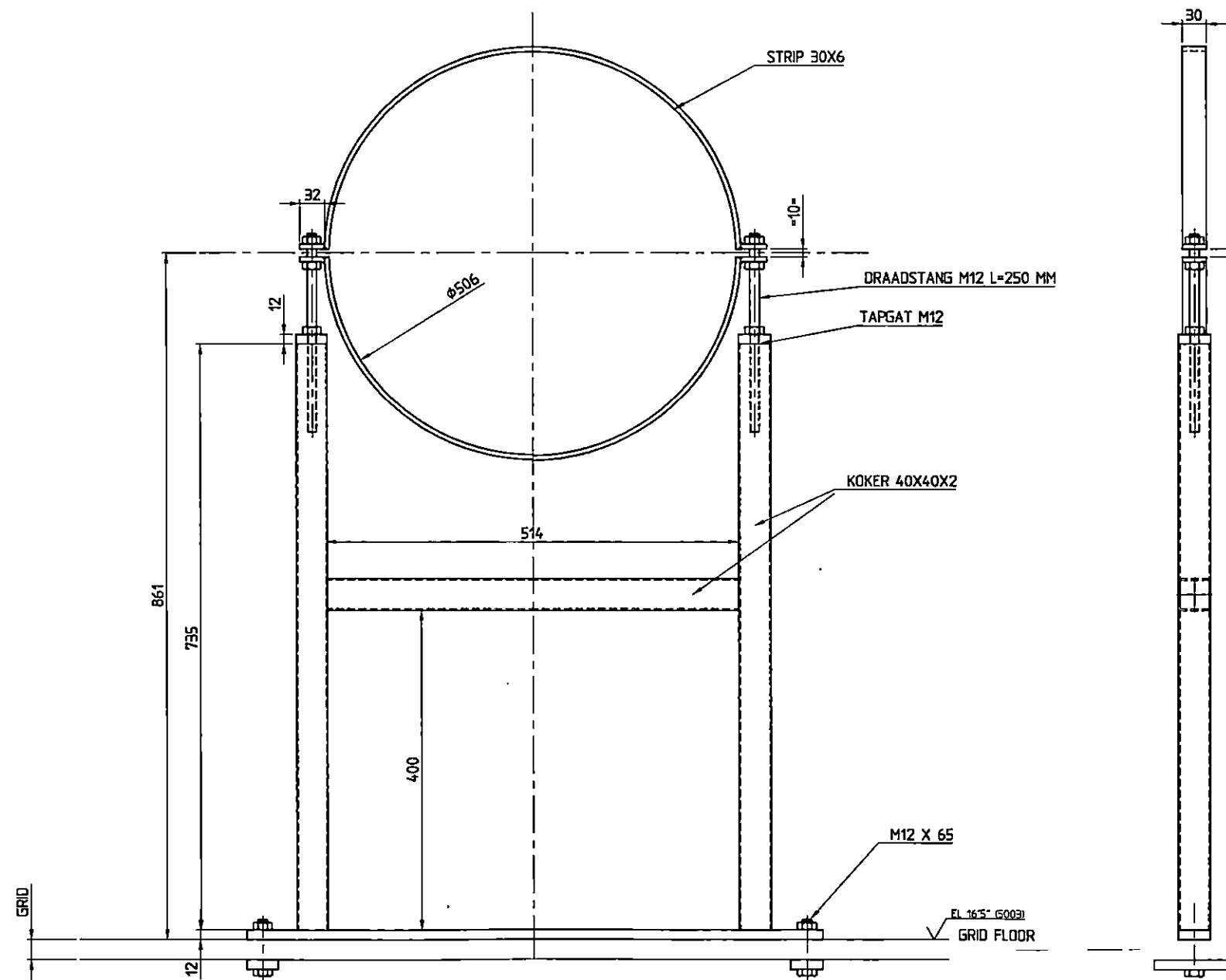
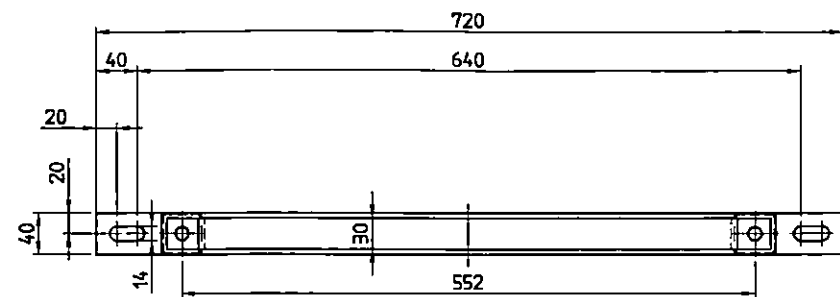
FACTORY : COFFEE - SUFFOLK - USA  
PROCESS : SPRAYDRYER  
PART : CLAMP FOR PIPE D=600

SCALE : 1:5  
AUT.: R. Wink


GROUP: 103  
Date: Oct-17-01

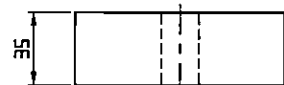
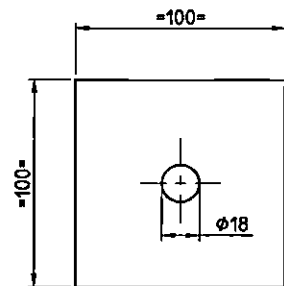
Sara Lee/DE  
Operations C&T division  
Manufacturing Technology

SIZE  
CAD-file: T161917  
CODE: FUS.02.01.T1

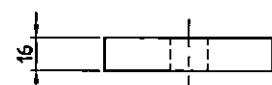
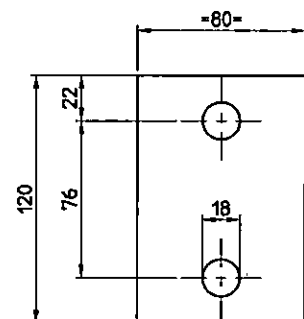


**OPMERKING:** MATERIAAL AISI 304  
LASSEN BEITSEN EN PASSIVEREN  
AANTAL 1 STUK  
GEWICHT: 15 KG

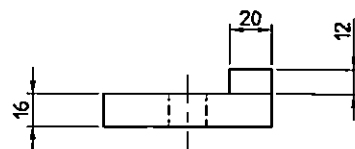
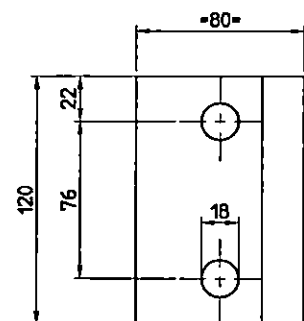
FACTORY :	COFFEE - SUFFOLK - USA	 <b>Sara Lee/DE</b> Operations C&T division Manufacturing Technology	SIZE	CAD-file: T161922
PROCESS :	SPRAYDRYER			CODE: FUS.02.00.T1
PART :	SUPPORT OF PIPE D=500			PAGE: 1
SCALE : 5	GROUP: 103			
AUT.: R. Wink	Date: Aug-21-01			
CHK.: J.W.	Date:			



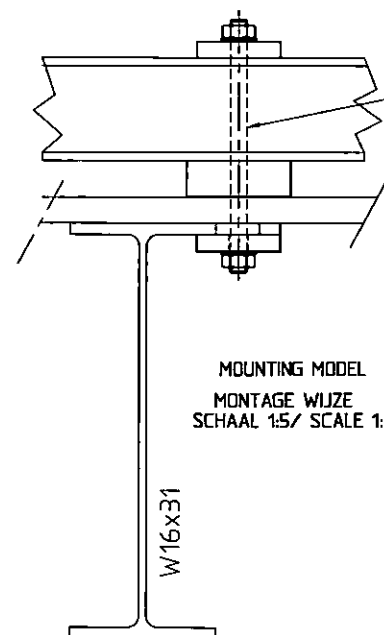
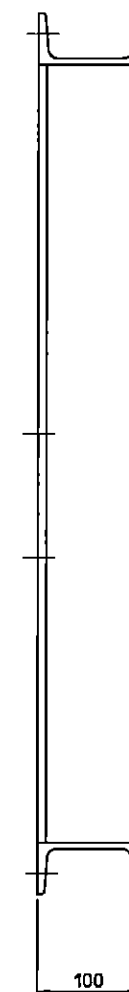
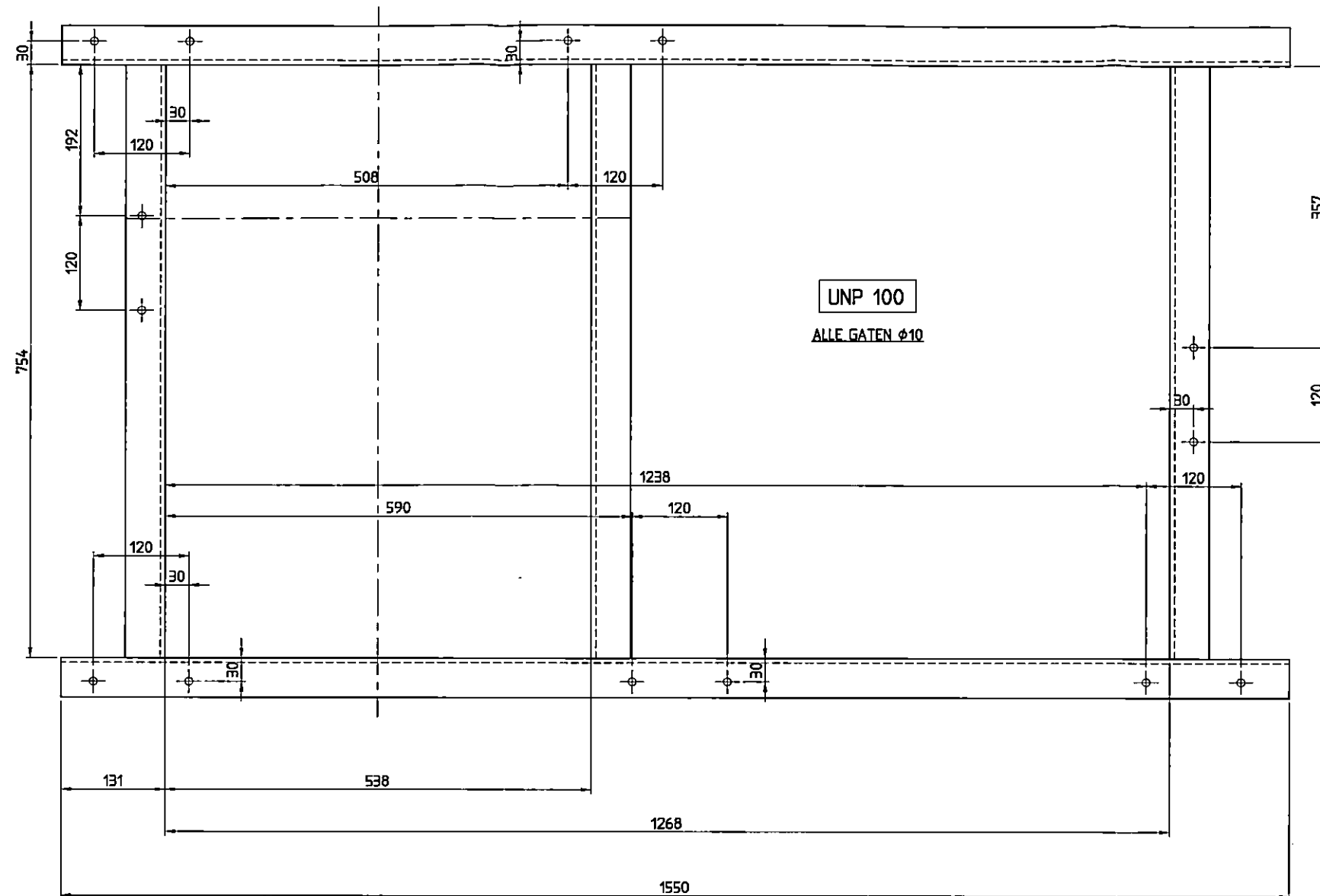
AANTAL 4 STUKS  
HARDHOUT/HARDWOOD  
SCHAAL 1:2,5/ SCALE 1:2,5



AANTAL 4 STUKS  
SCHAAL 1:2,5/ SCALE 1:2,5



AANTAL 4 STUKS  
SCHAAL 1:2,5/ SCALE 1:2,5




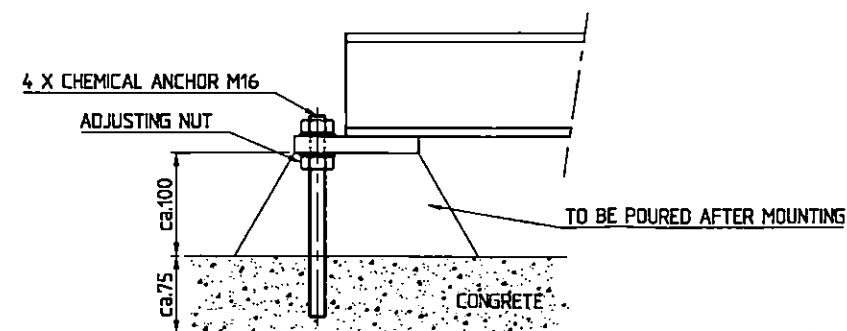
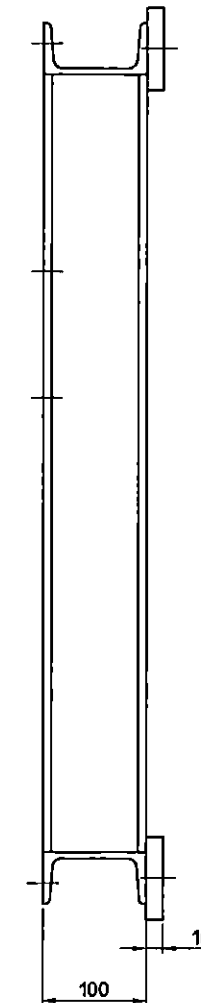
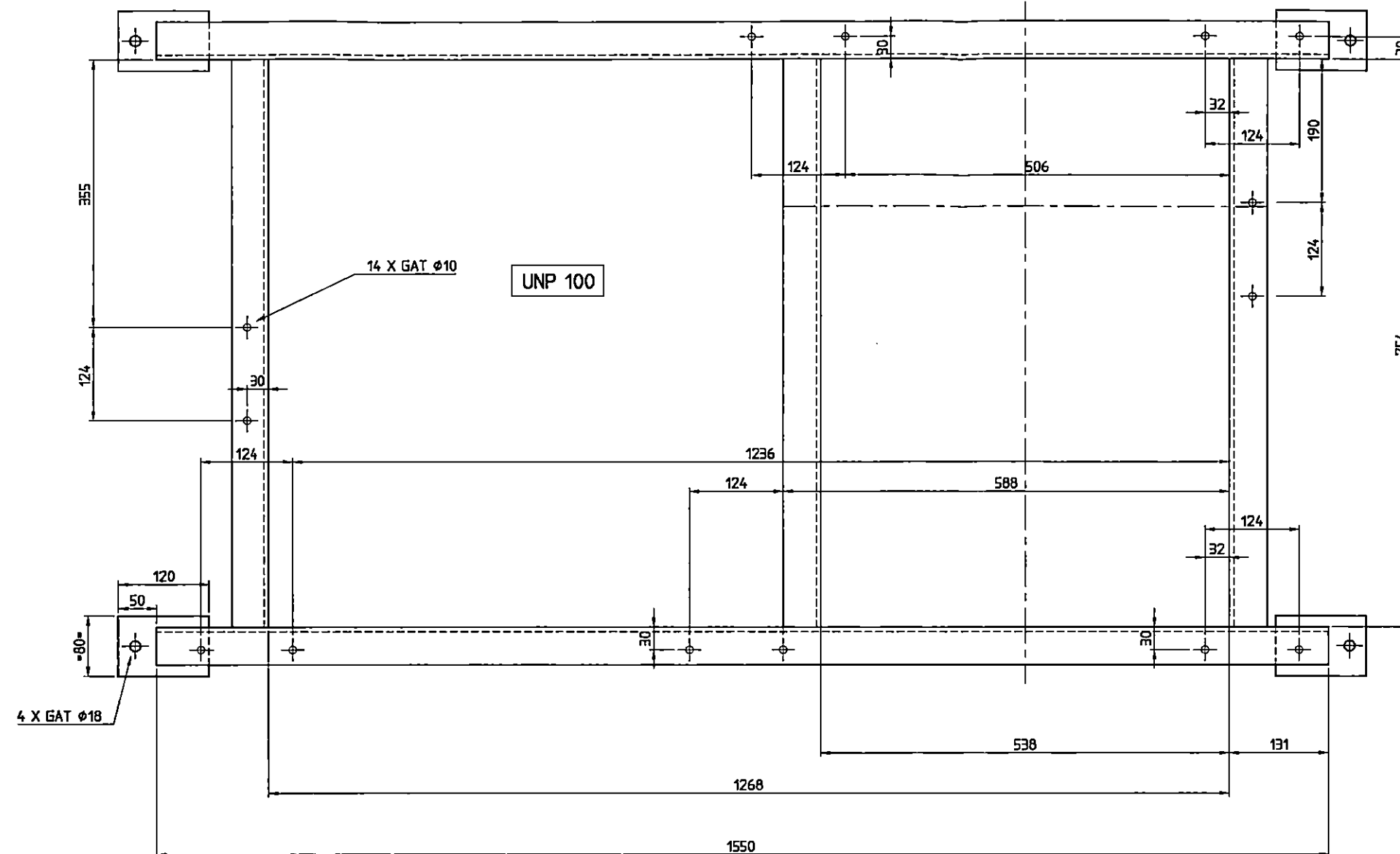
8XDRAADEIND\*16XMOER\*16XONDERLEGRING M16 L=250 ST. VERZ.  
8XTHREADED ROD\*16XNUT\*16XWASHER M16 L=250 STEEL ZINC PLATED

MOUNTING MODEL  
MONTAGE WIJZE  
SCHAAL 1:5/ SCALE 1:5

#### OPMERKING:/NOTE

VLOERFRAME T.B.V. VENTILATOR (FIF) VAN TEK. T161920 /FRAME OF FAN (FIF) DRW.T161920  
MILD STEEL , SHOTBLASTED SA2,5 AND GALVANIZED  
1 X UITVOEREN  
GEWICHT: 60 KG.

FACTORY :	COFFEE - SUFFOLK - USA		Sara Lee/DE Operations C&T division Manufacturing Technology	SIZE A C	CAD—file: T161923 CODE: MN30897
PROCESS :	SPRAYDRYER				
PART :	FRAME UNDER FAN OF AIR INLET				
SCALE : 1:5	GROUP: 103				
AUT.: R. Wink	Date: 29-08-'01				



**OPMERKING:** VLDERFRAME T.B.V. VENTILATOR (FIF) VAN TEK. T161921 /FRAME OF FAN (DOF) DRW.T161921  
MILD STEEL , SHOTBLASTED SA2.5 AND GALVANIZED  
1 X UITVOEREN  
GEWICHT: 60 KG.

FACTORY :	COFFEE -- SUFFOLK -- USA		SIZE	CAD--file: T161924
PROCESS :	SPRAYDRYER			
PART :	FRAME UNDER FAN OF AIR OUTLET			
SCALE : 1:5	GROUP: 103			
AUT.: R. Wink	Date: Nov-29-01	<div>Sara Lee/DE Operations C&amp;I division Manufacturing Technology</div>		



PROCESS : SPRAYDRYER

Aut. : R.Wink

CAD-file: T161927

Code: FUS.02.00.T1

Page: 2 of : 2

## PARTS LIST

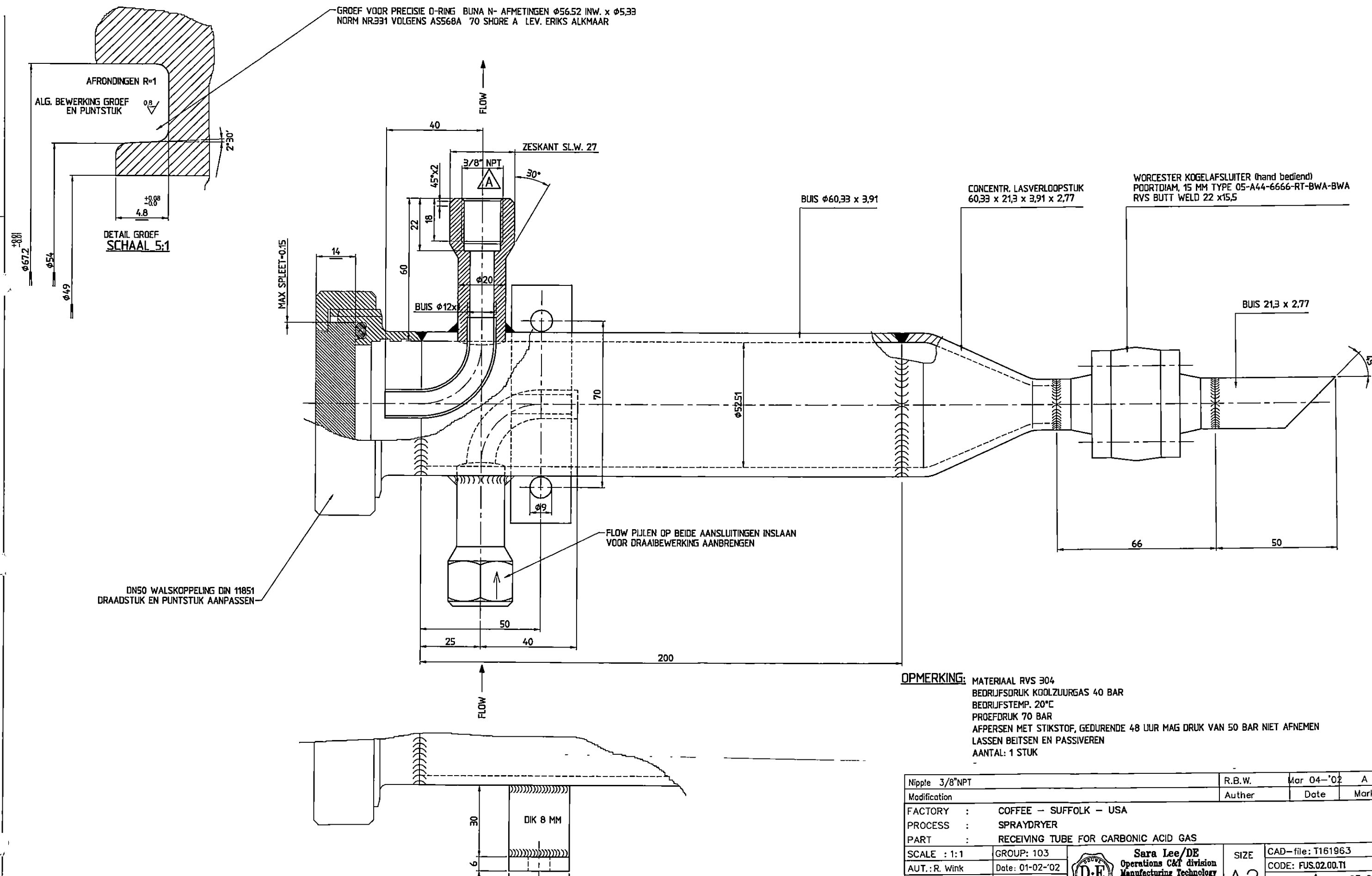
PART : INJECTOR CARBONIC ACID GAS

Ass. draw. nr.:

Drawing nr: 161927

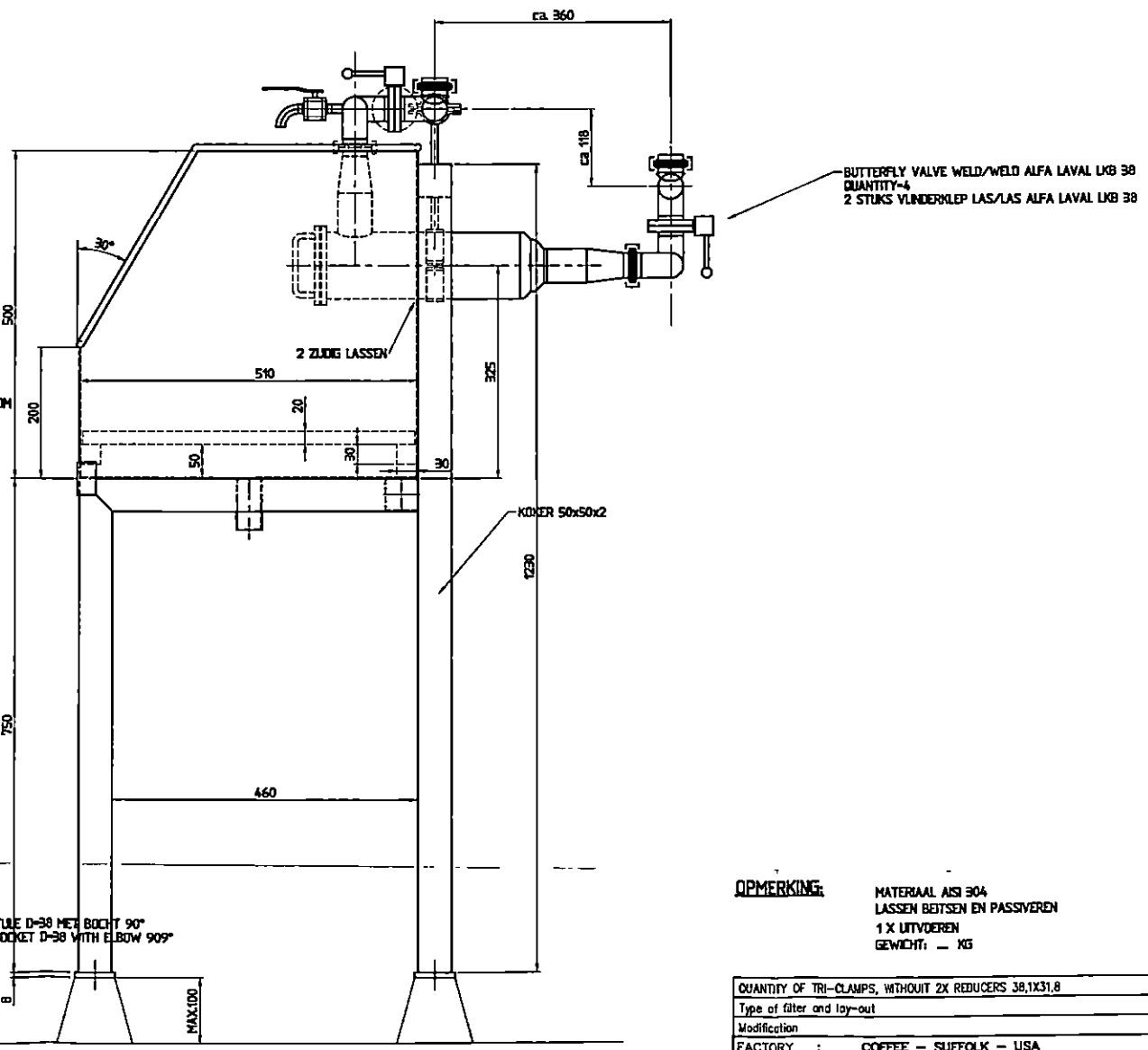
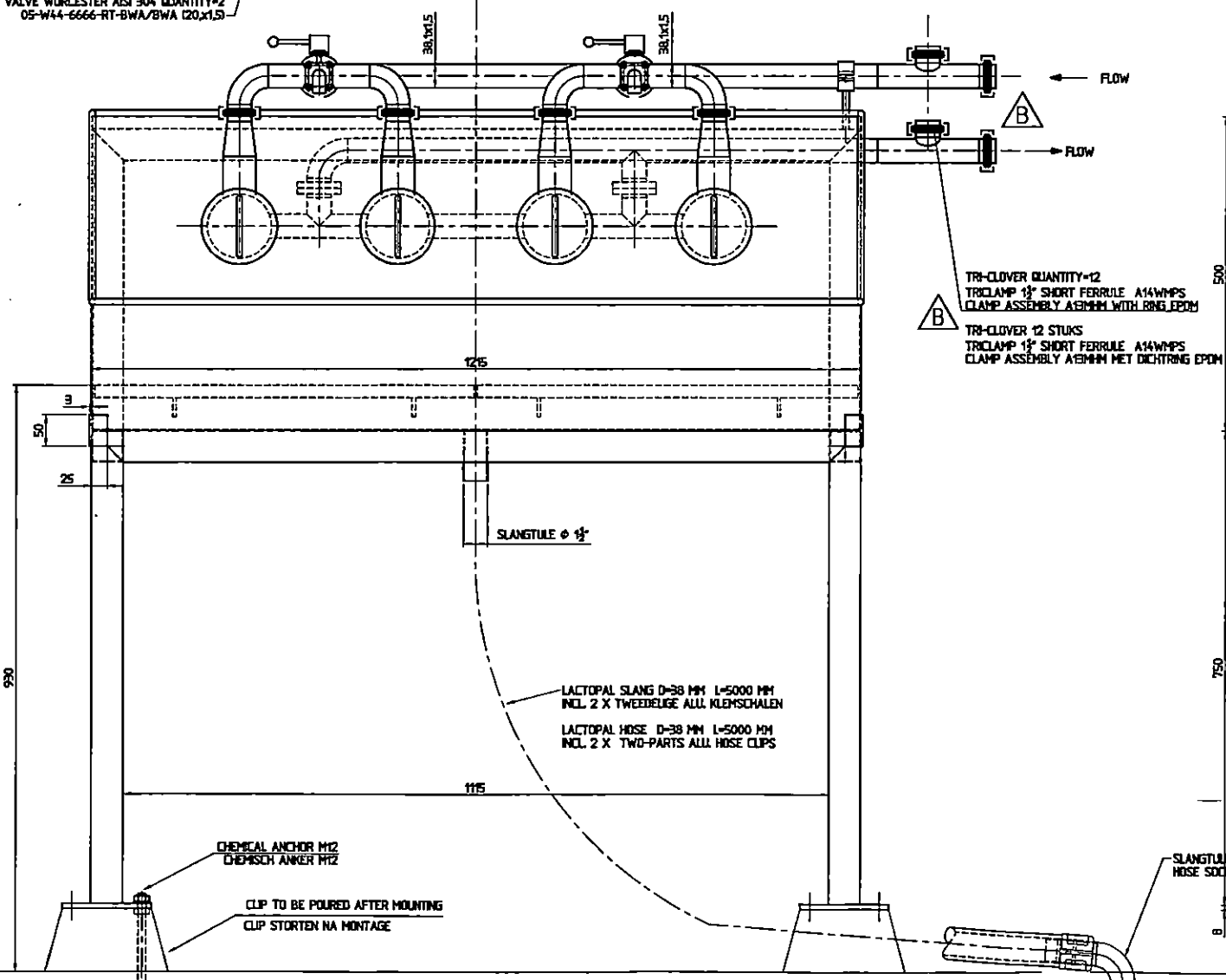
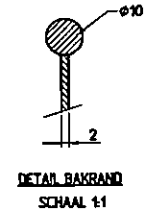
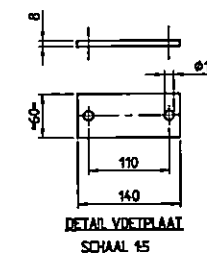
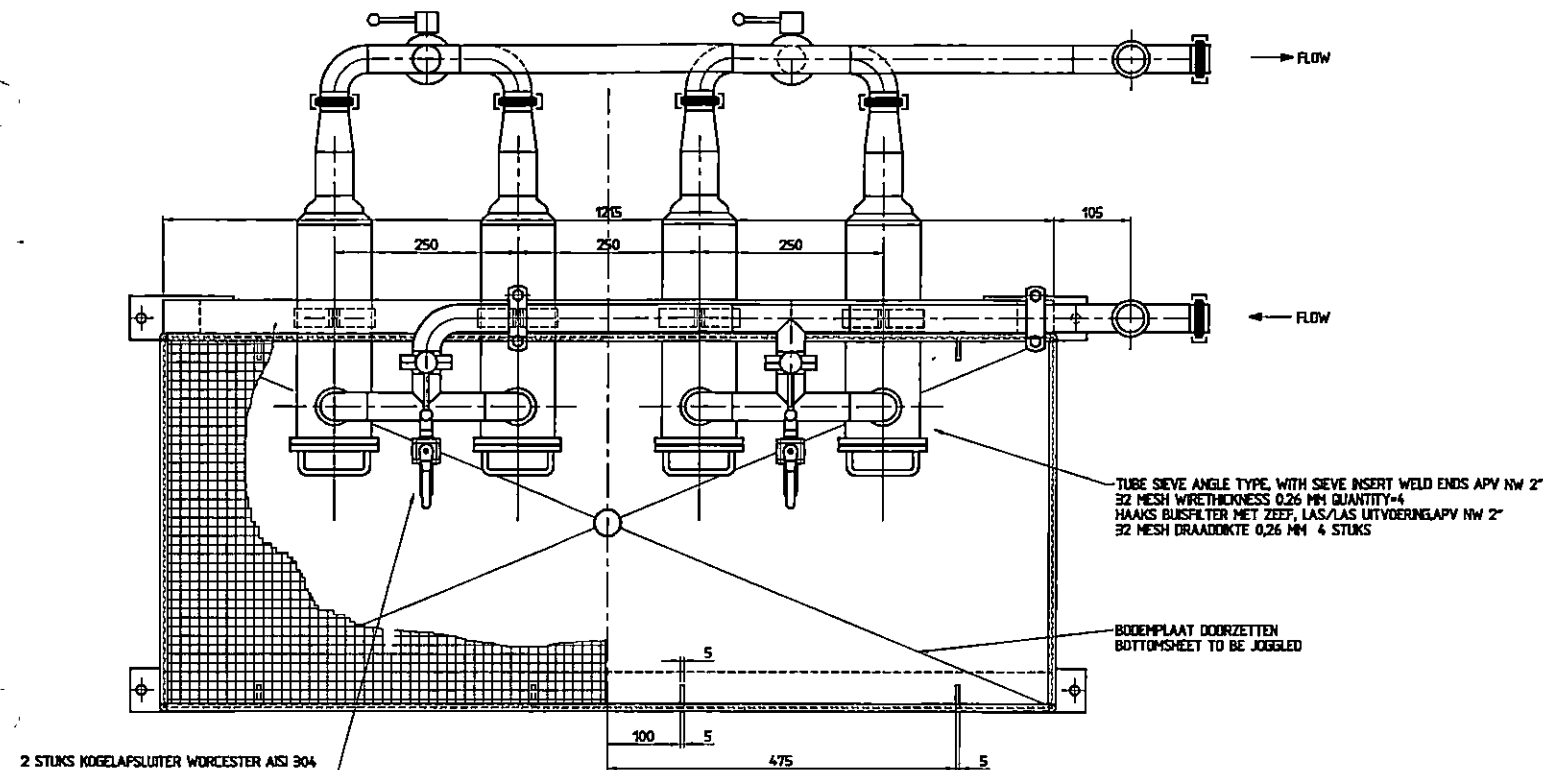
[illegible]





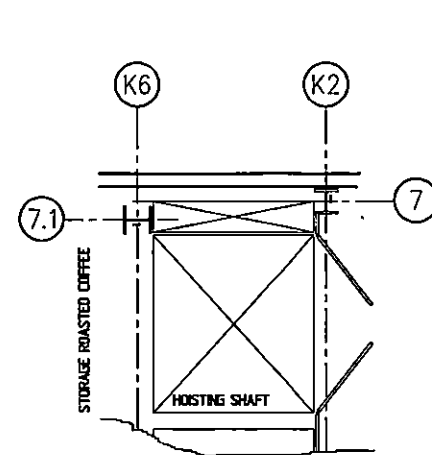
**OPMERKING:** MATERIAAL RVS 304  
 BEDRIJFSDRUK Koolzuurgas 40 BAR  
 BEDRIJFSTEMP. 20°C  
 PROEFDruk 70 BAR  
 AFWERKEN MET STIKSTOF, GEDURENDE 48 UUR MAG DRUK VAN 50 BAR NIET AFNEMEN  
 LASSEN BEITSEN EN PASSIVEREN  
 AANTAL: 1 STUK

Nipple 3/8"NPT		R.B.W.	Mar 04-'02	A
Modification		Author	Date	Mark
FACTORY : COFFEE - SUFFOLK - USA				
PROCESS : SPRAYDRYER				
PART : RECEIVING TUBE FOR CARBONIC ACID GAS				
SCALE : 1:1	GROUP: 103			
AUT.: R. Wink	Date: 01-02-'02			
		SIZE	CAD-file: T161963	
			CODE: FUS.02.00.T1	

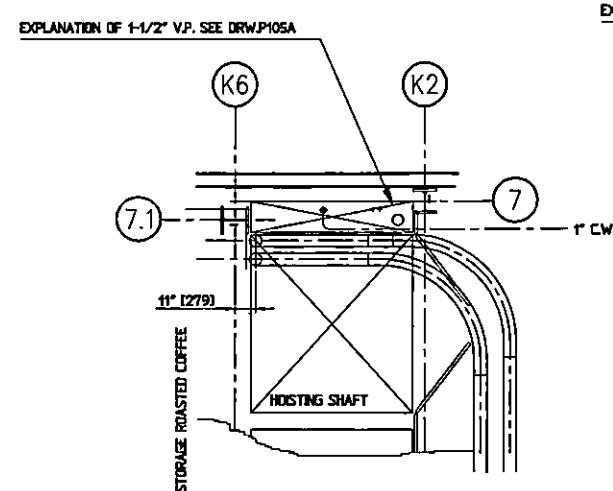


OPMERKING: MATERIAAL AISI 304  
LASSEN BEITSSEN EN PASSIVEREN  
1 X UITVOEREN  
GEWICHT: — KG

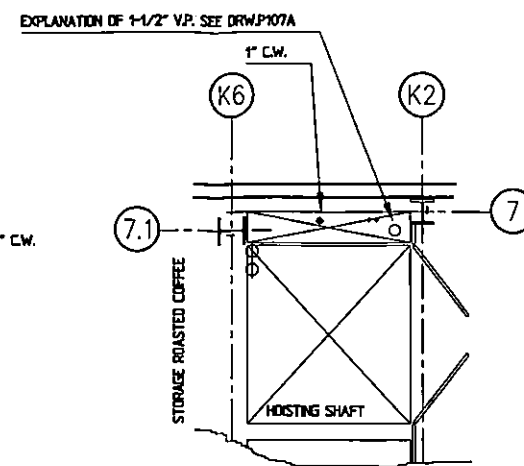
QUANTITY OF TRI-CLAMPS, WITHOUT 2X REDUCERS 38,1X31,8	r.b.w.	Mar 26-02	B
Type of filter and lay-out	r.b.w.	Mar 12-02	A
Modification	Author	Date	Mark
FACTORY : COFFEE - SUFFOLK - USA			
PROCESS : LIPS			
PART : EXTRACT FILTERUNIT SPRAY-DRYER			
SCALE : 1:5	GROUP: 103	Sara Lee/DE	CAD-file: T163191



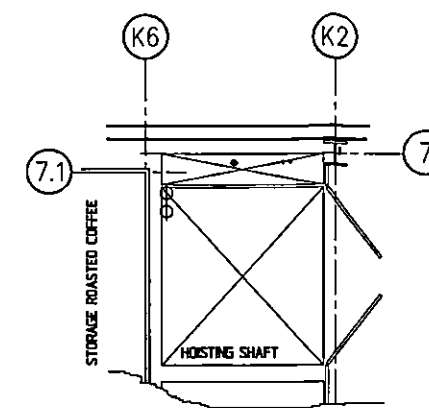
ELEVATION 0'00



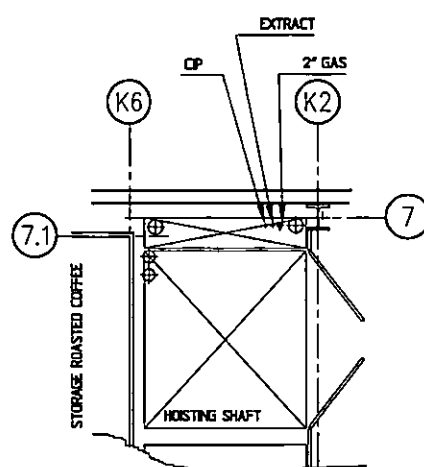
ELEVATION 16'-5"



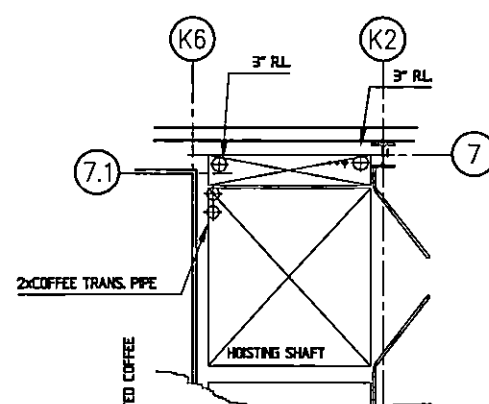
ELEVATION 36'



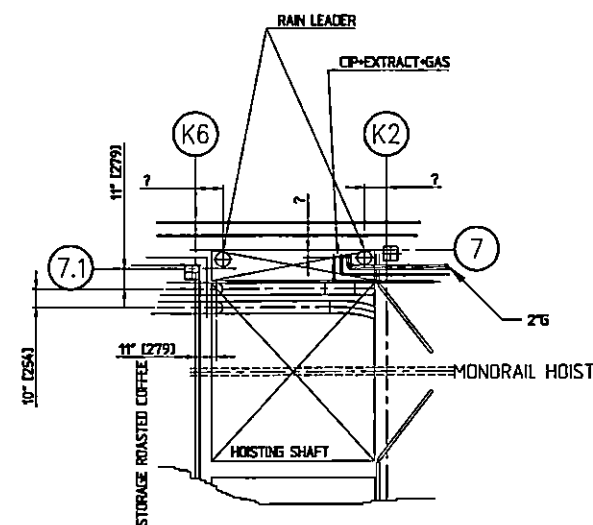
ELEVATION 46'-7"



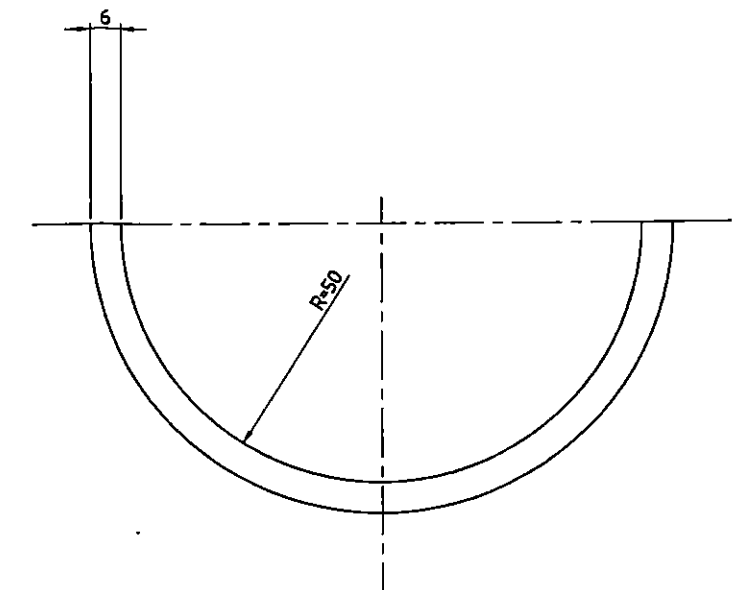
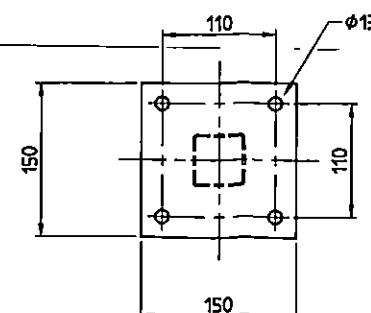
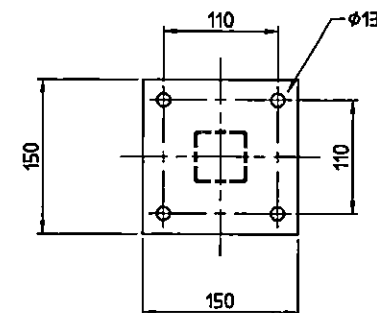
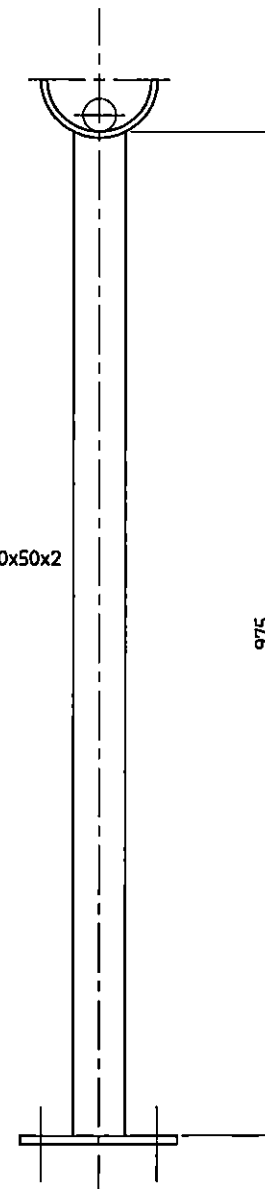
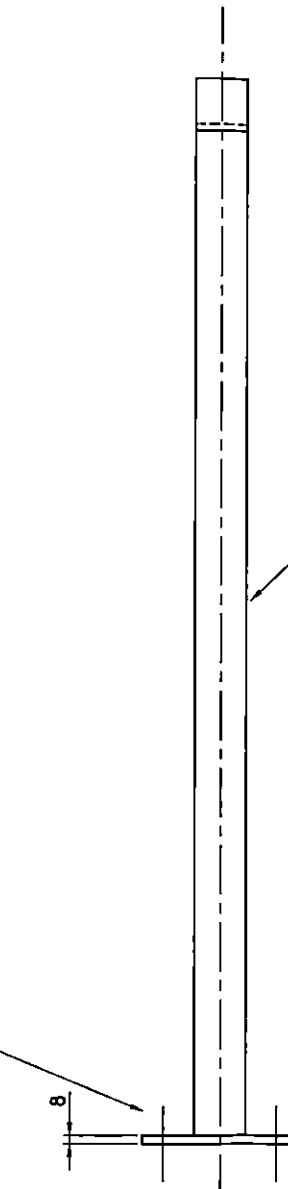
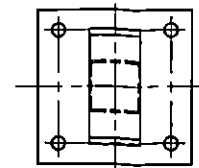
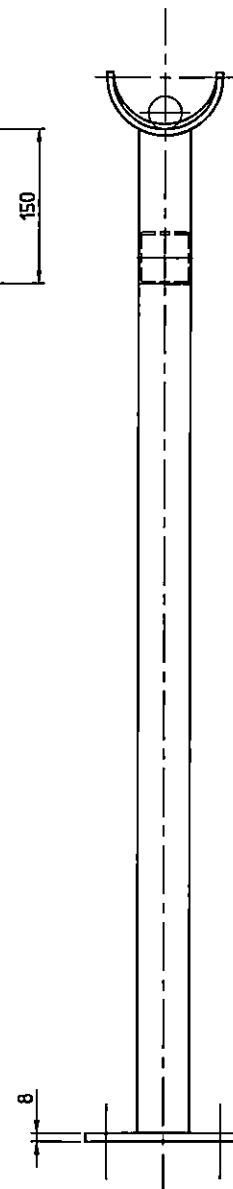
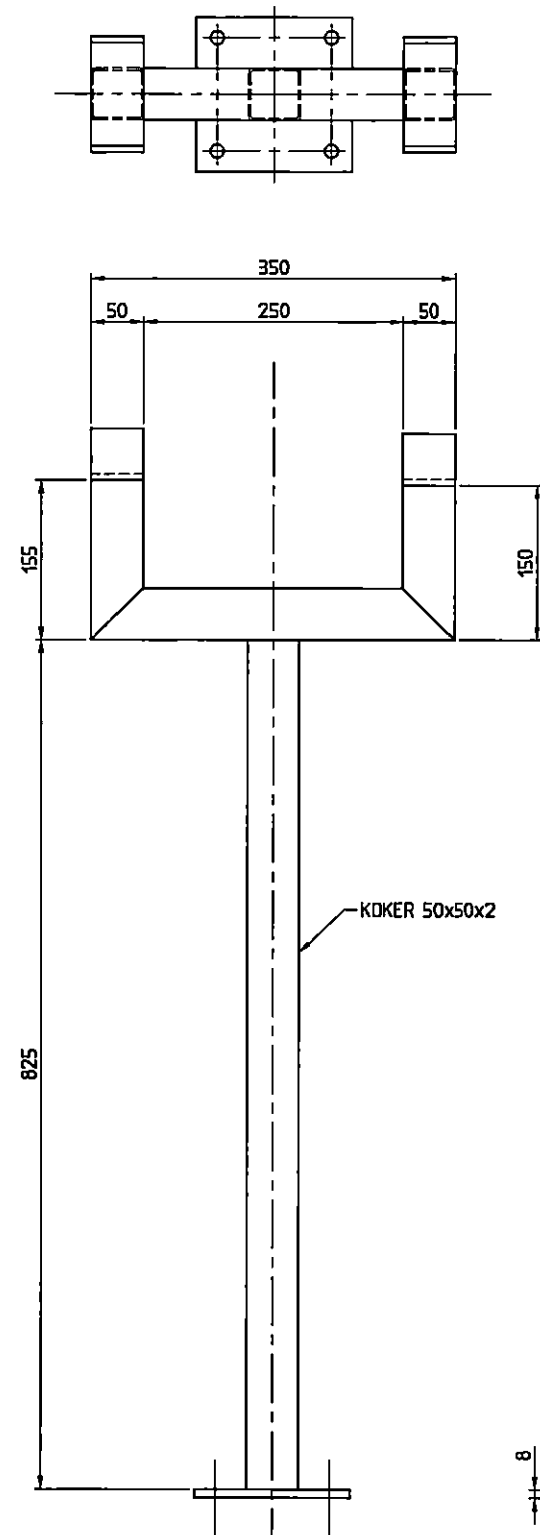
ELEVATION 74'



ELEVATION 85'




ELEVATION 95'

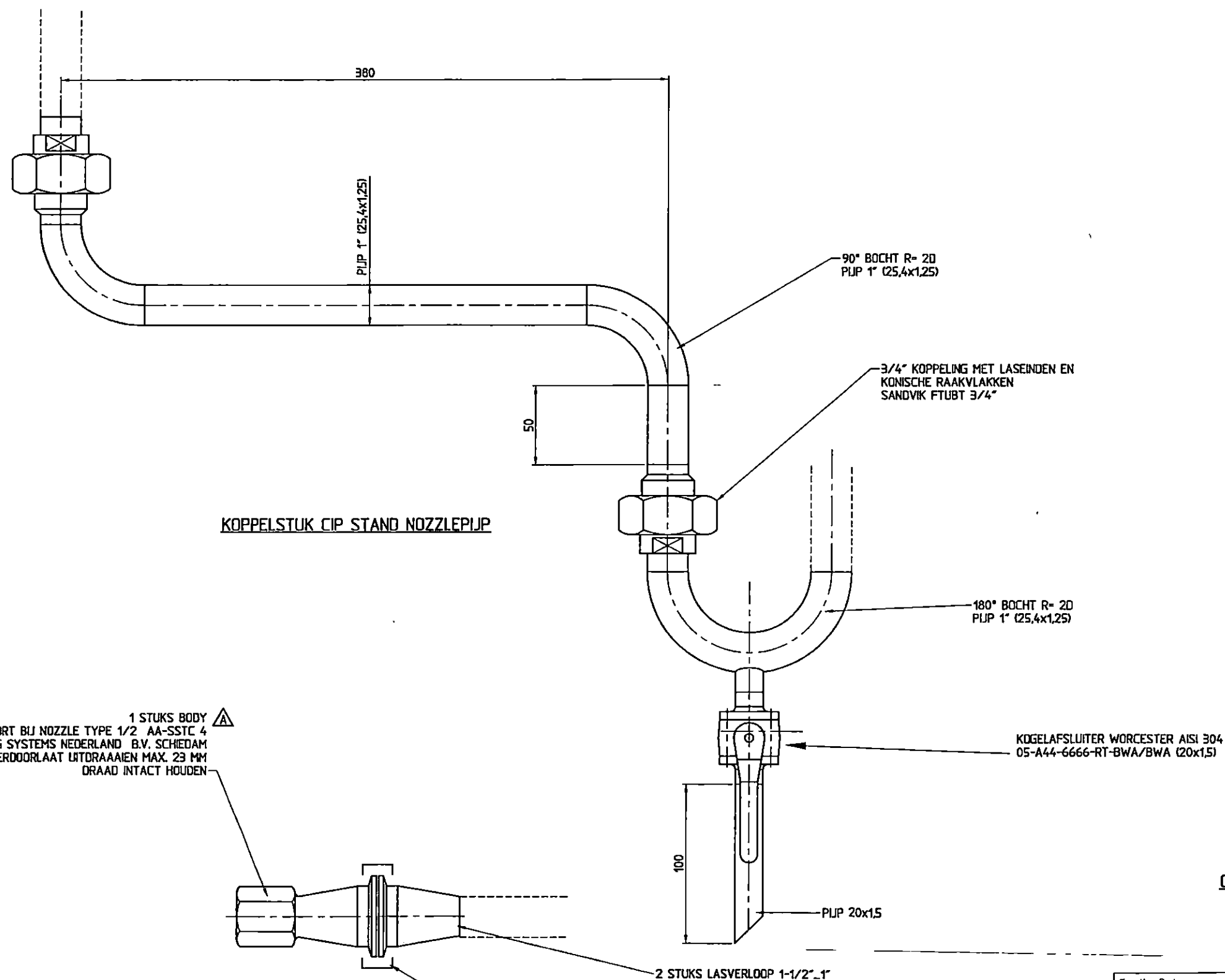


DETAIL OPLEGPUNT


SCHAAL 1:1

OPMERKING: MATERIAAL: AISI304  
LASSEN BEITSSEN EN PASSIVEREN  
AANTAL 1 STUKS  
GEWICHT: 8 KG

FACTORY :	COFFEE - SUFFOLK - USA	 <b>Sara Lee/DE</b> Operations C&T division Manufacturing Technology	SIZE	CAD-file: T163223
PROCESS :	SPRAYDRYER			
PART :	SUPPORT BRACKETS NOZZLE PIPE			
SCALE : 1:5	GROUP: 103			
AUT.: R. Wink	Date: 27-02-'02			
				CODE: FUS.02.00.T1



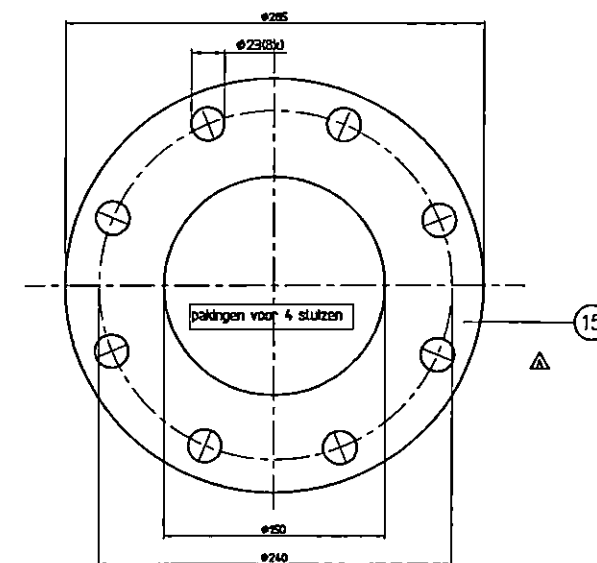
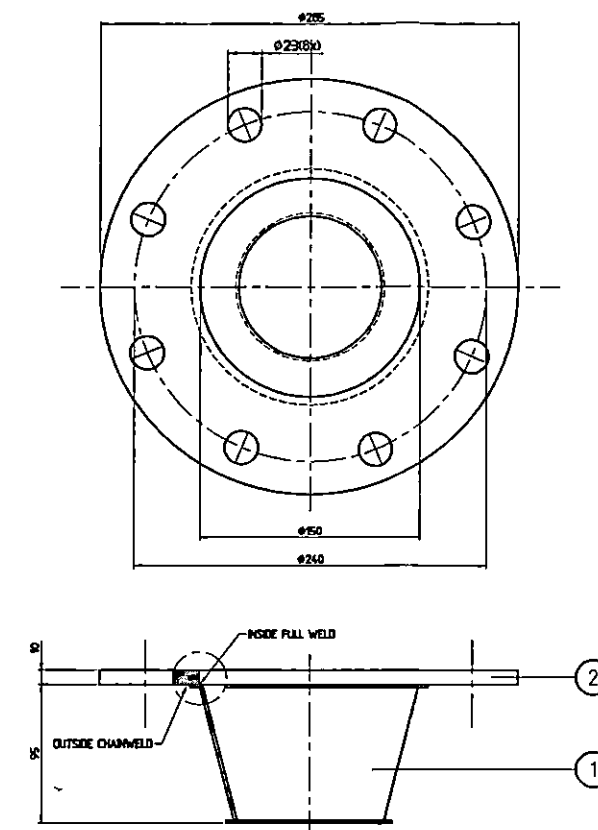
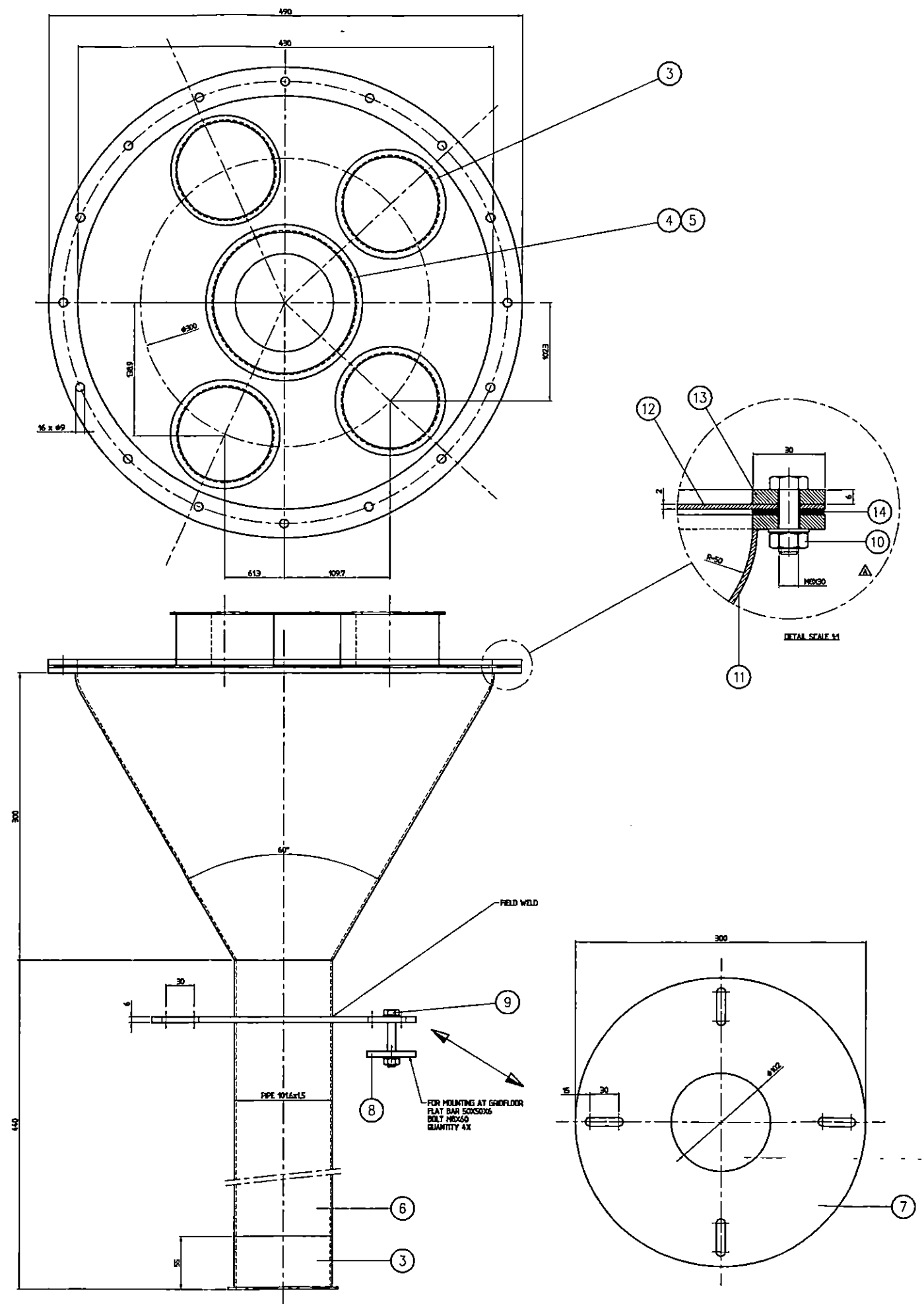
**OPMERKING:** MATERIAAL: AISI 304  
LASSEN BEITSEN EN PASSIVEREN  
GEWICHT 2 KG

Coupling Body		RB.W.	26-8-'02	A
Modification		Author	Date	Mark
FACTORY	COFFEE -- SUFFOLK -- USA			
PROCESS	SPRAYDRYER			
PART	COUPLINGPIPES NOZZLE PIPE			
SCALE : 1:2	GROUP: 103	 <b>Sara Lee/DE</b> Operations C&T division Manufacturing Technology		
AUT.: R. Wink	Date: 27-02-'02			
		SIZE	CAD-file: T163224	
			CODE: FUS.02.00.T1	

**KOPPELSTUK CIP STAND NOZZLEPIJP**

TRI-CLOVER KOPPELING  
TRICLAMP 1½" SHORT FERRULE A14WMPs  
CLAMP ASSEMBLY A13M11M MET DICHTRING EPDM





**NOTE:** FLOOR PENETRATION SEE DRAWING T162026  
ALL MATERIALS AISI 304 FINISH 2B  
LENGTH OF PIPES DEFINED IN FIELD  
FINISHING ALL WELDS TO BE PICKLED AND PASSIVATED  
QUANTITY 1x

Pos nrs. + pakking omschrijving	RBW	29-5-02	A
Modification	Author	Date	Mark
FACTORY : COFFEE - SUFFOLK - USA			
PROCESS : SPRAYDRYER			
PART : COLLECTION PIPE MULTICYCLONE			
SCALE : 1:2,5	GROUP: 103	Sara Lee/DX	CAD-file: T163258



PROCESDEEL: SPRAYDRYER

ONDERDEEL : COLLECTIONPIPE MULTICYCLONE

Get. : R.B.W.

d.d. : 8-3-'02

Samenst.tek.nr.:

CAD-file: T163258

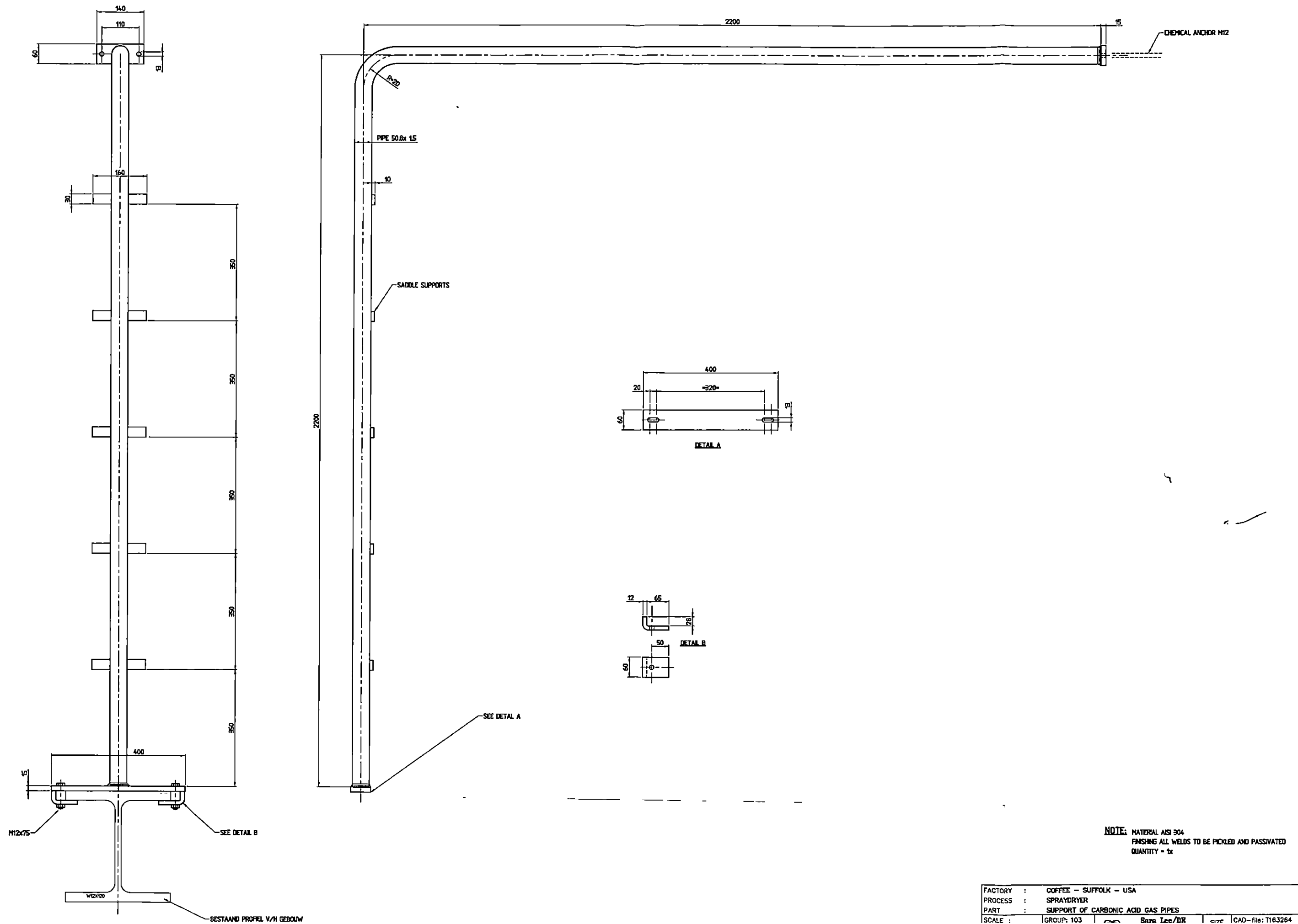
Code : FUS.00.02.T1

Blad : 2 van: 2

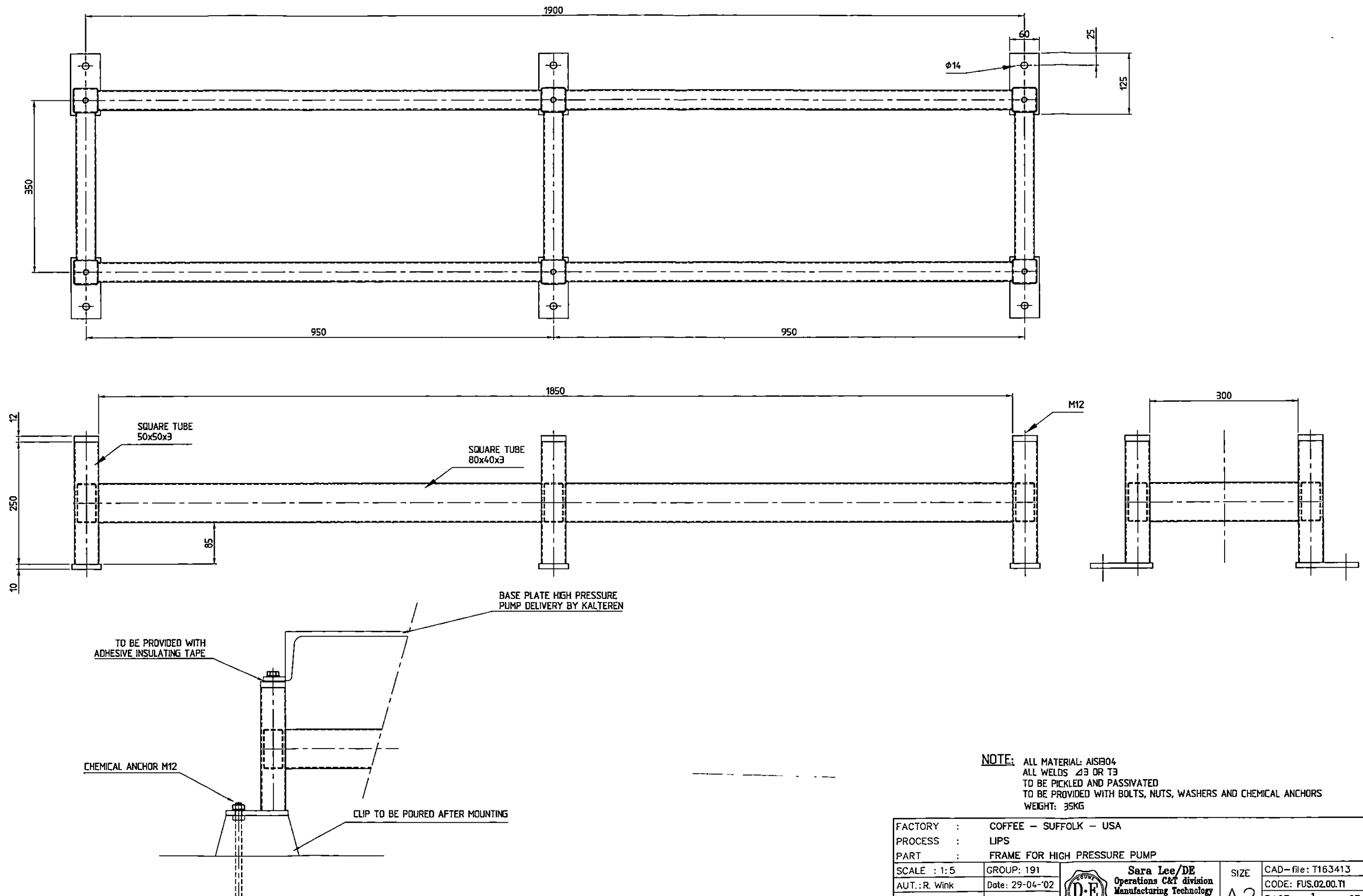
Rangsch.nr.: 163268

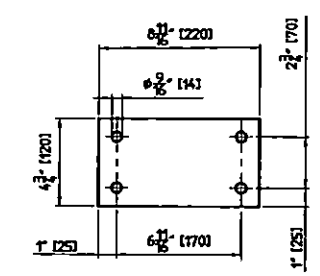
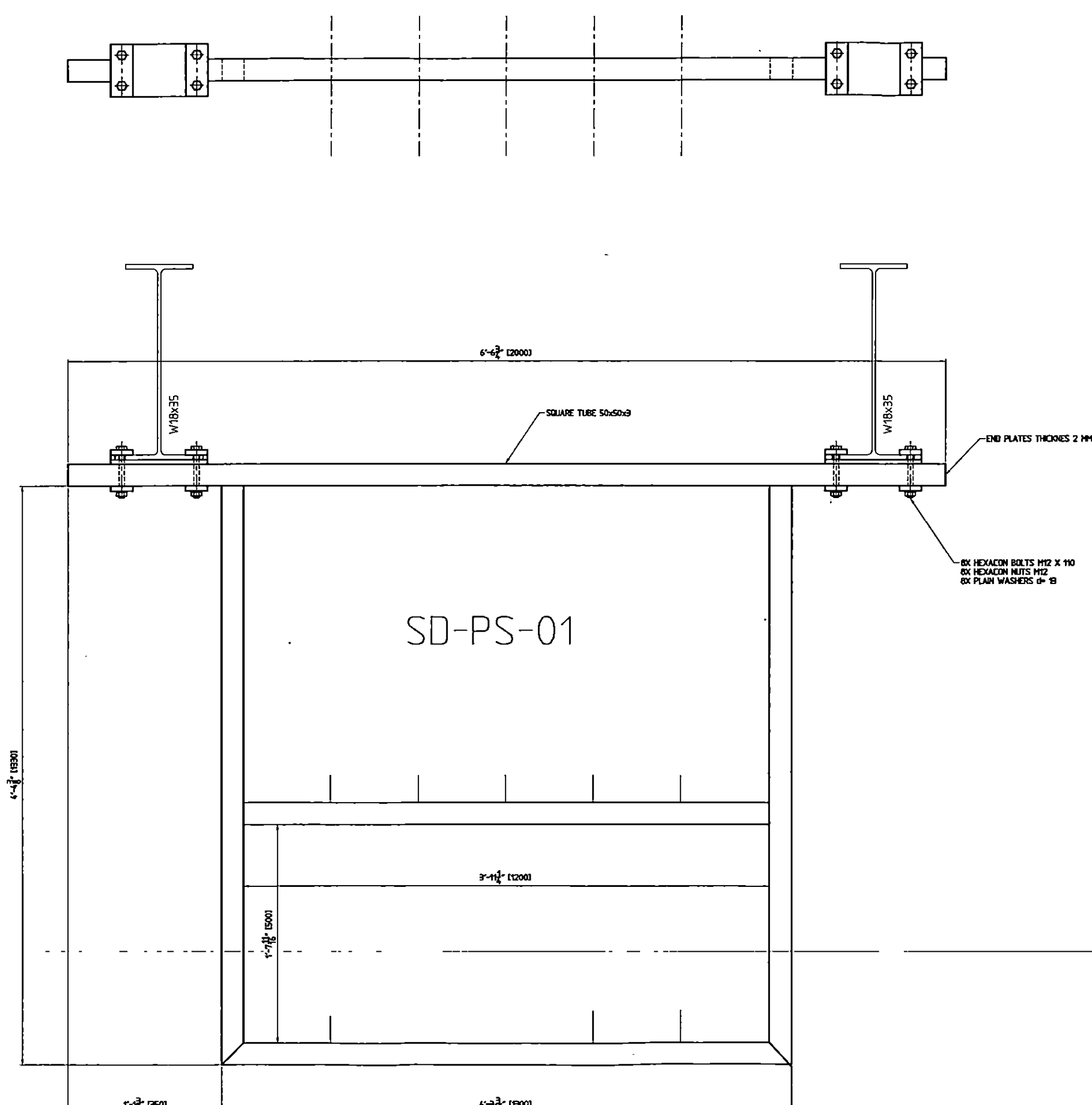
## STUKLIJST

[illegible]

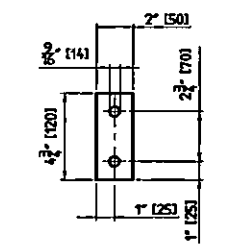




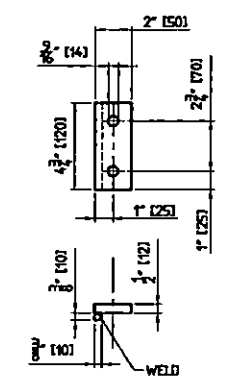




THICKNES 12 MM  
QUANTITY - 2



THICKNES 12 MM  
QUANTITY - 4

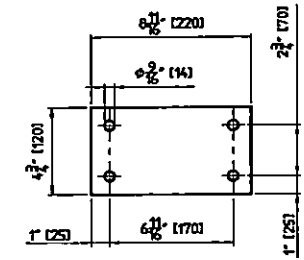
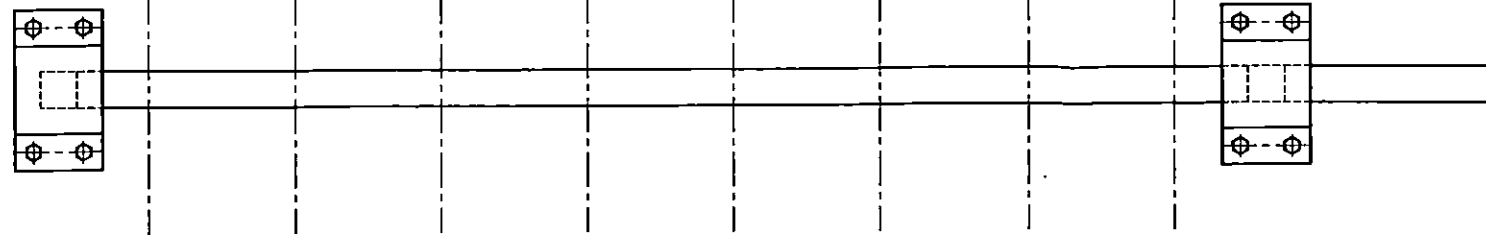


QUANTITY - 4

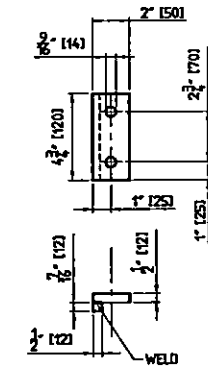
NOTE: ALL MATERIAL AISI 304  
WELDS TO BE PICKLED AND PASSIVATED  
TOTAL QUANTITY = 4 SUPPORTS  
WEIGHT PER SUPPORT = 40KG

FACTORY :	COFFEE SUFFOLK
PROCESS :	SPRAYDRYER
PART :	PIPE SUPPORT SD-PS-01
SCALE :	1:50
GROUP :	195
Rev :	1.00
Drawn by :	YJR
CAD :	File: T1R0022

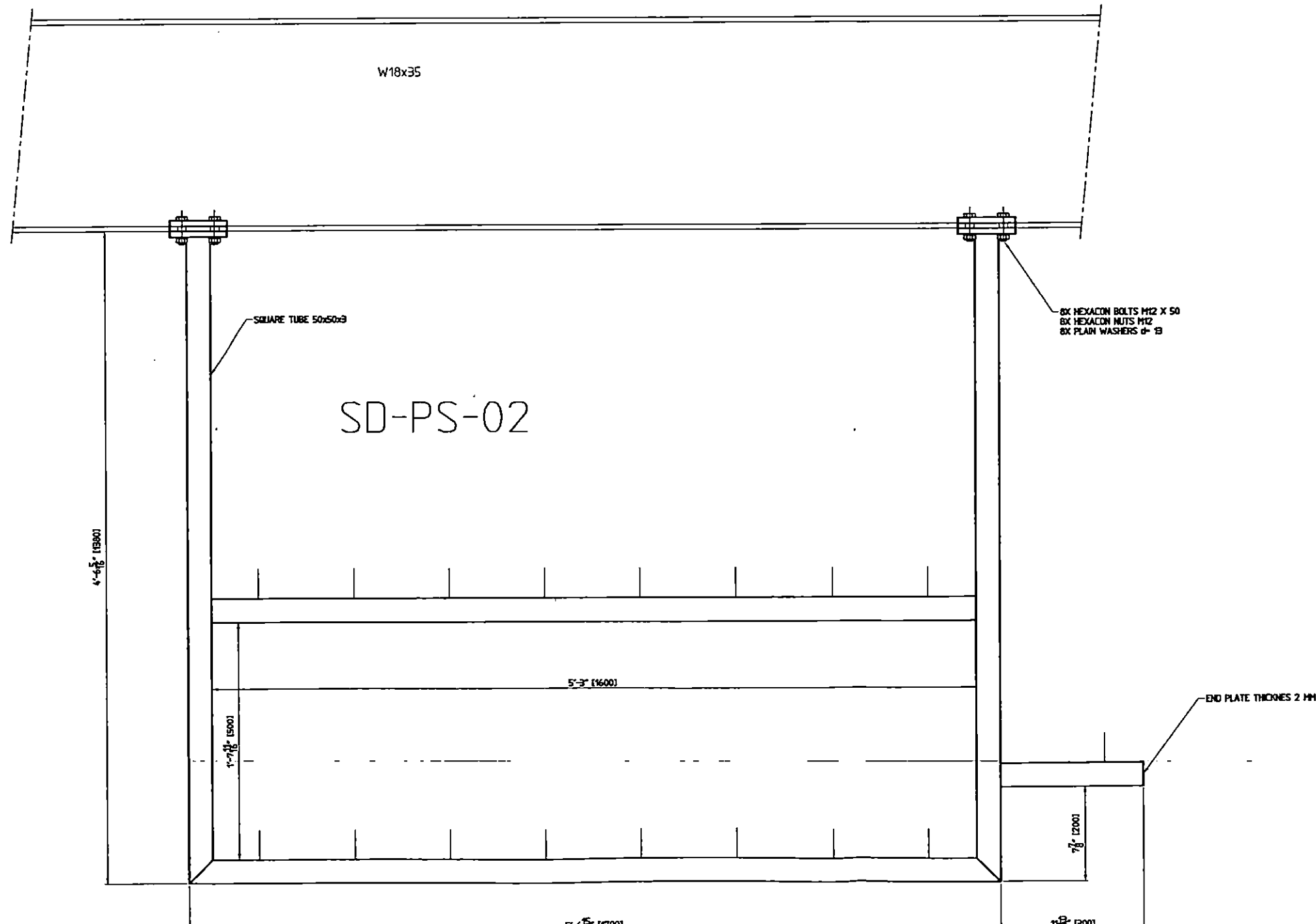




THICKNES 12 MM  
QUANTITY = 2



QUANTITY = 4



**NOTE:** ALL MATERIALS AISI 304  
WELDS TO BE PICKLED AND PASSIVATED  
TOTAL QUANTITY = 4 SUPPORTS  
WEIGHT PER SUPPORT = 40 KG

FACTORY :	COFFEE SUFFOLK
PROCESS :	SPRAYDRYER
PART :	PIPE SUPPORT SD-PS-02
DATE :	12/01/2015
BY :	12/01/2015
APP :	12/01/2015
REV :	12/01/2015

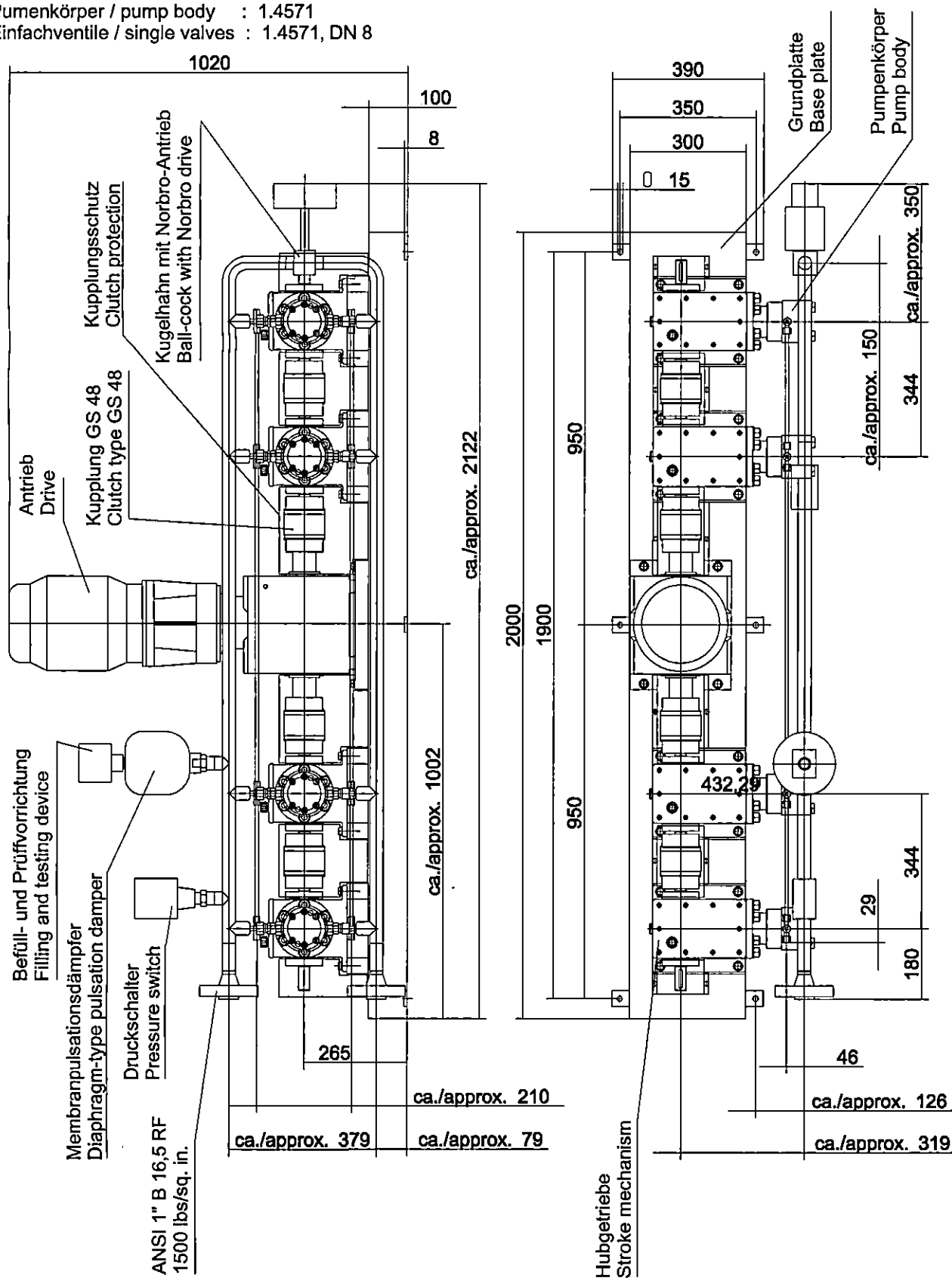
### Piston-combination pump

SK 13187

Dosieren  
Fördern  
Verdichten

SE

Pumpenkörper / pump body : 1.4571  
Einfachventile / single valves : 1.4571, DN 8



Telefax (05673) 999155

CAD-file: T180139  
CODE: FIS 02 00 T1



SPraydryer [T161446]

## ENGINEERING &amp; ORDERING DATA [electrical + mechanical]

Control	Cnt	Part	Supplier / Manufacture	Type	Range	Proces connection	Price	Purchase order	State
1-BARM	0	-	--- / ---	-	-	-	0.00		To order
1-DNCI	0	-	--- / ---	-	-	-	0.00		To order
1-DNDEF	0	-	--- / ---	-	-	-	0.00		To order
2-DNSC	0	-	--- / ---	-	-	-	0.00		To order
AB	1	Fan	Naaykens / Naaykens	B122-uitv.1-kl 2	2000 m³/h-3 HP		0.00	4500007023	Deleverd
AC	1	Cooler	Holland Heating / Holland Heating	122	2000m³/h-Cooler 63,4 KW	Flange 1-1/2"ANSI	0.00	4500007054	Deleverd
AF	1	Filter	D.E. Sara Lee / GTI FIB process equipment	5-fold		-	0.00	4500010411	Ordered
AH	1	Cooler	Holland Heating / Holland Heating	122	2000m³/h-Cooler 63,4 KW	Flange 1-1/2"ANSI	0.00	4500007054	Deleverd
AI2	1	Air inlet valve	D.E. Sara Lee / GTI FIB process equipment	T161914	2000 m³/h	D=300 mm	0.00	4500010411	Ordered
BFV-01	1	Butterfly valve manual	GTI FIB process equipment / Alfa Laval	LKB38-316L-EPDM-2 pos.handleA		1-1/2" (38,1x1,5)	0.00	4500011268	Ordered
BFV-02	1	Butterfly valve manual	GTI FIB process equipment / Alfa Laval	LKB38-316L-EPDM-2 pos.handleA		1-1/2" (38,1x1,5)	0.00	4500011268	Ordered
BFV-03	1	Butterfly valve manual	GTI FIB process equipment / Alfa Laval	LKB38-316L-EPDM-2 pos.handleA		1-1/2" (38,1x1,5)	0.00	4500011268	Ordered
BFV-04	1	Butterfly valve manual	GTI FIB process equipment / Alfa Laval	LKB38-316L-EPDM-2 pos.handleA		1-1/2" (38,1x1,5)	0.00	4500011268	Ordered
BFV-05	1	Butterfly valve manual	GTI FIB process equipment / Alfa Laval	LKB38-316L-EPDM-2 pos.handleA		1-1/2" (38,1x1,5)	0.00	4500011268	Ordered
BFV-06	1	Butterfly valve manual	GTI FIB process equipment / Alfa Laval	LKB38-316L-EPDM-2 pos.handleA		1-1/2" (38,1x1,5)	0.00	4500011268	Ordered
BFV-07	1	Butterfly valve manual	GTI FIB process equipment / Alfa Laval	LKB38-316L-EPDM-2 pos.handleA		1-1/2" (38,1x1,5)	0.00	4500011268	Ordered
BFV-08	1	Butterfly valve manual	Alfa Laval / Alfa Laval	LKB50-316L-EPDM-2 pos.handleA		2"-(50,8x1,5)	0.00	4500009854	Ordered
BFV-09	1	Butterfly valve manual	Alfa Laval / Alfa Laval	LKB50-316L-EPDM-2 pos.handleA		2"-(50,8x1,5)	0.00	4500009854	Ordered
BFV-10	1	Butterfly valve manual	Alfa Laval / Alfa Laval	LKB50-316L-EPDM-2 pos.handleA		2"-(50,8x1,5)	0.00	4500009854	Ordered
BFV-11	1	Butterfly valve manual	Alfa Laval / Alfa Laval	LKB50-316L-EPDM-2 pos.handleA		2"-(50,8x1,5)	0.00	4500009854	Ordered
BFV-12	1	Butterfly valve manual	Alfa Laval / Alfa Laval	LKB50-316L-EPDM-2 pos.handleA		2"-(50,8x1,5)	0.00	4500009854	Ordered
BFV-13	1	Butterfly valve manual	Alfa Laval / Alfa Laval	LKB50-316L-EPDM-2 pos.handleA		2"-(50,8x1,5)	0.00	4500009854	Ordered
BFV-14	1	Butterfly valve manual	GTI FIB process equipment / Hovap	2" weld/weld		50,8x1,5	0.00	4500011268	Ordered
BFV-15	1	Butterfly valve manual	GTI FIB process equipment / Hovap	2" weld/weld		50,8x1,5	0.00	4500011268	Ordered
BFV-16	1	Butterfly Valve manual	Alfa Laval / Alfa Laval	LKB38-316L-silic,-2pos handleA		1-1/2"-(38,1X1,5)	0.00	4500013869	Ordered
BFV-17	1	Butterfly Valve manual	Alfa Laval / Alfa Laval	LKB38-316L-silic,-2pos handleA		1-1/2"-(38,1X1,5)	0.00	4500013869	Ordered
BFV-18	1	Butterfly Valve manual	Alfa Laval / Alfa Laval	LKB38-316L-silic,-2pos handleA		1-1/2"-(50,8X1,5)	0.00	4500013869	Ordered
BV-01	1	Ball Valve	Flowserve / Worchester	05-A44-6666-RT-BWA-BWA-Sch.10	-	20X1,5	0.00	4500013863	Ordered
BV-02	1	Ball valve	Econosto / Econosto	7742	-	1/2" G	0.00	4500014132	Ordered
BV-03	1	Ball valve manual	GTI FIB process equipment / Worchester	05-A44-6666-RT-BWA-BWA 20x1,5		20x1,5	0.00	4500011268	Ordered
BV-04	1	Ball valve manual	GTI FIB process equipment / Worchester	05-A44-6666-RT-BWA-BWA 20x1,5		20x1,5	0.00	4500011268	Ordered
BV-06	1	Ball valve	Econosto / Econosto	7742	-	1/2" G	0.00	4500014132	Ordered
BV-07	1	Ball valve manual	Flowserve / Worchester	05-A44-6666-RT-BWA-BWA 20x1,5		20x1,5	0.00	4500014135	Ordered
BV-08	1	Ball valve manual	GTI FIB process equipment / Worchester	05-A44-6666-RT-BWA-BWA 21,3x3		21.3x3	0.00	4500011268	Ordered
BV-09	1	Ball valve manual	GTI FIB process equipment / Worchester	05-A44-6666-RT-BWA-BWA 20x1,5		20x1,5	0.00	4500011268	Ordered
BV-10	1	Ball valve	--- / ---	-	-		0.00		To order
BV-11	1	Ball valve	--- / ---	-	-		0.00		To order
BV-12	1	Ball valve	--- / ---	-	-		0.00		To order
BV-13	1	Ball valve	--- / ---	-	-		0.00		To order

## SPraydryer [T161446]

## ENGINEERING &amp; ORDERING DATA [electrical + mechanical]

Control	Cnt	Part	Supplier / Manufacture	Type	Range	Proces connection	Price	Purchase order	State
BV-14	1	Ball valve manual	Flowserve / Worcester	05-A44-6666-RT-BWA-BWA 20x1,5		20x1,5	0.00	4500014135	Ordered
BV-15	1	Ball valve manual	Flowserve / Worcester	05-A44-6666-RT-BWA-BWA 20x1,5		20x1,5	0.00	4500014135	Ordered
BV-16	1	Gascock	Maxon / Maxon	s.95	-	2"NPT	0.00	4500007545	Deleverd
BV-17	1	Gascock	Maxon / RUB	s.95	-	1/4" NPT	0.00	4500007545	Deleverd
BV-18	1	Gascock	Maxon / RUB	s.95	-	1/4" NPT	0.00	4500007545	Deleverd
BV-19	1	Gascock	Maxon / RUB	s.95	-	2" NPT	0.00	4500007545	Deleverd
BV-20	1	Gascock	Maxon / RUB	s.95	-	1/2" NPT	0.00	4500007545	Deleverd
BV-21	1	Gascock	Maxon / RUB	s.95	-	1/4" NPT	0.00	4500007545	Deleverd
BV-22	1	Gascock	Maxon / RUB	s.95	-	1/4" NPT	0.00	4500007545	Deleverd
BV-23	1	Gascock	Maxon / RUB	s.95	-	1/2" NPT	0.00	4500007545	Deleverd
BV-24	1	Gascock	Maxon / RUB	s.95	-	1/4"NPT	0.00	4500007545	Deleverd
BV-25	1	Gascock	Maxon / RUB	s.95	-	1/4"NPT	0.00	4500007545	Deleverd
BX-F	1	Ignition Transformer	Maxon / Dongan Electr.	A06-SA6D	120V/60 HZ		0.00	4500007545	Deleverd
CHV-01	1	Butterfly Valve manual	Alfa Laval / Alfa Laval	LKB38-316L-silic,-2pos handleA		1-1/2"-(38,1X1,5)	0.00	4500013869	Ordered
CHV-02	1	Butterfly Valve manual	Alfa Laval / Alfa Laval	LKB38-316L-silic,-2pos handleA		1-1/2"-(38,1X1,5)	0.00	4500013869	Ordered
CHV-03	1	CHeck Valve	-- / --	-	-	-	0.00		To order
CHV-04	1	CHeck Valve	-- / --	-	-	-	0.00		To order
CHV-05	1	CHeck Valve	-- / --	-	-	-	0.00		To order
CROP	1	Clean. Rins. Outl. Pump	Alfa Laval / Alfa Laval	LKH-35	20 m3/h - 6 bar	in 2,5"-out 2" Tri-c	0.00	4500014166	Ordered
D	1	Spray dryer	GTI FIB process equipment / GTI FIB process	T161371		-	0.00	4500008233	Deleverd
DC1	1	Multicyclone	D.E. Sara Lee / GTI FIB process equipment	T161892	total 3,75 m³/sec		0.00	4500010411	Ordered
DC2	1	Multicyclone	D.E. Sara Lee / GTI FIB process equipment	T161892			0.00	4500010411	Ordered
DC3	1	Multicyclone	D.E. Sara Lee / GTI FIB process equipment	T161892			0.00	4500010411	Ordered
DC4	1	Multicyclone	D.E. Sara Lee / GTI FIB process equipment	T161892			0.00	4500010411	Ordered
DCR1	1	Rotary valve	TBMA / TBMA	H-AR 150//PN10	9 kg /h -36 ltr/h - 30 ° C	150 mm	0.00	4500007042	Deleverd
DCR2	1	Rotary valve	TBMA / TBMA	H-AR 150//PN10	9 kg /h -36 ltr/h - 30 ° C	150 mm	0.00	4500007042	Deleverd
DCR3	1	Rotary valve	TBMA / TBMA	H-AR 150//PN10	9 kg /h -36 ltr/h - 30 ° C	150 mm	0.00	4500007042	Deleverd
DCR4	1	Rotary valve	TBMA / TBMA	H-AR 150//PN10	9 kg /h -36 ltr/h - 30 ° C	150 mm	0.00	4500007042	Deleverd
DCS	1	Outlet cone	D.E. Sara Lee / GTI FIB process equipment	T161385	-	-	0.00	4500006233	Ordered
DOF	1	Fan	Naaykens / Naaykens	B 200-ultv.1-kl3	13500 m³/h	D=500	0.00	4500007023	Deleverd
DPB	1	Hopper after outletcone	D.E. Sara Lee / GTI FIB process equipment	T161397	±250 ltr	-	0.00	4500010411	Ordered
DPOR	1	-	-- / --	-	-	-	0.00		To order
dPS-F	1	Airpressure switch	Maxon / Antunes	JD-A2	0,1-4" WC	1/8" NPT	0.00	4500007545	Deleverd
DV1	1	Vibrator	GTI FIB process equipment / ABM	RD 71 b 2 -06,0	-	-	0.00	4500010421	Deleverd
DV2	1	Vibrator	GTI FIB process equipment / ABM	RD 71 b 2 -06,0	-	-	0.00	4500010421	Deleverd
DV3	1	Vibrator	GTI FIB process equipment / ABM	RD 71 b 2 -06,0	-	-	0.00	4500010421	Deleverd
DV4	1	Vibrator	GTI FIB process equipment / ABM	RD 71 b 2 -06,0	-	-	0.00	4500010421	Deleverd
DV5	1	Vibrator	GTI FIB process equipment / ABM	RD 71 b 2 -06,0	-	-	0.00	4500010421	Deleverd
EF1.1	1	Filter	GTI FIB process equipment / APV	Angle type 2" weld ends	-	2"	0.00	4500011268	Ordered

## ENGINEERING &amp; ORDERING DATA [electrical + mechanical]

Control	Cnt	Part	Supplier / Manufacture	Type	Range	Proces connection	Price	Purchase order	State
	1	Filter insert	GTI FIB process equipment / APV	33 mesh wire thicknes 0,26 mm			0.00	4500011268	Ordered
EF1.2	1	Filter	GTI FIB process equipment / APV	Angle type 2" weld ends	-	2"	0.00	4500011268	Ordered
	1	Filter insert	GTI FIB process equipment / APV	33 mesh wire thicknes 0,26 mm			0.00	4500011268	Ordered
EF2.1	1	Filter	GTI FIB process equipment / APV	Angle type 2" weld ends	-	2"	0.00	4500011268	Ordered
	1	Filter insert	GTI FIB process equipment / APV	33 mesh wire thicknes 0,26 mm			0.00	4500011268	Ordered
EF2.2	1	Filter	GTI FIB process equipment / APV	Angle type 2" weld ends	-	2"	0.00	4500011268	Ordered
	1	Filter insert	GTI FIB process equipment / APV	33 mesh wire thicknes 0,26 mm			0.00	4500011268	Ordered
EPP	1	High pressure pump	Kalteren / Sera	RFK411K.1-56C/80+MK411K.1-56C	75-750 ltr/h-max.70 bar	Flange 1" ANSI	0.00	4500011189	Deleverd
ET	1	Extractank	D.E. Sara Lee / GTI FIB process equipment	T-161960	200 L	Tri-lamp 1-1/2" + 2"	0.00	4500011268	Ordered
F	1	Combustion chamber	Maxon / Maxon	GCOCH00 / 303009	300°C - 1100 KW	2-1/2"NPT	0.00	4500007052	Ordered
	1	Pipe train for NP1	Maxon / Maxon	-	1100 KW	2" NPT	0.00	4500007052	Ordered
FAF	1	Airfilterbox 6-fold	D.E. Sara Lee / GTI FIB process equipment	T161895	8700 m³/h	D=500	0.00	4500010411	Ordered
FEV-CROP	1	Electro Valve	Bürkert / Bürkert	139583 N	0,2-10 bar 110 V-60Hz	1/2"-	0.00		To order
FEV-EPP	1	Electro Valve	Bürkert / Bürkert	139583 N	0,2-10 bar - 110 V 60hz	1/2" BSP	0.00		To order
FEV-FPVV	1	Vent Valve	Maxon / ASCO	8215G33	120V/60Hz	3/4" NPT	0.00	4500007545	Deleverd
FEV-FVV	1	Vent Valve	Maxon / ASCO	8215G33	120V/60Hz	3/4" NPT	0.00	4500007545	Deleverd
FEV1-FG	1	Shut off valve	Maxon / Maxon	5000	120V/60Hz	1-1/2" NPT	0.00	4500007545	Deleverd
	1	Shut off Valve	Maxon / Maxon	5000	120V/60Hz	1-1/2" NPT	0.00	4500007545	Deleverd
FEV1-FPG	1	Solenoid valve	Maxon / Kromschroeder	VG15NO3ND92	120V/60Hz	1/2" NPT	0.00	4500007545	Ordered
FEV2-FG	1	Shut off valve	Maxon / Maxon	5000	120V/60Hz	1-1/2" NPT	0.00	4500007545	Deleverd
	1	Shut off Valve	Maxon / Maxon	5000	120V/60Hz	1-1/2" NPT	0.00	4500007545	Deleverd
FEV2-FPG	1	Solenoid valve	Maxon / Kromschroeder	VG15NO3ND92	120V/60Hz	1/2" NPT	0.00	4500007545	Ordered
FIF	1	Fan	Naaykens / Naaykens	B200-uitv.1-kl3	8700 m³/h	D=500	0.00	4500007023	Deleverd
FIV2	1	Furnace inlet valve	D.E. Sara Lee / GTI FIB process equipment	T161896	8700 m³/h	D=600	0.00	4500010411	Ordered
FNF-01	1	Gas strainer	Maxon / Mueller	#11-M #40 mesh	-	2" NPT	0.00	4500007545	Deleverd
FPU-CI-A	1	Sanitary remote control valve	Alfa Laval / Alfa Laval	Unique -SF-51-W129		51 (2")	0.00	4500009854	Ordered
	1	ThinkTop	Alfa Laval / Alfa Laval	DEVICENET 1 SOL			0.00	4500009854	Ordered
FPU-CI-B	1	Sanitary remote control valve	Alfa Laval / Alfa Laval	Unique -SF-51-W219		51 (2")	0.00	4500009854	Ordered
	1	ThinkTop	Alfa Laval / Alfa Laval	DEVICENET 1 SOL			0.00	4500009854	Ordered
FPU-CIM	1	Sanitary remote control valve	Alfa Laval / Alfa Laval	SRC-W-51-22-10(NO)		51 (2")	0.00	4500013594	Ordered
	1	Thinktop	Alfa Laval / Alfa Laval	DEVICENET 1 SOL			0.00	4500013594	Ordered
FPU-CIS	1	Butterfly valve pneumatic	Alfa Laval / Alfa Laval	LKB-51/EPDM/316/LKLA-T/85/NC		51 (2")	0.00	4500013536	Ordered
	1	Thinktop	Alfa Laval / Alfa Laval	DEVICENET 1 SOL			0.00	4500013536	Ordered
FPU-CO-1	1	Sanitary remote control valve	Alfa Laval / Alfa Laval	Unique -SF-51-W219		51 (2")	0.00	4500009854	Ordered
	1	ThinkTop	Alfa Laval / Alfa Laval	DEVICENET 1 SOL			0.00	4500009854	Ordered
FPU-CO-B	1	Sanitary remote control valve	Alfa Laval / Alfa Laval	Unique -SF-51-W119		51 (2")	0.00	4500009854	Ordered
	1	ThinkTop	Alfa Laval / Alfa Laval	DEVICENET 1 SOL			0.00	4500009854	Ordered
FPU-COM	1	Sanitary remote control valve	Alfa Laval / Alfa Laval	SRC-W-51-22-10(NO)		51 (2")	0.00	4500013594	Ordered
	1	Thinktop	Alfa Laval / Alfa Laval	DEVICENET 1 SOL			0.00	4500013594	Ordered

## ENGINEERING &amp; ORDERING DATA [electrical + mechanical]

Control	Cnt	Part	Supplier / Manufacture	Type	Range	Proces connection	Price	Purchase order	State
FPU-COS	1	Butterfly valve pneumatic	Alfa Laval / Alfa Laval	LKB-51/EPDM/316L/LKLA-T/85/NC		51 (2")	0.00	4500013536	Ordered
	1	Thinktop	Alfa Laval / Alfa Laval	DEVICENET 1 SOL			0.00	4500013536	Ordered
FPU-ETI	1	Butterfly valve pneumatic	Alfa Laval / Alfa Laval	LKB-51/EPDM/316L/LKLA-T/85/NC		51 (2")	0.00	4500013536	Ordered
	1	Thinktop	Alfa Laval / Alfa Laval	DEVICENET 1 SOL			0.00		To order
FPU-ETIC	1	Sanitary remote control valve	Alfa Laval / Alfa Laval	SRC-W-38-21-10(NO)		38 (1-1/2")	0.00	4500013594	Ordered
	1	Thinktop	Alfa Laval / Alfa Laval	DEVICENET 1 SOL			0.00	4500013594	Ordered
FPU-EV-B	1	Sanitary remote control valve	Alfa Laval / Alfa Laval	Unique -SF-51-W111		51 (2")	0.00	4500009854	Ordered
	1	ThinkTop	Alfa Laval / Alfa Laval	DEVICENET 1 SOL			0.00	4500009854	Ordered
FPU-RI-A	1	Sanitary remote control valve	Alfa Laval / Alfa Laval	Unique -SF-51-W219		51 (2")	0.00	4500009854	Ordered
	1	ThinkTop	Alfa Laval / Alfa Laval	DEVICENET 1 SOL			0.00	4500009854	Ordered
FPU-RO-B	1	Sanitary remote control valve	Alfa Laval / Alfa Laval	Unique -SF-51-W219		51 (2")	0.00	4500009854	Ordered
	1	ThinkTop	Alfa Laval / Alfa Laval	DEVICENET 1 SOL			0.00	4500009854	Ordered
FPU-SV-1A	1	Sanitary remote control valve	Alfa Laval / Alfa Laval	Unique-SF-51-W229		51 (2")	0.00	4500009854	Ordered
	1	ThinkTop	Alfa Laval / Alfa Laval	DEVICENET 3 SOL			0.00	4500009854	Ordered
FPV-DCOS	1	-	-- / --	-	-	-	0.00		To order
FPV-DIV	1	Valve for air inlet	D.E. Sara Lee / GTI FIB process equipment	T161893			0.00	4500010411	Ordered
FPV-DOV	1	Valve for outlet air	D.E. Sara Lee / GTI FIB process equipment	T161889			0.00	4500010411	Ordered
FPV-DPOS	1	-	-- / --	-	-	-	0.00		To order
FPV-EIS	1	Ball valve	Flowserve / Worcester	10-A44-6666-RT-BWA-BWA33,5x28		33,5x28	0.00	4500013863	Ordered
	1	Spring Return Actuator	Flowserve / Norbro	10-40R-10 NAMUR	NC		0.00	4500013863	Ordered
FPV-EIV1	1	Ball valve	Flowserve / Worcester	10-A44-6666-RT-BWA-BWA33,5x28		33,5x28	0.00	4500013863	Ordered
	1	Spring Return Actuator	Flowserve / Norbro	10-40R-10 NAMUR	NC		0.00	4500013863	Ordered
FPV-EIV2	1	Ball valve	Flowserve / Worcester	10-A44-6666-RT-BWA-BWA33,5x28		33,5x28	0.00	4500013863	Ordered
	1	Spring Return Actuator	Flowserve / Norbro	10-40R-10 NAMUR	NC		0.00	4500013863	Ordered
FPV-EPCB	1	Ball valve	Flowserve / Worcester	10-A44-6666-RT-BWA-BWA		25.4x1.25	0.00	4500011190	Deleverd
	1	Spring Return Actuator	Flowserve / Norbro	10-40R-10 NAMUR	NC		0.00	4500011190	Deleverd
FPV-GIV1	1	Ball valve	Flowserve / Worcester	10-A44-6666-RT-BWA-BWA33,5x28		33,5x28	0.00	4500013863	Ordered
	1	Spring Return Actuator	Flowserve / Norbro	10-40R-10 NAMUR	NC		0.00	4500013863	Ordered
FPV-GIV2	1	Ball valve	Flowserve / Worcester	10-A44-6666-RT-BWA-BWA33,5x28		33,5x28	0.00	4500013863	Ordered
	1	Spring Return Actuator	Flowserve / Norbro	10-40R-10 NAMUR	NC		0.00	4500013863	Ordered
FPV-GS	1	Ball valve	Flowserve / Worcester	10-A44-6666-RT-BWA-BWA33,5x28		33,5x28	0.00	4500013863	Ordered
	1	Spring Return Actuator	Flowserve / Norbro	10-40R-10 NAMUR	NC		0.00	4500013863	Ordered
FPV-SVR-A	1		Alfa Laval / Bürkert				0.00	4500009854	Ordered
FPV-SVR-B	1		Alfa Laval / Bürkert				0.00	4500009854	Ordered
GB1	1	Gas Bottle	-- / --	-	-	-	0.00		To order
GB2	1	Gas Bottle	-- / --	-	-	-	0.00		To order
GB3	1	Gas Bottle	-- / --	-	-	-	0.00		To order
GB4	1	Gas Bottle	-- / --	-	-	-	0.00		To order
GDB1	1	Gas Draining Bottle	-- / --	-	-	-	0.00		To order



## Spraydryer [T161446]

## ENGINEERING &amp; ORDERING DATA [electrical + mechanical]

Control	Cnt	Part	Supplier / Manufacture	Type	Range	Proces connection	Price	Purchase order	State
GDB2	1	Gas Draining Bottle	== / ==	-	-	-	0.00		To order
GH	1	Gas Heater	== / ==	-	-	-	0.00		To order
GI	1	Injector carbonic acid gas	D.E. Sara Lee / GTI FIB process equipment	T161927 A	-	2 x 20mm +1 x 6 mm	0.00	4500011268	Ordered
GV-01	1	Global Valve	Econosto / ==	STEAM	150 lbs-ANSI-FIG.1770	1"	0.00		To order
GV-02	1	Global Valve	Econosto / ==	STEAM	150 lbs-ANSI-FIG.1770	1"	0.00		To order
GV-03	1	Global Valve	Econosto / ==	STEAM	150 lbs-ANSI-FIG.1770	1"	0.00		To order
GV-04	1	Global Valve	Econosto / ==	STEAM	150 lbs-ANSI-FIG.1770	1"	0.00		To order
GV-07	1	Global Valve	== / ==	-	-	-	0.00		To order
GV-08	1	Global Valve	== / ==	-	-	-	0.00		To order
GV-09	1	Global Valve	== / ==	-	-	-	0.00		To order
GV-10	1	Global Valve	== / ==	-	-	-	0.00		To order
GV-11	1	Global Valve	== / ==	-	-	-	0.00		To order
GV-12	1	Global Valve	== / ==	-	-	-	0.00		To order
GV-13	1	Global Valve	== / ==	-	-	-	0.00		To order
GV-14	1	Global Valve	== / ==	-	-	-	0.00		To order
GV-15	1	Global Valve	== / ==	-	-	-	0.00		To order
GV-19	1	Global Valve	Econosto / ==	Condensate	Tin 80°C Tout 60°C- 1 m³/hr	1" ANSI Flange 150 I	0.00		To order
GV-20	1	Global Valve	Econosto / ==	Condensate	Tin 80°C Tout 60°C- 1 m³/hr	1" ANSI Flange 150 I	0.00		To order
GV-21	1	Global Valve	Econosto / ==	Condensate	Tin 80°C Tout 60°C- 1 m³/hr	1" ANSI Flange 150 I	0.00		To order
GV-22	1	Global Valve	Econosto / ==	Condensate	Tin 80°C Tout 60°C- 1 m³/hr	1" ANSI Flange 150 I	0.00		To order
hPS-EPP	1	Pressure control	Kalteren / United Electric	H100	80-1700" WC	1/2" NPTF	0.00	4500011189	Ordered
hPS-FG	1	Max. pressure switch	Maxon / Antunes	RHGP-A	10-50" WC	1/4" NPT	0.00	4500007545	Deleverd
ILS-EPP	1		Endress & Hauser / Endress & Hauser	Liquifant M FTL50H-ATC2AC2G6A		Tri-clamp 1 1/2"	0.00		To order
IPS-FG	1	Mini pressure switch	Maxon / Antunes	RLGP-A	10-50"WC/25-12	1/4" NPT	0.00	4500007545	Deleverd
LT-ET	1		Emerson / Emerson	3051TG2F2B21BB01S1/1199WNA95SS	0-400 mBAR	Tri-clamp 2"	1,449.00		To order
IZS-DIA	1		Maxon /				0.00	4500007052	Deleverd
M-01	1	Manifold 4-f	== / ==	-	-		0.00		To order
M-02	1	Manifold 2-f	== / ==	-	-		0.00		To order
MSD	1	Manifold number 18	Alfa Laval / Alfa Laval	T162677	-	2" Triclamp	0.00	4500009854	Ordered
NV-01	1	Needle Valve	Econosto / Econosto	226S		1/4" G	0.00	4500014132	Ordered
NV-02	1	Needle Valve	Econosto / Econosto	226S		1/4" G	0.00	4500014132	Ordered
NV-03	1	Needle Valve	== / ==	-	-	-	0.00		To order
PCV-01	1	-	== / ==	-	-	-	0.00		To order
PCV-02	1	-	== / ==	-	-	-	0.00		To order
PCV-03	1	Gas pressure regulator	Maxon / Rockwell	122-8	-	1" NPT	0.00	4500007545	Deleverd
PI-CP	1	Pressure Indicator	Econosto / Econosto	fig.nr. 366-D-100 mm	0-6 bar	1/2" G	0.00	4500014132	Ordered
	1	Adjusting Union	Econosto / Econosto	fig.1399-1/2"	-	1/2"G	0.00	4500014132	Ordered
	1	Welding Nipple	Econosto / Econosto	fig.nr.1314RVS		1/2"G(left threaded)	0.00	4500014132	Ordered
PI1-EPP	1	Pressure Indicator	Econosto / Econosto	fig nr.1382 D=100	P=0-100 bar	1/2"	0.00	4500014132	Ordered

## SPraydryer [T161446]

## ENGINEERING &amp; ORDERING DATA [electrical + mechanical]

Control	Cnt	Part	Supplier / Manufacture	Type	Range	Proces connection	Purchase		State
							Price	order	
PI1-GS	1	Seal	Econosto / Econosto	fig.nr. 3905		1/2"G	0,00	4500014132	Ordered
	1	Adjusting Union	Econosto / Econosto	fig.nr.1399		1/2"G	0,00	4500014132	Ordered
	1	Welding Nipple	Econosto / Econosto	fig.nr.1314RVS		1/2"G(left threaded)	0,00	4500014132	Ordered
PI2-EPP	1	-	-/-	-	-	-	0,00		To order
PI2-FG	1	Pressure indicator	Econosto / Econosto	fig nr.1382 D=100	P=0-100 bar	1/2"	0,00	4500014132	Ordered
	1	Seal	Econosto / Econosto	fig.nr. 3905		1/2"G	0,00	4500014132	Ordered
	1	Adjusting Union	Econosto / Econosto	fig.nr.1399		1/2"G	0,00	4500014132	Ordered
PI2-GS	1	Welding Nipple	Econosto / Econosto	fig.nr.1314RVS		1/2"G(left threaded)	0,00	4500014132	Ordered
	1	Pressure indicator	Maxon / Maxon	Diam 63	0-15 PSI	1/4" NPT	0,00	4500007545	Deleverd
	1	-	-/-	-	-	-	0,00		To order
PI3-FG	1	Pressure indicator	Maxon / Maxon	Diam 63	0-15 PSI	1/4" NPT	0,00	4500007545	Deleverd
PI3-GS	1	-	-/-	-	-	-	0,00		To order
PI4-GS	1	-	-/-	-	-	-	0,00		To order
PI5-GS	1	-	-/-	-	-	-	0,00		To order
PI6-GS	1	-	-/-	-	-	-	0,00		To order
PI7-GS	1	-	-/-	-	-	-	0,00		To order
PIT-EFI	1		Emerson / Emerson	3051TG2F2B21BB01M5S1/1199WNA95	0-10 BAR (gauge)	Tri-clamp 2"	1,585.00		To order
PIT-EFO	1		Emerson / Emerson	3051TG2F2B21BB01M5S1/1199WNA95	0-10 BAR (gauge)	Tri-clamp 2"	1,585.00		To order
PIT-EPP	1		Emerson / Emerson	3051TG3F2B21BB01	0-40 BAR (gauge)	G 1" (1/2" NPT)	1,085.00		To order
PSV-01	1	Pressure safety valve	-/-	-	-	-	0,00		To order
PT-DOA	1		Emerson / Emerson	3051TA2F2B21BB01S1/1199WNA95SS	0-2000 mBAR (absolute)	Tri-clamp 2"	1,660.00		To order
PT1-D	1		Emerson / Emerson	3051TA2F2B21BB01S1/1199WNA95SS	0-2000 mBAR (absolute)	Tri-clamp 2"	1,660.00		To order
PT2-D	1		Emerson / Emerson	3051TA2F2B21BB01S1/1199WNA95SS	0-2000 mBAR (absolute)	Tri-clamp 2"	1,660.00		To order
PT3-D	1		Emerson / Emerson	3051TA2F2B21BB01S1/1199WNA95SS	0-2000 mBAR (absolute)	Tri-clamp 2"	1,660.00		To order
RT	1	Receiving tube	D.E. Sara Lee / GTI FIB process equipment	T161983 A	-	3/8" NPT	0,00	4500011268	Ordered
SB	1	-	-/-	-	-	-	0,00		To order
TI-AH	1	Thermo-indicator	Econosto / Econosto	fig.nr.662-D=100-L=100/AISI	0-120°C	1/2"G	0,00	4500014132	Ordered
TPV-AC	1	Pneumatic Control Valve	Samson / Samson	3241-7	KVS-16	2" FI. ANSI-150I	0,00	4500014572	Ordered
TPV-AHC	1	Pneumatic Control Valve	Samson / Samson	3241-7	KVS16	1" FI. ANSI-150 lbs	0,00	4500014572	Ordered
TPV-DIA	1	Control motor	Maxon / Honeywell	M6284D1000	24V/50Hz		0,00	4500007545	Deleverd
	1	Control valve	Maxon / Maxon	CV-1-1/4"-UL		1-1/4" NPT	0,00	4500007545	Deleverd
TT-AC	1		Emerson / Emerson	3244MVF2NAB4/Sensor 0065C21D01	0-400 C	NPT 1"	826.00		To order
TT-AHC	1		Emerson / Emerson	3244MVF2NAB4/Sensor 0065C21D01	0-400 C	NPT 1"	826.00		To order
TT-DIA	1		Emerson / Emerson	3244MVF2NAB4/Sensor 0065C21D01	0-400 C	NPT 1"	826.00		To order
TT-DOA	1		Emerson / Emerson	3244MVF2NAB4/Sensor 0065C21D01	0-400 C	NPT 1"	826.00		To order
TT-EPP	1		ASCO / Alfa Laval				111.00	1	Ordered
TT-FIA	1		Emerson / Emerson	3244MVF2NAB4/Sensor 0065C21D01	0-400 C	NPT 1"	826.00		To order
TT-FOA	1		Emerson / Emerson	3244MVF2NAB4/Sensor 0065C21D01	0-400 C	NPT 1"	826.00		To order
TT1-D	1		Emerson / Emerson	3244MVF2NAB4/Sensor 0065C21D01	0-400 C	NPT 1"	826.00		To order

## SPraydryer [T161446]

## ENGINEERING &amp; ORDERING DATA [electrical + mechanical]

Control	Cnt	Part	Supplier / Manufacture	Type	Range	Proces connection	Purchase Price order	State
TT2-D	1		Emerson / Emerson	3244MVF2NAB4/Sensor 0065C21D01	0-400 C	NPT 1"	826.00	To order
TT3-D	1		Emerson / Emerson	3244MVF2NAB4/Sensor 0065C21D01	0-400 C	NPT 1"	826.00	To order
WIU-DCPO	1	Weigh modult with devicenet	Hardy / Hardy	HI 200DNWM	0-400 KG		0.00	To order
	1	Stainles steel juntion box	Hardy / Hardy	HI 2152 JB SS1			0.00	To order
	0	Load cell cable	Hardy / Hardy	C2 cable			0.00	To order
	1	Load Cells	Hardy / Hardy	HI 358.75K-4	0-1150 KG		0.00	To order
WIU-DPO	1	Weigh modult with devicenet	Hardy / Hardy	HI 200DNWM	0-400 KG		0.00	To order
	1	Stainles steel juntion box	Hardy / Hardy	HI 2152 JB SS1			0.00	To order
	0	Load cell cable	Hardy / Hardy	C2 cable			0.00	To order
	1	Load Cells	Hardy / Hardy	HI 358.75K-4	0-1150 KG		0.00	To order
WT-DCPO	0	see WIU....	Hardy / Hardy				0.00	To order
WT-DPO	0	see WIU....	Hardy / Hardy				0.00	To order

## TESTING

## NOTES