Pumpenliste/list of pumps

P1 PUTA030300-03108 1,8 kW
P2-P4 PUTA000300-00817 0,37kW
P5 PUTA006900-00532 0,75kW
P6 PUTA059300-00215 0,09kW

V_S ca. 0,5m/min
Conveyor speed approx. 0,5m/min

IL-Transport

Arbeitsrichtung/Working Direction: R - L
Arbeitsbreite/Working Width : 650mm
Plattenformat/Panel Size max.: 610mmx610mm
min.: 180mmx180mm
Plattendicke/Panel Thickness max.: 4,0mm
min.: 0,135mm

Com.-No.: 25-07-308
78-07-309

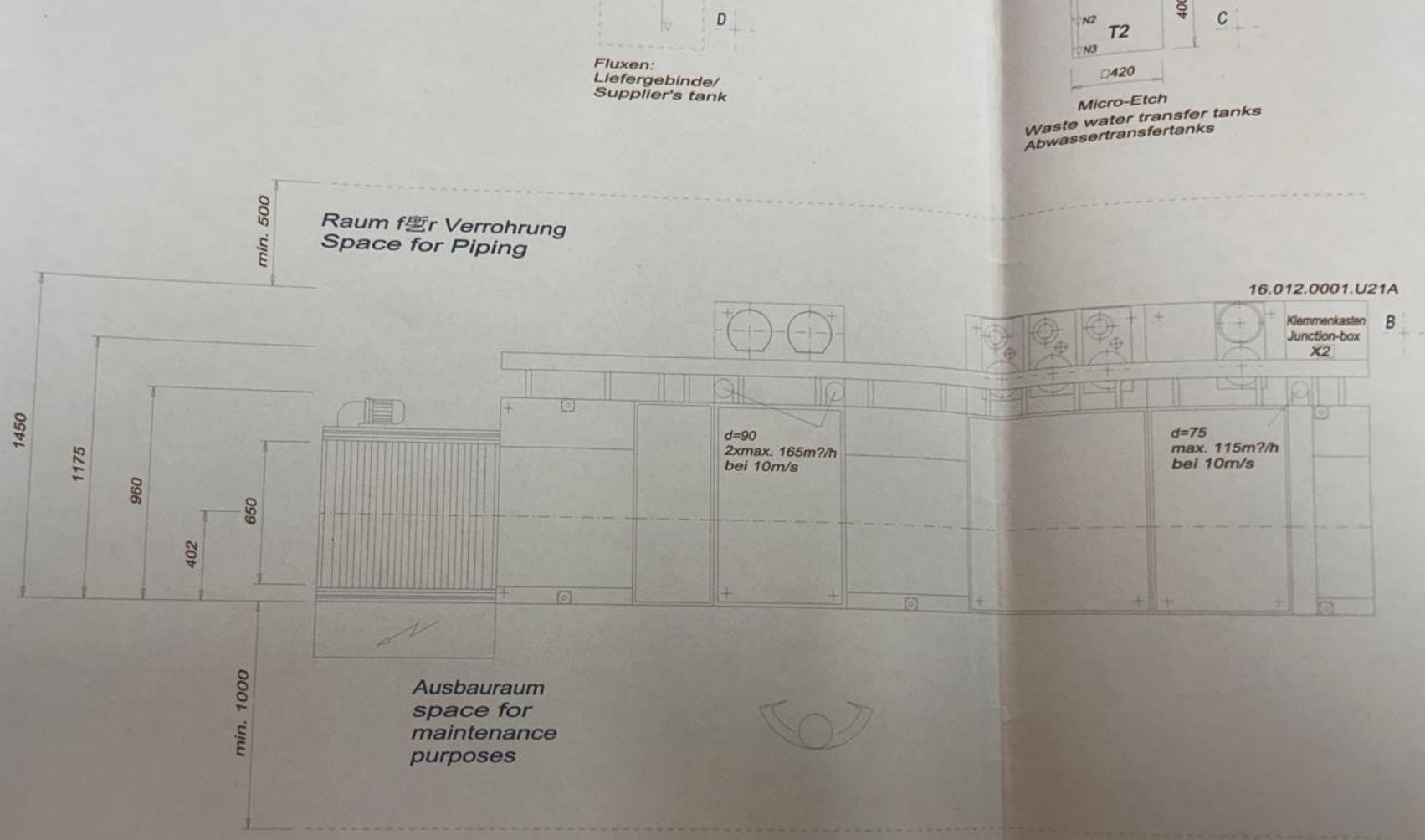
400V/50Hz

Nr.	Datum	Veranlasst	Geprueft VK	Werk	2007	Date	Name		File 203696
					Sign.	10.10.	Oeste	1:25	
					Chk.				
					Norm				

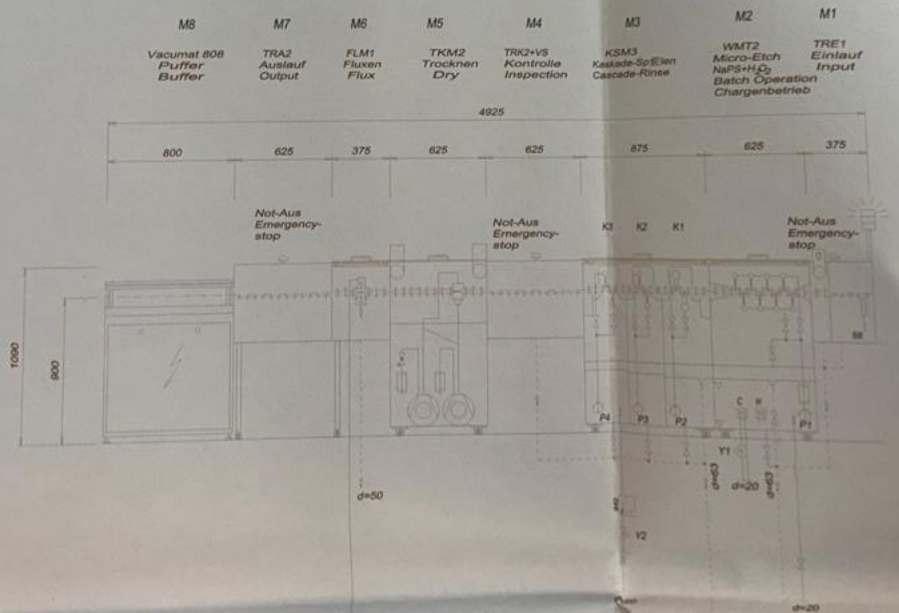
SCHMID
Ihr Partner für perfekte Leiterplattentechnik

25-20369-6-A1

Pre-Cleaner prior to HAL


D
Fluxen:
Liefergebinde/
Supplier's tank
N2
T2
N3
400
C
□420
Micro-Etch
Waste water transfer tanks
Abwassertransfertanks
min. 500
Raum für Verrohrung
Space for Piping
16.012.0001.U21A
Klemmenkasten
Junction-box
X2
B
1450
1175
960
650
402
d=90
2xmax. 165m?/h
bei 10m/s
d=75
max. 115m?/h
bei 10m/s
min. 1000
Ausbauraum
space for
maintenance
purposes

Modul	Module		PVC/SS	PVC/SS	PP/SS	PVC/SS	PVC/SS	PVC/SS	PVC/SS
Pumpe	Pump						3x TP 0,37kW	1x TP 1,8kW	
Filter	Filter							1x 1x10"	
Filterkerze	Cartridge							1x 80μm	
Durchflußmesser	Flowmeter								
Badvolumen	Bath volume							V=185l	
Temperatur	Temperature						V=285l		
Prozeßzeit	Process time							51sec.	
Temperaturregler	Temperature control							TH	
Sicherheitsthermostat	Safety thermostat				STH			STH	
Niveaukontrolle "Stehende Welle"	Level control "immersion zone"								
Niveaukontrolle	Level control							max.	
								TG	



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1. EQUIPMENT DATA

1.1 Measurements

- Working Width	650 mm
- Working Height	900 mm +/- 15 mm
- Machine Length	2875.00 mm

1.2 Conveyor Speed

- Operation Speed	0.50 m/min
- Frequency controlled conveyor drive	yes
- Range of Conveyor Speed	0.2- 6.0 m/min

1.3 Working Direction

- Working Direction	left-right

1.4 Specification of Panels

- Maximum Panel Width	610 mm
- Maximum Panel Length	460 mm
- Minimum Panel	180 x 180 mm
- Maximum Panel Thickness	4.00 mm
- Minimum Panel Thickness	0.135 mm
- Base Material	-FR4

1.5 Notes

- The length of the connector cable from control cabinet to machine which is included in the quotation can be found under "Ancillaries". Additional required cable is available for Euro 130,- / meter.
- Process times have to be checked and released by the customer.
- As Micro-Etch chemistry, NaPS will be used
- The Micro-Etch chemistry is operated batchwise; the possibility to implement a feed-and-bleed system will be provided in the control cabinet

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2. Technical Data

2.1 Consumption Data

2.1.1 Electrical Connection Data

3 Phases Alternating Current AC	400 V +/- 10%, 50 Hz
Control Voltage	24 V DC

2.1.2 Power Input of Equipment

13.16 kW (subject to change)

2.1.3 Capacity of Equipment

~ 20 m²/h at 100 % space use

~ 15 m²/h at 75 % space use

2.2. Module Description

Item	Quantity	Description	Total price
1		**Module 001 - Input**	
1.1		**TRE 1 - 375 mm, consisting of:**	
	1	- TRE 1 PVC/SS entry module with emergency stop switch	
	1	- Exhaust Connection d=75 mm SS, TRE-TRA-TRK with 2 squeegee rollers	
	1	- Exhaust, exhaust damper for exhaust connection	
	1	- Sensor with Fixing Device	
	1	- Service Unit for electropneumatic valves with pressure reducer and pressure control	
	1	- Emergency stop, addit. rear side	
1.2		**Transport system Innerlayers for TRE 1, consisting of:**	
	1	- TRE/TRA/TRK 1 Innerlayer transport in PVC/SS	
	1	- Conveyor Drive 0.1 - 3.0 m/min continuously adjustable frequency-controlled with reluctance motor	
	1	- Digital conveyor display	
2		**Module 002 - Micro-Etch**	
2.1		**WMT 2 - 625 mm, consisting of:**	
	1	- WMT 2 PVC/SS process module with tank as substructure and lid safety interlock	
	1	- Overflow Pipe d=50	
	1	- Manual valve PVC d=50	
	1	- Dry-Run protection or level control for installation in plastic modules, without control light, for PLC applications	
	1	- Manual valve PVC d=12 ++ sample valve ++	
	1	- Inlet connection, additionally d=20	
	1	- Manual valve PVC d=20	
2.2		**Spray system for a WMT 2, consisting of:**	
	1	- WMT-WSM 2 Input pipe plastic	
	8	- Fine Line spray pipe PVC with 9 quick-release nozzles	
2.3		**Pump system, prepared for filter installation, consisting of:**	
	1	- Pump - Immersion Pump 1.8 kW prepared for the installation of a filter or pressure pipe	
	1	- Cartridge Filter - 1 x 10" filter with quick-exchange device, electrical lid control	
	1	- Filter - Filter mesh 80 µm, PP	

2.4 **Transport system Innerlayers, consisting of:**

1 - WMT 2 Innerlayer transport PVC/SS

2.5 **Temperature control, consisting of:**

1 - Electropneumatic valve PVC d=20
1 - Cooling coil SS without electropneumatic valve
1 - Heating 4.0 kW SS
1 - Thermostat with digital display, SS with Pt 100 temperature probe for hardwired machine
1 - Safety thermostat for heating or cooling without light, TÜV inspected

2.6 **Wastewater transfer tank system, consisting of**

1 - Tank - Solution Transfer Tank PP with immersion pump and level control

3 Module 003 - Cascade Rinse

3.1 **KSM 3 - 875 mm consisting of:**

1 - KSM 3 PVC/SS Cascade Rinse Module with lid safety interlock

3.2 **Cascade 1 in KSM 3, consisting of:**

2 - High impact spray pipe PVC with quick-release connections as well as 17 standard nozzles
1 - KSM 3 Innerlayer transport in PVC/SS
1 - Pump - Immersion Pump 0.37 kW without filter / COMpact filter
1 - Overflow Pipe d=50

3.3 **Cascade 2 in KSM 3, consisting of:**

2 - Spray pipe PVC straight with 9 quick-release nozzles
1 - KSM 3 Innerlayer transport in PVC/SS
1 - Pump - Immersion Pump 0.37 kW without filter / COMpact filter

3.4 **Cascade 3 in KSM 3, consisting of:**

2 - Spray pipe PVC straight with 9 quick-release nozzles
1 - KSM 3 Innerlayer transport in PVC/SS
1 - Pump - Immersion Pump 0.37 kW without filter / COMpact filter

3.5 **Inlet system for a KSM 3 module, consisting of:**

1 - Flowmeter 60 - 640 l/h, includes regulator valve
1 - Flowmeter Limit Contact min. - PLC
1 - Electropneumatic valve PVC d=20

4 Module 004 - Inspection

4.1 TRK 2 - 625 mm, consisting of:

1 - TRK 2 PVC/SS inspection module with emergency stop switch

4.2 Transport system Innerlayers for TRK 2, consisting of:

1 - TRE/TRA/TRK 2 Innerlayer transport in PVC/SS

5 Module 005 - Dryer

5.1 TKM 2 - 625 mm, consisting of:

1 - TKM 2 PP/SS Dryer with Pt 100 and Safety Thermostat

2 - Exhaust connection, d=90 without damper

5.2 Transport system Innerlayer, consisting of:

1 - TKM 2 Innerlayer transport PP/SS

5.3 Air nozzles for dryer TKM 2, consisting of:

1 - TKM Dry Jet with 2 blowers, each 3.0 kW SS, including 2 suction filters

6 Module 006 - Flux module

6.1 FLM 1 - 375 mm, consisting of:

1 - FLM 1 PVC/SS Flux module

1 - Support foot, with height adjustment

6.2 Spray system for FLM 1, consisting of:

1 - Flux unit in PVC/SS

6.3 Transport system Innerlayers, consisting of:

1 - FLM 1 Innerlayer transport in PVC/SS

1 - Flux rollers top and bottom in PVC/SS

6.4 Dosing system consisting of:

1 - Pump - Dosing pump 0 - 54 l/h with suction and pressure hose

1 - Check valve for dosing pump 25 - 54 l/h

1 - Base for dosing pump 7.2 - 120 l/h

1 - Liquid Suction Armature in PP / 50 l/h with level switch

7 Module 007 - Output

7.1 TRA 2 - 625 mm, consisting of:

1 - TRA 2 PVC/SS exit module with emergency stop switch

1 - Support foot, with height adjustment

1 - Emergency stop, addit. rear side

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EQ ZERT EN ISO 9001 ISO 9001 EN ISO 9001 ZERTIFIZIERT

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7.2			**Transport system Innerlayers for TRA 2, consisting of:**
	1	-	TRE/TRA/TRK 2 Innerlayer transport in PVC/SS
8			**Ancillaries**
	1	-	Lamp - Flash lamp 3 colours
	15	-	Cable connection to control cabinet
	1	-	Stand-by system including conveyor drive, controlled via sensor at entry
	1	-	Transfer SSL - Hong-Kong

Net value

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1. Technical Data

Machine data:

- Working Width	650 mm
- Working Height	900 mm +/- 15 mm
- Working Direction	left-right
- Range of Conveyor Speed	0,2 - 6,0 m/min
- Frequency controlled Conveyor drive	Yes

Voltage Data:

- 3 Phase Alternating Current AC	400 V +/- 10 % 50 Hz
- Control Voltage	24 V DC

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2. Quotation

2.1. Module Description

Item	Quantity	Description	To
1		**VACUMAT 808**	
1.1		**Consisting of:**	
	1	- Vaculine 808- 800 Slot-type Loader / Unloader or Buffer Station working height: 900 mm max. panel size: 650 mm capacity: 32 panels current consump. 1 kW machine length: 800 mm ncludes: Aluminium frame, driven, plastic-coated panel holders for pick-up and vertical transport of panels, cycle time infinitely variable	

Net value

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OPTION

1 - Version with 52 panels capacity (additional price)