

## Technical Information • Data Sheet

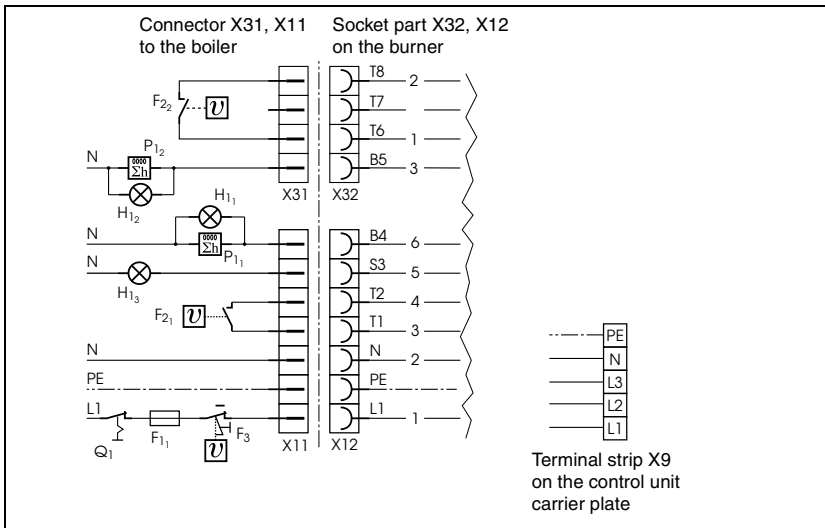
# M2-Z-L

March 2024 Edition  
Technical changes in the sense of  
product improvement reserved!

Oil



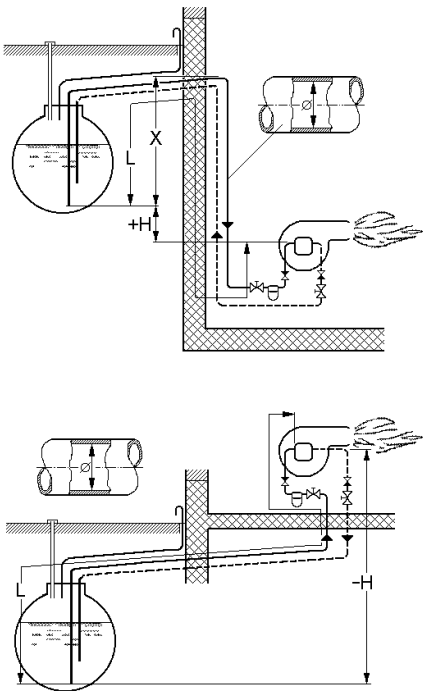
## Electrical connection



- F11 Fuse
- F21,F22 Temp. controller 1st stage/  
2nd stage
- F3 Safety temperature limiter
- Q1 Main heating switch
- H11,H12 Ext. operating lamp  
1st/2nd stage
- H13 Ext. fault message lamp
- L1,L2,L3 Phase
- PE Protective conductor
- P11,P12 Time meter
- X9 Terminal strip
- X11, X31 Male connector, boiler  
control
- X12, X32 Female connector, burner

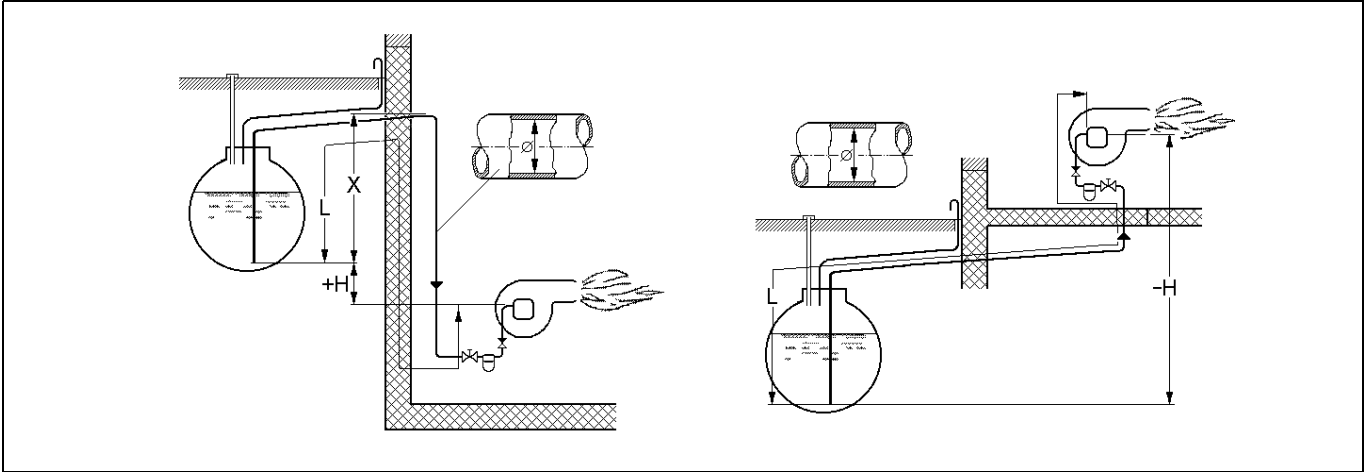
## Oil connection

### Two-pipe system



H (m)	Suntec AP2 75			Suntec AL 95		
	L (m)			L (m)		
Ø mm	8	10	12	8	10	12
4.0	42	108	150	35	92	150
3.0	36	94	150	31	81	150
2.0	31	81	150	26	69	148
1.0	26	68	144	21	57	124
0.5	23	61	130	19	52	112
0	20	54	116	16	46	100
-0.5	17	48	103	14	40	88
-1.0	15	41	89	12	34	76
-2.0	9	28	61	7	23	52
-3.0	4	14	33	0	11	28
-4.0	0	0	6	0	0	4

## Single pipe system



Nozzle Ø mm	Suntec AP2 / Suntec AL						
	12 kg/h		19 kg/h		30 kg/h		
	4	6	6	8	6	8	10
H (m)	L (m)	L (m)	L (m)	L (m)	L (m)	L (m)	L (m)
4.0	21	109	72	150	45	144	150
3.0	18	96	63	150	39	127	150
2.0	16	82	55	150	34	109	150
1.0	13	69	46	146	28	92	150
0.5	12	63	41	133	26	83	150
0	11	56	37	119	23	74	150
-0.5	9	50	33	105	20	66	150
-1.0	8	43	28	91	17	57	141
-2.0	6	30	20	64	12	40	98
-3.0	3	17	11	36	6	22	56
-4.0	0	4	2	9	0	5	13

## Technical specifications

Technical specifications	Burner type	
	M2.1-Z-L	M2.22-Z-L
Burner output in kW	237 - 830	268 - 1069
Fuel oil	EL, DIN 51603	
Mode of operation	2-Stage, 1 Nozzle	2-Stage, 2 Nozzle
Voltage	230 /400V - 50Hz	
max. current consumption	10A	
Electric motor power (at 2800rpm) in kW	1,1	
Oil pump (type)	Suntec AP2 75	Suntec AL 95
Flame failure controller	QRB3	
Control box	LAL 1.25	
Noise emission in dB (A)	≤ 75	≤ 77
Emission class	2	
NOx Limit value	< 185 mg/kWh	

## Adjustment table

M2.1-Z-L ) <sup>1</sup>									
Burner output [kW]		Nozzle	Pump pressure 2nd level [bar]	Oil throughput 2nd level [kg/h]	Pump pressure 1st level [bar]	Oil throughput 1st level [kg/h]	Dimen- sion "A" [mm]	Air damper	
2nd level	1st level							2nd lev. [°]	1st lev. [°]
325	230	5,00/60°S	20	27,5	10	19,4	3	28	13
365	260	5,50/60°S	20	30,8	10	21,9	5	33	18
405	295	6,00/60°SS	20	34,1	10	24,9	8	40	22
440	320	6,50/60°SS	20	37,1	10	27,0	10	47	27
470	345	7,00/60°SS	20	39,6	10	29,1	12	50	29
520	375	7,50/60°SS	20	43,9	10	31,6	15	60	33
565	405	8,00/60°SS	20	47,6	10	34,1	17	74	42
620	440	9,00/60°SS	20	52,3	10	37,1	19	80	50
680	475	10,0/60°SS	20	57,4	10	40,0	24	90	52
740	525	11,0/60°SS	20	62,4	10	44,2	27	98	61
800	565	12,0/60°SS	20	67,4	10	47,6	30	110	63

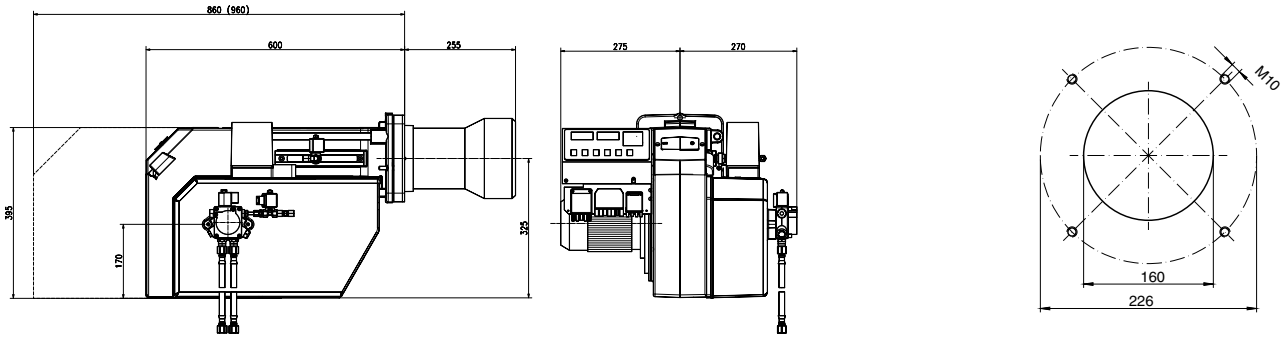
)<sup>1</sup> The setting values were determined with Steinen nozzles. Due to the spray characteristics, different combustion results can be achieved with other makes of nozzle.

If the desired performance deviates from the values given in the tables, the nozzle size and the pump pressure can be determined using the following diagram

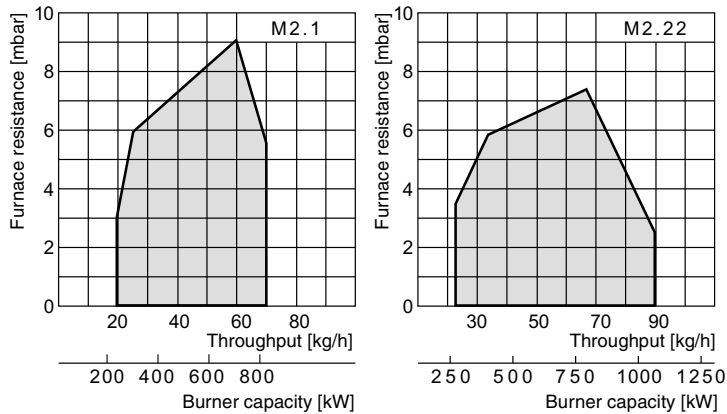
M2.22-Z-L										
Burner output [kW]		Boiler output at 93%	Nozzle 1	Nozzle 2	Pump pressure [bar]	Oil throughput 1st level [kg/h]	Oil throughput 2nd level [kg/h]	Dimen- sion „A“ [mm]	Air damper	
2nd level	1st level		1st level GPH	2nd level GPH					1st lev. [°]	2nd lev. [°]
650	410	605	6,50/60°/SS	3,50/60°/SS	20	35	55	22	30	55
710	455	660	7,00/60°/SS	4,00/60°/SS	20	37	60	27	33	63
780	455	725	7,00/60°/SS	5,00/60°/SS	20	38	66	30	42	77
850	455	791	7,00/60°/SS	6,00/60°/SS	20	38	72	33	46	92
910	455	846	7,00/60°/SS	7,00/60°/SS	20	38	77	36	50	102
970	510	902	8,00/60°/SS	7,00/60°/SS	20	43	82	43	55	115

# Overall dimensions / Boiler connection measures

(all dimensions are given in mm)



## Working ranges



Working ranges acc. to DIN EN 267.

The working ranges are relative to a height of approx. 200 m above sea level and a room temperature of 20°C.

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