

## Technical Information • Data Sheet

# R30

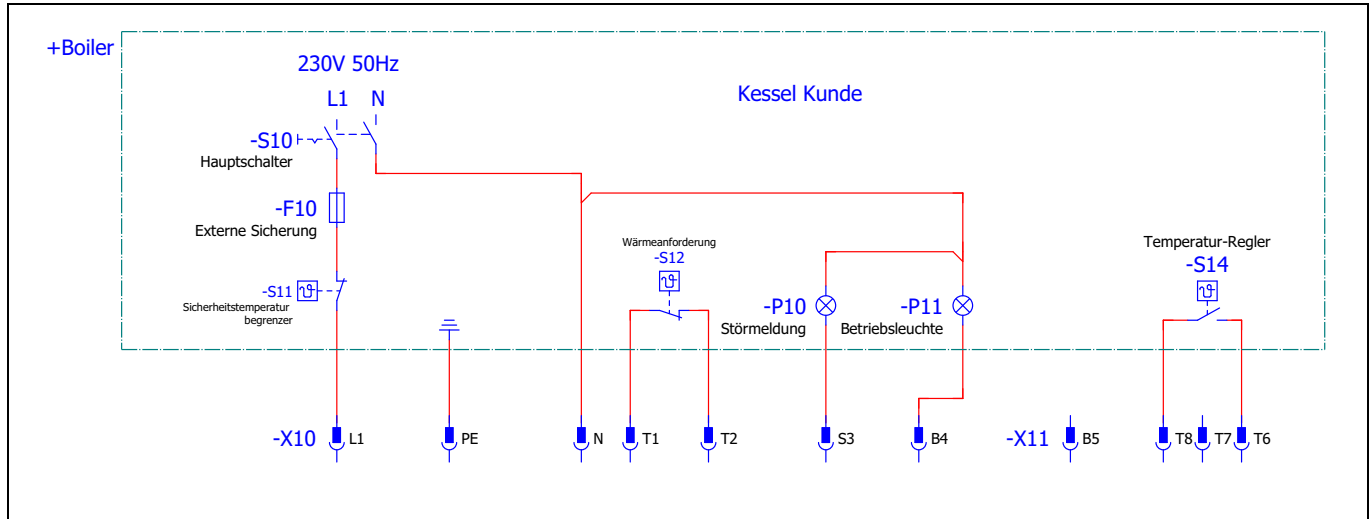
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Oil



# Electrical connections

## Connection diagram for R30-Z-L

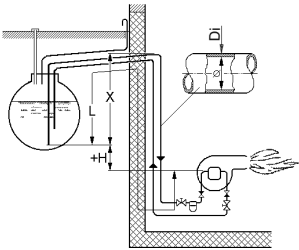


## Oil connection

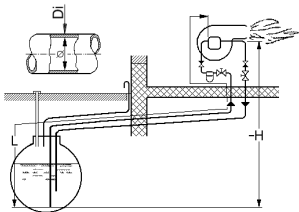
The table refers to heating oil EL 4.8 cSt and the inner diameter of the oil pipes. In the case of the suction line length 4 elbows, 1 valve and 1 check valve have been taken into consideration for the resistance. On account of possible gassing-off of the oil, dimension X should not exceed a length of 4 mtrs.

- Using the metal hoses provided connect the oil pump to the oil line.
- The pump should be connected to the feed and return lines (two-line system).
- If the tanks are positioned higher the pump can be converted to a single-line system.

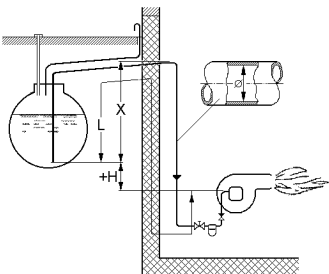
## Two-pipe system



pump	Di [mm]	H [m]								
		4	3	2	1	0	-1	-2	-3	-4
Suntec or Danfoss	6	21	18	16	13	11	8	5	-	-
	8	67	58	50	42	34	25	17	9	-
	10	100	100	100	100	82	62	42	21	-



## Single pipe system



Oil throughput [kg/h]	Di [mm]	H [m]								
		4	3	2	1	0	-1	-2	-3	-4
bis 2,5	4	77	68	58	49	40	31	22	13	-
	6	100	100	100	100	100	100	87	64	18
	8	100	100	100	100	100	100	100	100	56
2,5-5,0	4	39	34	29	25	20	16	11	6	-
	6	100	100	100	100	100	79	56	32	9
	8	100	100	100	100	100	100	100	65	28
5,0-10,0	4	19	17	15	12	10	8	-	-	-
	6	98	86	74	63	51	39	28	16	4
	8	100	100	100	100	100	100	88	51	14
10,0-23,0	6	42	37	32	27	22	17	12	7	-
	8	100	100	100	85	69	54	38	22	6

## Technical specifications

Technical data	Burner type	
	R30-AE(-WLE)	R30-Z-L(-WLE)
Burner output in kW	95 - 273	
Boiler output in kW	87 - 251	
Fuel oil	Type EL, to DIN51603	
Method of operation	1-stage with startup relief	2-stage
Voltage	1 / N / PE ~50 Hz / 230 V	
Current consumption Max. start / operation in A	2.8 / 1.6	
Electric motor (2850rpm) in W	250	
Oil pump in l/h	70	
Photoelectric cell	QRB4	
Control box	LMO24	
Weight in kg	29	
Noise emission in db(A)	≤ 73	
Gasburner class	3	
NOx Limit value	≤ 120 mg/kWh	

## Adjustment tables

### R30-AE

Burner output	Boiler output where $\eta_k = 92\%$	Nozzle size	Nozzle spray angle	Oil pump pressure*	Oil throughput	Nozzle stem position dimension "A"	Nozzle stem position dimension "B"
[kW]	[kW]	[gph]	[°]	[bar]	[kg/h]	[mm]	[mm]
100	92	1.75	45°S	15	8.5	43	21
115	106	2.00	45°S	15	9.7	38	24
130	120	2.25	45°S	15	11.0	35	30
150	138	2.50	45°S	15	12.7	33	33
160	147	2.75	45°S	15	13.5	32	36
180	166	3.00	45°S	15	15.2	30	38
220	202	3.75	45°S	15	18.6	26	50
255	235	4.50	45°S	15	21.5	18	85
280	258	5.00	45°S	15	23.6	11	85

\*Startup relief pressure 12 bar

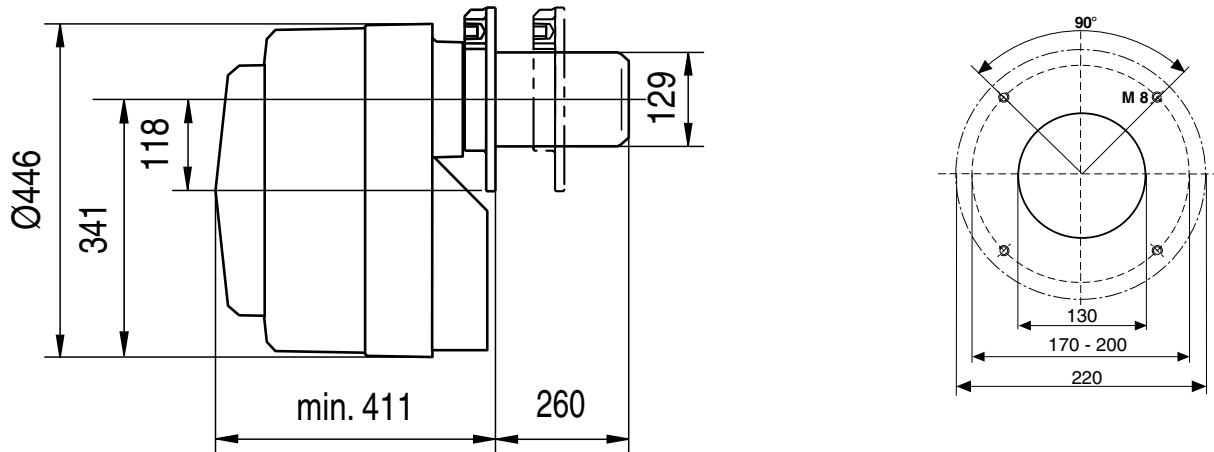
### R30-Z-L

Burner output		Boiler output where $\eta_k=92\%$	Nozzle size	Nozzle spray angle	Oil pump pressure		Oil throughput		Nozzle stem position dimension "A" [mm]	Air throttle position dimension "B" [mm]	Servomotor			
ST2 [kW]	ST1 [kW]				ST2 [bar]	ST1 [bar]	ST2 [kg/h]	ST1 [kg/h]			ST0	ST2	MV2	ST1
143	102	132	2.25	45°S	20	10	12.0	8.6	32-36	38-40	0	115	55	45
160	113	147	2.50	45°S	20	10	13.4	9.5	30-33	42-44	0	115	60	50
176	124	162	2.75	45°S	20	10	14.8	10.4	28-31	44-46	0	115	60	50
195	138	179	3.00	45°S	20	10	16.4	11.6	25-28	43-47	0	115	65	55
217	156	200	3.50	45°S	20	10	18.2	13.1	22-25	52-56	0	115	65	55
247	179	227	4.00	45°S	20	10	20.8	15.0	14-18	59-63	0	115	75	60
273	203	254	4.50	45°S	20	10	23.0	17.1	5-7	88-92	0	115	80	65

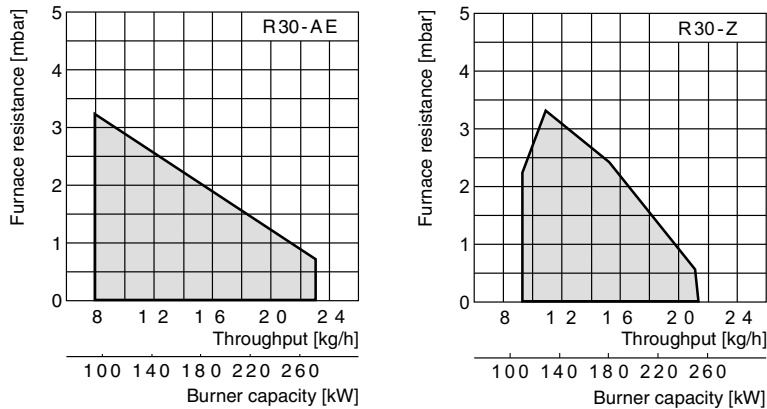
The setting values were determined using Danfoss nozzles.

## Burner overall dimensions / boiler connection dimensions

All dimensions in mm



## Working ranges



Working fields tested in accordance with DIN EN 267. The working fields refer to an altitude of approx. 200 m above sea level and a room temperature of 20°C.

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