

**TECHNICAL DATA forced circulation steam generators - operation without continuous supervision for 72 hours**

Rev.Feb.17th, 2016

DATI TECNICI generatori di vapore a circolazione forzata - esercizio senza supervisione continua per 72 ore

GMT Horizontal

Type		GMT 12	GMT 20	GMT 30	GMT 40	GMT 50	GMT 60	GMT 80	GMT 100	GMT 120	GMT 150	GMT 180	GMT 200	GMT 250	GMT 300	GMT 400	GMT 500	GMT 600	GMT 700	GMT 800
Steam production	kg/h	120	200	300	400	500	600	800	1.000	1.200	1.500	1.800	2.000	2.500	3.000	4.000	5.000	6.000	7.000	8.000
Steam production (from and at)	kg/h	133	222	333	444	556	667	889	1.111	1.333	1.667	2.000	2.222	2.778	3.333	4.444	5.556	6.667	7.778	8.889
	lb/h	294	490	735	980	1.224	1.469	1.959	2.449	2.939	3.673	4.408	4.898	6.122	7.347	9.796	12.244	14.693	17.142	19.591
Capacity	kcal/h	72.000	120.000	180.000	240.000	300.000	360.000	480.000	600.000	720.000	900.000	1.080.000	1.200.000	1.500.000	1.800.000	2.400.000	3.000.000	3.600.000	4.200.000	4.800.000
	kW	84	140	209	279	349	419	558	698	837	1.047	1.256	1.396	1.745	2.093	2.791	3.489	4.187	4.885	5.582
	Btu/h	285.707	476.179	714.268	952.357	1.190.447	1.428.536	1.904.715	2.380.894	2.857.072	3.571.340	4.285.608	4.761.787	5.952.234	7.142.681	9.523.574	11.904.468	14.285.362	16.666.255	19.047.149
Design pressure	HP	112	187	281	374	468	561	749	936	1.123	1.404	1.684	1.871	2.339	2.807	3.743	4.679	5.614	6.550	7.486
	bar	11,76	11,76	11,76	11,76	11,76	11,76	11,76	11,76	11,76	11,76	11,76	11,76	11,76	11,76	12,00	12,00	12,00	12,00	12,00
Efficiency without economizer	psi	171	171	171	171	171	171	171	171	171	171	171	171	171	171	174	174	174	174	174
	% ±1	93,0	92,0	91,0	91,0	90,0	91,0	91,0	90,0	89,0	90,0	90,0	89,0	90,0	89,0	89,0	90,0	90,0	90,0	90,0
Efficiency with economizer	% ±1	96,0	95,0	94,0	94,0	93,0	94,0	94,0	93,0	92,0	93,0	93,0	92,0	93,0	92,0	92,0	93,0	93,0	93,0	93,0
Water content	liters	27	27	27	38	38	72	84	124	124	194	250	250	250	250	570	899	1.095	1.250	1.196
Heated surface	m²	6,13	6,13	6,13	8,80	8,80	13,80	15,20	18,40	18,40	23,80	30,70	30,70	41,00	41,00	59,50	83,00	96,00	111,00	132,00
Smokes temperature (natural gas)	°C	230	234	236	236	238	236	236	238	240	238	238	240	238	240	240	238	238	238	238
Smokes temperature with economizer	°C	170	174	176	176	178	176	176	178	180	178	178	180	178	180	180	178	178	178	178
Furnace volume	m³	0,096	0,096	0,096	0,138	0,138	0,263	0,290	0,322	0,322	0,673	0,815	0,815	1,421	1,421	2,205	4,149	5,237	6,513	7,782
Furnace thermal load	kcal/hm²	804.223	1.354.940	2.054.744	1.908.666	2.412.342	1.501.674	1.819.188	2.071.256	2.513.434	1.486.786	1.472.123	1.654.071	1.172.747	1.423.109	1.223.063	803.373	763.767	716.514	685.345
Furnace pressure drop	mm H <sub>2</sub> O	20	20	30	35	35	40	40	70	90	80	80	80	90	90	100	110	115	120	125
Furnace diameter	mm	390	390	390	390	390	500	500	480	480	620	620	620	770	770	910	1.245	1.245	1.245	1.490
Furnace total length	mm	806	806	806	1.157	1.157	1.342	1.477	1.779	1.779	2.228	2.700	2.700	3.052	3.052	3.390	3.408	4.302	5.350	4.463
Internal Coil Pipes Diameter	mm	26,7	26,7	26,7	26,7	26,7	38,0	38,0	42,4	42,4	60,3 / 48,3	60,3 / 48,3	60,3 / 48,3	38	38	60,3	73 / 60,3	73 / 60,3	73 / 60,3	73 / 60,3
Internal Coil Pipes Thickness	mm	2,87	2,87	2,87	2,87	2,87	3,20	3,20	3,20	3,20	3,91 / 3,68	3,91 / 3,68	3,91 / 3,68	3,2	3,2	3,9	5,16 / 3,91	5,16 / 3,91	5,16 / 3,91	5,16 / 3,91
External Coil Pipes Diameter	mm	26,7	26,7	26,7	26,7	26,7	26,7	26,7	33,7	33,7	38,0	38,0	38,0	33,4	33,4	48,3	48,3	48,3	48,3	48,3
External Coil Pipes Thickness	mm	2,87	2,87	2,87	2,87	2,87	2,87	2,87	3,20	3,20	3,20	3,20	3,20	3,38	3,38	3,6	3,68	3,68	3,68	3,68
Smoke passes scheme		GMT-35	GMT-35	GMT-35	GMT-35	GMT-35	GMT-35	GMT-35	GMT-35	GMT-35	GMT-31	GMT-31	GMT-31	GMT-31	GMT-34	GMT-34	GMT-18	GMT-18	GMT-18	GMT-18
P & I standard		PID 1369 R0	PID 1369 R0	PID 1369 R0	PID 1369 R0	PID 1369 R0	PID 1369 R0	PID 1369 R0	PID 1369 R0	PID 1369 R0	PID 1369 R0	PID 1369 R0	PID 1369 R0	PID 1369 R0	PID 1369 R0	PID 1369 R0	PID 1369 R0	PID 1369 R0	PID 1369 R0	PID 1369 R0
Boiler room P & I standard		PID 1370 R1	PID 1370 R1	PID 1370 R1	PID 1370 R1	PID 1370 R1	PID 1370 R1	PID 1370 R1	PID 1370 R1	PID 1370 R1	PID 1370 R1	PID 1370 R1	PID 1370 R1	PID 1370 R1	PID 1370 R1	PID 1370 R1	PID 1370 R1	PID 1370 R1	PID 1370 R1	PID 1370 R1
External drawing 80°C	INTERPUMP	04-0138 R5	04-0231 R3	04-0232 R3	GMT 1086 R0	GMT 1085 R2	GMT 1140 R1	GMT 1154 R1	GMT 1078 R0	GMT 1079 R1	GMT 1149 R0	GMT 1082 R0	GMT 1076 R0	GMT 1304 R0	GMT 1070 R0	GMT 1177 R0	04-0171 R4	04-0183 R2	GMT 1390 R1	GMT 1074 R0
External drawing 105°C	SPECK	07-0511 R1	07-0512 R1	07-0513 R1	07-0514 R1	07-0516 R1	07-0517 R1	07-0519 R1	GMT 1012 R0	07-0521 R1	04-0003 R1		07-0506 R1		06-0016 R4	GMT 1302 R0	06-0021 R1			
External drawing Automatic Start-Up		06-0152 R2	06-0152 R2	06-0152 R2	06-0152 R2	06-0152 R2	06-0151 R2	06-0150 R2	06-0149 R2	06-0149 R2	06-0148 R2	06-0148 R2	06-0148 R2	06-0147 R2	06-0147 R2	PID 1125 R0	06-0022 R3	06-0022 R3		
External drawing with economiser																				
P & I Automatic Start-Up		PID 1167 R0	PID 1167 R0	PID 1167 R0	PID 1167 R0	PID 1167 R0	PID 1167 R0	PID 1167 R0	PID 1167 R0	PID 1167 R0	PID 1167 R0	PID 1167 R0	PID 1167 R0	PID 1167 R0	PID 1167 R0	PID 1167 R0	PID 1167 R0	PID 1167 R0	PID 1167 R0	PID 1167 R0
P & I for Russia, Ukraine		GNS 031-05	GNS 010-05	GNS 010-05	GNS 010-05	GNS 010-05	GNS 011-05	GNS 011-05	GNS 011-05	GNS 011-05	GNS 011-05	GNS 011-05	GNS 011-05	GNS 011-05	GNS 011-05	GNS 011-05	GNS 011-05	GNS 011-05	GNS 011-05	GNS 011-05
Electrical diagram																				
Electrical diagram modulating																				
Installation length (burner excluded)	mm	1.750	1.750	1.750	1.750	1.750	2.300	2.300	2.300	2.300	3.350	3.350	3.350	3.700	4.100	4.400	4.750	5.150	5.400	5.550
Installation length (burner included)	mm	2.300	2.300	2.300	2.300	2.300	2.900	2.900	2.900	2.900	4.150	4.150	4.150	4.800	5.200	5.750	5.850	5.850	5.850	5.850
Installation width	mm	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.700	1.700	1.700	1.850	1.850	2.200	2.500	2.500	2.500	3.200
Installation height	mm	1.650	1.650	1.650	1.650	1.650	1.700	1.700	1.750	1.750	2.000	2.100	2.100	2.100	2.200	2.200	2.700	2.600	2.600	2.500
Empty weight (burner excluded)	kg	750	750	750	850	850	1.100	1.100	1.250	1.250	1.800	2.100	2.100	2.900	3.000	3.850	6.600	7.000	7.700	9.000
Chimney dimension	DIN 86044	ø180	ø180	ø180	ø180	ø180	ø250	ø250	ø250	ø250	ø350	ø350	ø350	ø350	ø450	ø550	ø550	ø550	ø650	ø700
Steam outlet valve		DN32 PN16	DN32 PN16	DN32 PN16	DN32 PN16	DN32 PN16	DN40 PN16	DN40 PN16	DN50 PN16	DN50 PN16	DN50 PN16	DN65 PN16	DN65 PN16	DN80 PN16	DN80 PN16	DN100 PN16	DN100 PN16	DN100 PN16	DN100 PN16	DN150 PN16
Safety valve discharge		Nr.1 ø1"	Nr.1 ø1"	Nr.1 ø1"	Nr.1 ø1"	Nr.1 ø1"	Nr.1 ø1"	Nr.1 ø1"	Nr.1 ø1 1/2"	Nr.1 ø1 1/2"	Nr.1 ø1 1/2"	Nr.1 ø1 1/2"	Nr.1 ø1 1/2"	Nr.1 ø2 1/2"	Nr.1 ø2 1/2"	Nr.2 DN40 PN16	Nr.2 DN40 PN16	Nr.2 DN40 PN16	Nr.2 DN40 PN16	Nr.2 DN50 PN16
Required water inlet diameter		ø1"	ø1 1/4"	ø1 1/2"	ø1 1/2"	ø2"	ø2"	ø2"	ø2 1/2"	ø2 1/2"	ø3"	ø3"	ø3"	2 x ø2 1/2"	2 x ø3"	2 x ø3"	2 x ø3"	2 x ø4"	2 x ø4"	2 x ø4"
Transport length (burner excluded)	mm	1.750	1.750	1.750	1.750	1.750	2.300	2.300	2.300	2.300	3.350	3.350	3.350	3.700	4.100	4.400	4.750	5.150	5.400	5.550
Transport length (burner included)	mm	2.300	2.300	2.300	2.300	2.300	2.900	2.900	2.900	2.900	4.150	4.150	4.150	4.800	5.200	5.750	5.850	5.850	5.850	5.850
Transport width	mm	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.700	1.700	1.700	1.850	1.850	2.200	2.500	2.500	2.500	3.200
Transport height	mm	1.650	1.650	1.650	1.650	1.650	1.700	1.700	1.750	1.750	2.000	2.100	2.100	2.100	2.200	2.200	2.700	2.600	2.600	2.500
Transport weight (burner excluded)	kg	750	750	750	850	850	1.100	1.100	1.250	1.250	1.800	2.100	2.100	2.900	3.000	3.850	6.600	7.000	7.700	9.000
Feeding pump capacity required	kg/h	120	200	300	400	500	600	800	1.000	1.200	1.500	1.800	2.000	2 x 1250	2 x 1500	2 x 2000	2 x 2500	2 x 3000	2 x 3500	2 x 4000
Model	INTERPUMP	WS 82	WS 82	WS 82	WS 82	WS 82	WS 82	WS 82	WS 82	WS 104	WS 104	WS 135	WS 135	2 x WS 104	2 x WS 104	2 x WS 135	2 x HT 6968	2 x HT 6968	2 x W 827	2 x W 827
Motor		0,75HP / 8 pole	0,75HP / 8 pole	1HP / 6 pole	1HP / 6 pole	1HP / 8 pole	2HP / 8 pole	2HP / 8 pole	2HP / 6 pole	2HP / 8 pole	3HP / 6 pole	3HP / 6 pole	4HP / 6 pole							

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DATI TECNICI generatori di vapore a circolazione forzata - esercizio senza supervisione continua per 72 ore

GMT Horizontal

Type		GMT 12	GMT 20	GMT 30	GMT 40	GMT 50	GMT 60	GMT 80	GMT 100	GMT 120	GMT 150	GMT 180	GMT 200	GMT 250	GMT 300	GMT 400	GMT 500	GMT 600	GMT 700	GMT 800
Pump connection (connect with water inlet dia.)		1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	3/4"	3/4"	3/4"	2 x 1/2"	2 x 3/4"	2 x 3/4"	2 x 1"	2 x 1 1/4"	2 x 1 1/4"	2 x 1 1/4"
Burned power	kW	96	160	241	321	401	481	642	802	963	1.203	1.444	1.605	2.006	2.407	3.209	4.012	4.814	5.616	6.419
Burner head length	mm	170	170	170	170	170	210	210	250	250	300	300	300	350	350	350	350	400	400	400
Furnace pressure drop	mbar	2,0	2,0	3,0	3,5	3,5	4,0	4,0	7,0	9,0	8,0	8,0	8,0	9,0	9,0	10,0	11,0	11,5	12,0	12,5
Natural Gas Burner 2/3 flames	RIELLO	BS 3 D tl	BS 3 D tl	RS 5D tc	RS 5D tc	RS 44 MZ tc	RS 50 tc	RS 70 tc	RS 100 tc	RS 100 tc	RS 130 tc	RS 190 tc	RS 190 tc							
Natural Gas Burner modulating	RIELLO		RS 34/M MZ tc	RS 34/M MZ tc	RS 34/M MZ TC	RS 44/M MZ tc	RS 50/M tc	RS 64/M tc	RS 100/M tc	RS 100/M tc	RS 130/M tc	RS 190/M tc	RS 190/M tc	RS 250/M	RS 250/M	RS 310/M MX tc	RS 410/M MX tc	RS 610/M MX tc	RS 800/M BLU tc	RS 800/M BLU tc
Natural Gas Burner - installation power	kW	0,35	0,35-0,6	0,45-0,6	0,45-0,6	0,75	0,75	1,40	1,80	1,80	2,60	5,50	5,50	6,50	6,50	6,00	14,00	24,00	24,00	24,00
Smokes flow (excess air: 16%)	Nm <sup>3</sup> /h	124	207	310	413	517	620	835	1.045	1.252	1.568	1.881	2.091	2.614	3.135	4.180	5.226	6.272	7.317	8.362
CO2 (excess air: 16%)	%	10,15	10,15	10,15	10,15	10,15	10,15	10,15	10,15	10,15	10,15	10,15	10,15	10,15	10,15	10,15	10,15	10,15	10,15	10,15
Diesel Oil Burner 2/3 flames	RIELLO	RG 3 D tl	RG 4 D tl	RL 34 MZ tc	RL 34 MZ tc	RL 44 MZ tc	RL 50 tc	RL 64 tc	RL 70 tc	RL 100 tc	RL 130 tl	RL 130 tl	RL 190 tc	RL 190 tc	P 300 T/G tc	P 450 T/G tc	P 450 T/G tc			
Diesel Oil Burner modulating	RIELLO		RL 28/M tc	RL 28/M tc	RL 28/M tc	RL 38/M tc	RL 50/M tc	RL 70/M tc	RL 70/M tc	RL 100/M tc	RL 130/M tl	RL 130/M tl	RL 190/M tc	RL 190/M tc	P 300 P/G tc	P 450 P/G tc	P 450 P/G tc	RL 800/M tc	RL 800/M tc	RL 1000/M tc
Burner support plate	GN code		DIS103PIA00R00	DIS103PIA00R00	DIS103PIA00R00	DIS103PIA00R00		DIS121PIA00R00	DIS121PIA00R00											
Diesel Oil Burner - installation power	kW	0,39	0,6-0,37	0,6-0,37	0,6-0,37	0,7-0,6	0,75	1,40	1,40	1,80	2,60	5,87	5,87	10,00	15,00	15,00	15,00	18,00	18,0	22,0
Smokes flow (excess air: 20%)	Nm <sup>3</sup> /h	113	190	285	380	475	571	760	950	1.140	1.426	1.711	1.902	2.372	2.851	3.802	4.753	5.703	6.655	7.604
CO2 (excess air: 20%)	%	12,60	12,60	12,60	12,60	12,60	12,60	12,60	12,60	12,60	12,60	12,60	12,60	12,60	12,60	12,60	12,60	12,60	12,60	12,60
Heavy Oil Burner 2/3 flames	RIELLO			P 30N/ECO tc	P 45N/ECO tc	P 60N/ECO tc	P 60N/ECO tc	P 100N/ECO tl	P 100N/ECO tl	P 140 T/N tc	P 140 T/N tc	P 200 T/N tc	P 200 T/N tc	P 200 T/N tc	P 300 T/N tc	P 450 P/N tc	P 450 P/N tc	P 450 P/N tc	P 450 P/N tc	P 450 P/N tc
Heavy Oil Burner modulating	RIELLO																			
Burner support plate	GN code																			
Heavy Oil Burner - installation power	kW			3,40	3,60	5,50	5,50	9,00	9-19	19,00	19,00	20,00	20,00	20,00	30,00	30,00	34,00	34,00		
Smokes flow (excess air: 20%)	Nm <sup>3</sup> /h	114	190	285	380	476	571	761	951	1.141	1.427	1.712	1.902	2.378	2.853	3.804	4.755	5.706	6.658	7.609
CO2 (excess air: 20%)	%	13,20	13,20	13,20	13,20	13,20	13,20	13,20	13,20	13,20	13,20	13,20	13,20	13,20	13,20	13,20	13,20	13,20	13,20	13,20
Natural Gas Burner (modulating)	Weishaupt	WG10N/1-D Z-LN	WG20N/1-C Z-LN	WG30N/1-C ZM-LN	WG40N/1-A ZM-LN	WG40N/1-A ZM-LN	WG40N/1-A ZM-LN	WM-G10/3-A ZM	WM-G10/3-A ZM	G7/1-D ZD	G7/1-D ZD	G7/1-D ZD	G8/1-D ZD	G9/1-D ZMD	G9/1-D ZMD	G10/1-D ZMD	G50/2-A ZM-NR	G60/2-A ZM-NR	G70/1-B ZM-NR	G70/2-A ZM-NR
Burner support plate	GN code	DIS120PIA00R00	DIS120PIA00R00	DIS120PIA00R00				DIS114PIA00R00	DIS114PIA00R00											
Natural Gas Burner - installation power	kW																			
Diesel Oil Burner (2/3 flames)	Weishaupt		WL20/2-C Z	WL30Z-C	WL40Z-A	WL40Z-A	WL40Z-A	WM-L10/3-A T	WM-L10/4-A T	L7Z D	L7Z D	L7Z D	L7Z D	L8Z/2 D	L9Z D	L10T D				
Burner support plate	GN code		DIS120PIA00R00	DIS120PIA00R00																
Diesel Oil Burner - installation power	kW																			
Diesel Oil Burner (modulating)	Weishaupt							RL5 ZMD	RL5 ZMD	RL7 ZMD	RL7 ZMD	RL7 ZMD	RL7 ZMD	RL8/2 ZMD	RL9 ZMD	RL10 ZMD	RL11 ZMD	RL50/2-A ZM	RL60/2-A ZM	RL70/1-A ZM
Diesel Oil Burner - installation power	kW																			
Heavy Oil Burner (2/3 flames)	Weishaupt									MS7Z D	MS7Z D	MS7Z D	MS7Z D	MS8Z/2 D	MS9Z D					
Heavy Oil Burner - installation power	kW																			
Heavy Oil Burner (modulating)	Weishaupt									RMS7 ZMD	RMS7 ZMD	RMS7 ZMD	RMS7 ZMD	RMS8 ZMD	RMS9 ZMD	RMS10 ZMD	RMS11 ZMD	RMS50/2-A ZM	RMS60/2-A ZM	RMS70/1-A ZM
Heavy Oil Burner - installation power	kW																			

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