

Teamlec SIMPLY BETTER



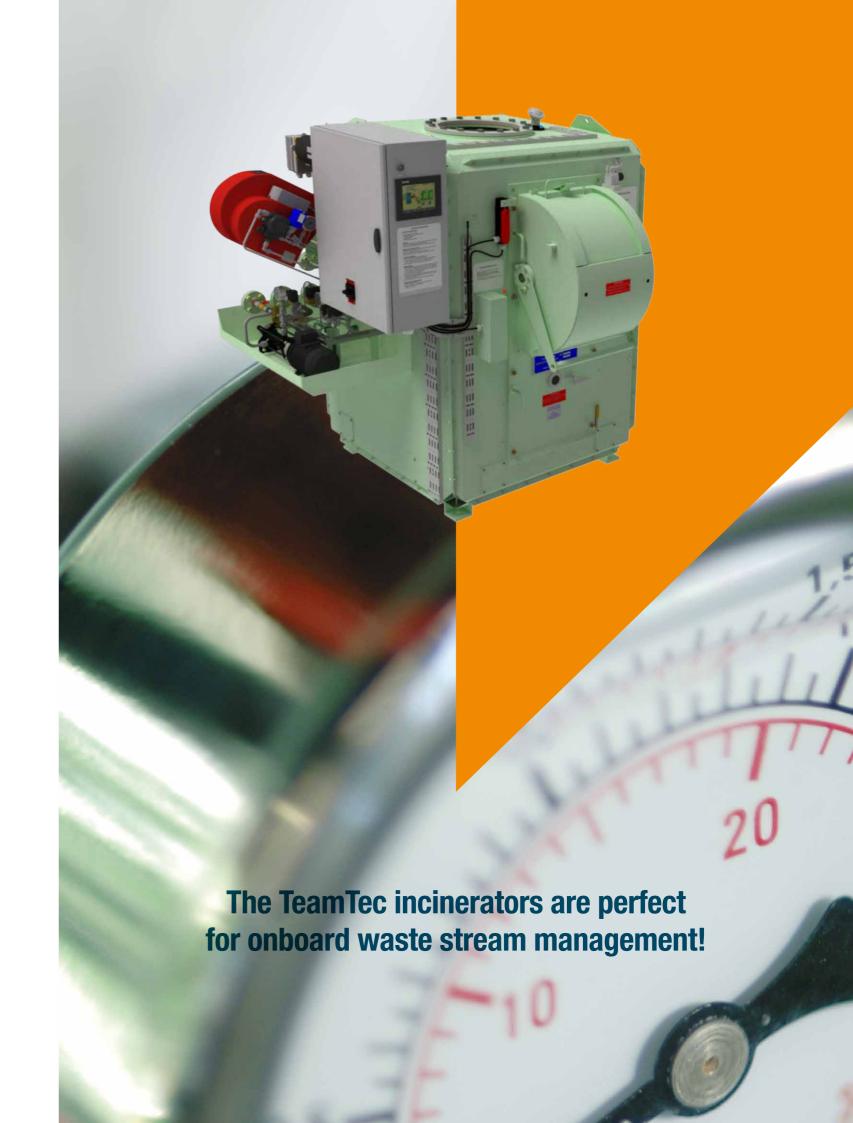
INCINERATORS

TeamTec

Norwegian traditions – a business with deep roots

TeamTec is continuing a tradition of marine industrial activity at Tangen in Tvedestrand, Norway, dating back to around 1700. Today our company is one of the world leaders in marine waste incinerating systems and stripping ejectors to the shipbuilding industry. TeamTec was founded on May 17, 1984 by a small group of enthusiastic pioneers. Their enthusiasm and passion is carried forward by the entire TeamTec staff, and we are confident that our products will continue to be in the forefront of international marine technology in the future. We are proud to supply our quality products to a demanding shipping and offshore market.





TEAMTEC INCINERATORS

INCINERATION IS AN EFFICIENT METHOD FOR HANDLING SOLID AND LIQUID WASTE, MAINLY ONBOARD VESSELS AND AT OFFSHORE INSTALLATIONS, BUT ALSO USED ON-SHORE.

TEAMTEC INCINERATOR ADVANTAGES:

- · Automatic control and operation (no filters, no strainers, self cleaning nozzle)
- Low maintenance cost
- Minimum fuel consumption
- . Modular construction with a compact and sturdy design
- Easy retrofit equipment package
- Top professional service engineers for commissioning and start-ups
- · A large stock of genuine spare parts
- Customized documentation

TEAMTEC INCINERATORS ARE INSTALLED ON/AT:

- All major shipping companies
- All major cruise lines
- Navy fleets and Coast Guards world wide
- · Floating and fixed production units
- Offshore and specialized vessels
- Land based power plants
- Holiday resorts

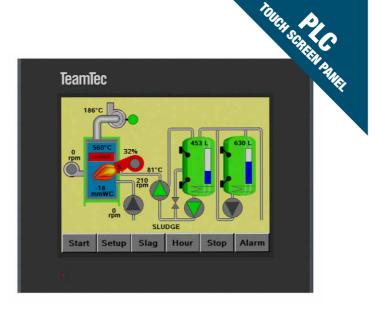


INCINERATOR MODELS

THE TEAMTEC INCINERATORS ARE CERTIFIED IN COMPLIANCE WITH:

- IMO-RESOLUTION MEPC. 244(66) adopted April 4th 2014, previous 76(40)
- "Standard Specifications of Shipboard Incinerators"
- IMO MARPOL ANNEX VI, adopted 26. September 1997
- Type approved by:
 DNV GL, ABS, BV, LRS, CCS, NKK,
 (USCG), RMRS and RRR

















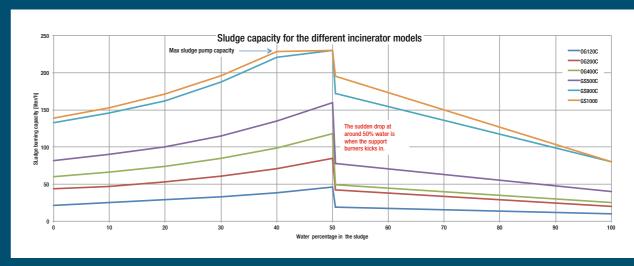




CAPACITY OVERVIEW

CRITERIA FOR SELECTION OF PROPERLY SIZED **INCINERATOR AND SLUDGE TANK:**

- Sludge tank capacity: 2 % / 0.5 % of ship's HFO/MGO consumption per 24 hrs
- Incinerator capacity: Sludge capacity sufficient to burn 1 % / 0.25 % of ship's HFO/MGO consumption per 24 hrs during 8-12 hrs/day operation
- Solid waste generation: 2 kg/person/day (ranges 1 2.5)



Incinerator Model	Version	Thermal Capacity		Capacity (IMO spec. 20% water)	SOLID WA	SOLID WASTE			WATER (Optional)		EL. POWER	DIMENSIONS			APPROX. WE	APPROX. WEIGHT		RECOMMENDED TANK(S)	
			Max Thermal Capacity [kW]		Solid waste batch feeding capacity [l/load]	Kg/load (IMO spec, 130 kg/m3)	Sluice Load [I/load]	Solid Waste Capacity Range [kg/h]	Bilge water [l/h]	Approx. Diesel [kg/h] or [kg]	App. rated el. Power (440V/60Hz) kw	Incinerator L x W x H [mm]	Minimum maintenance space LxWxH [mm]	Flue gas duct DN	Incinerator chamber [kg]	Flue gas fan [kg]	Sludge tank(s) [liters]	Diesel oil tank liters	
0G120C C CW	С	190.000	220	29	200	26				11*	11	1033x1445x1836	2350x2060x2200	200	1450	175	700	400	
	CW									10	7	1013x1445x1834	2350x2060x2200		1350				
0G200C	C**	400.000	465	53 (70**)	400	52			127	7*	15	1350x1900x1960	2400x2475x2200	300	3055	326	1100	400	
	CW	(541.900**)	(630**)							20	12	1350x1900x1960	2400x2400x2200		3000				
	CS**			53 (70**)			50	20-50	127	7*	15	1697x1900x1960	2400x2475x2200		3305		1100		
	CSW									20	12	1697x1900x1960	2400x2400x2200		3200				
0G400C	C**	512000	596	74 (81**)	400	52			140	14*	15	1350x1900x1960	2400x2475x2200	350	3055	330	1700	400	
	CW	(625.300**)	(727**)							28	12	1350x1900x1960	2400x2400x2200		3000				
	CS**			74 (81**)			50	20-50	140	14*	15	1697x1900x1960	2400x2475x2200		3305		1700		
	CSW				1					28	12	1697x1900x1960	2400x2400x2200		3200				
GS500C	CS**	731.000	850	100 (120**)	500	65	125	50-135	153	16*	27	2457x1902x2117	3300(2450***)x2420x2200	400	4645	526	2000	400	
	CSW	(775.000**)			1					36		2457x1902x2117	3300(2450***)x2420x2200		4640				
	CGSW		791					60-150			35	2937x1902x2167	3790x2440x2200		4800			400 or 700	
	CFGSW		808					75-200			55	4587x2869x2172	6050x2800x2300		6730			700 or 1100	
GS500CIC	CICS	800.000	930	105	500	65	125	50-135		36	31	2457x1902x2117	3300(2450***)x2420x2200	400	4600	541	2000	400	
GS900C	CX	1 177 300	1369	162	600	78	125			25*	45	2926x1807x2140	3740x2450x2200	500/600	4400	800	2000 (+ 3000)	400	
	CSRX							50-135				2926x1914x2583	3740x2450x2650		4890				
GS1000C	CX	1 290 000	1500	171	600	78	125		237	25*	45	2926x1807x2140	3740x2450x2200	500/600	4450	800	2000 + 3000	400	
	CSRX							50-135				2926x1914x2583	3740x2450x2650		4950				

VERSION CODES:

- CODE FEATURE DESCRIPTION

 C Standard Computerized automation/control (PLC)

 D Dual sludge tank, recommended for GS900C/GS1000C

 F Auto feeding of solid waste (hopper, shredder, screw feeder)

 G Stirrer for solid waste

I Water injection
IC Increased capacity
S/RS Sluice for solid waste
W Incinerator for solid waste only
X Large single door opening

VERSION CODES - POSSIBLE ADDITIONAL FEATURES:

- CODE FEATURE DESCRIPTION

 A Ampere meter for flue gas fan

 B Diesel oil booster pump

 K Cooling of control cabinet

 L Sludge tank level readout in display panel

 M Flue gas fan motor heater

 P Sludge transfer pump

 T Diesel oil transfer pump

 V Frequency controlled flue gas fan

 Z CCS centr. control station twin display

- Expected daily consumption when burning sludge with less than 50 % water content
 With optional bilge water injection (I)
 Front sided sluice solution





BILGE WATER INJECTION FOR TEAMTEC INCINERATORS

Purpose and Benefits

- Supplement to the OWS
- · Developed primarily for disposal of bilge water
- · Increased sludge burning capacity
- Reduced NOx emission
- No filters or strainers
- No chemicals
- No more "magic pipes"
- Inexpensive
- IMO certified
- Quick and simple upgrading of existing incinerators



SLUDGE PREPARATION TANK

Sludge heating/mixing tanks

For the best economical operation and optimal efficiency of any incinerating plant we recommend installing two cylindrical sludge tanks allowing for proper water settling and drainage. One tank is used for settling and the second is the service tank. All TeamTec tanks are complete with sludge circulation pump, level switches and thermostat.









HEATING OPTIONS:





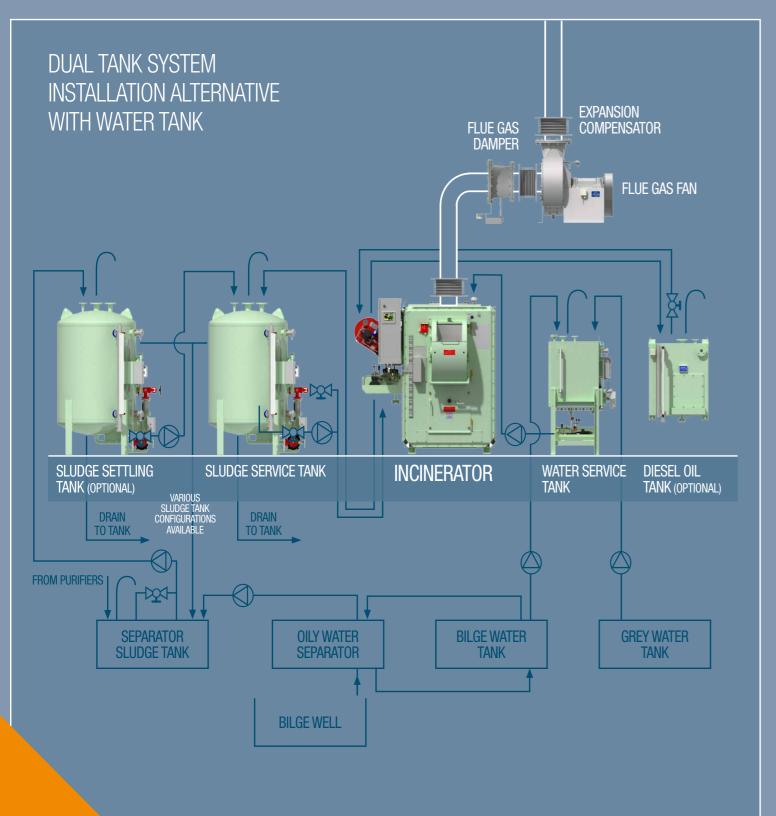


OPTIONAL SUPPLEMENTS:

- Level transmitter for read out on incinerator display
- TeamTec water in oil monitor for a perfect control of your sludge oil quality, available upon request

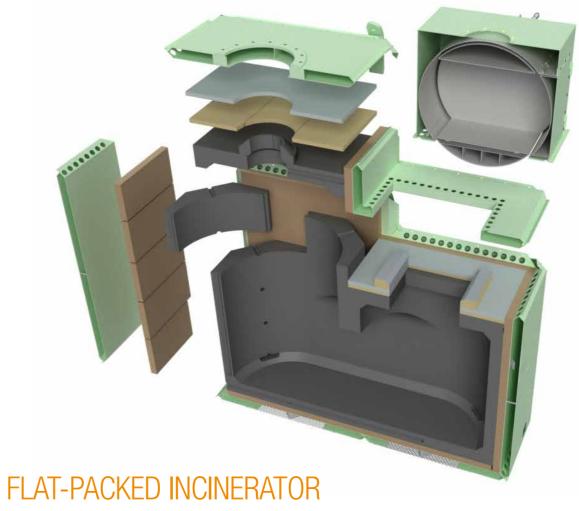
Туре	Heating by steam - thermal oil	Heating by el. power	Circ. pump el. power	L x W x H mm	kg
435 I				1528 x 905 x 1767	370
700 I		12 kW		1422 x 836 x 2016	500
1100 l	50 kg/h - 6-10 bar		2,5 kW	1632 x 1251 x 2050	500
1700 I			2,5 KW	1905 x 1439 x 2110	590
2000 I		16 kW		1815 x 1439 x 2360	630
3000 I				2030 x 1660 x 2470	750
400 l	Diesel oil tank			910 x 750 x 1167	190
435 I	Water service tank	(12 kW)		1528 x 846 x 2308	491

RECOMMENDED SHIP'S INCINERATOR INSTALLATION



MODULAR DESIGN

· Allows flexibility and many options for retrofit and extended product lifetime



- TeamTec bolted and modular construction
- Replaceable refractory
- · All parts through a normal ship door
- Within a few days we assemble the incinerator in the final location onboard

TEAMTEC CONTAINERIZED AND SKID MOUNTED INCINERATING PLANTS

Self-contained units for mounting outside on weather deck, ready for operation. The complete plants are built to the highest marine standards.









AFTER SALES

TeamTec provides comprehensive after sales service for all TeamTec products.

SPARE PARTS

- Tailored spare part kits
- Prolonged life-time of the units
- Trouble-free operation
- Avoid unnecessary downtime and costs
- · Parts in stock can be sent the same day as the order is received

Contact us - e-mail: spares@teamtec.no

UPGRADES

- Improved technology has many advantages; keywords are automation, increased capacity and lower fuel consumption
- · We can offer various upgrades of both software and hardware
- · Additional equipment and features can be retrofitted to further improve the versatility
- · Upgrading kits make older incinerators more cost-efficient and environmentally friendly

Contact us - e-mail: spares@teamtec.no

SERVICE

A combination of experienced and highly qualified staff plus extensive know-how guarantees our customers will receive the highest level of customer care.

OUR SERVICE DEPARTMENT PROVIDES THE FOLLOWING:

- Commissioning
- Repair service
- Pre-installation survey

SERVICE AGREEMENT AND TRAINING:

- Annual service visits
- Technical seminars
- · Required training of the crew operating the incinerator
- Simplify acceptance by local port authorities

Contact us - e-mail: service@teamtec.no



GLOBAL PRESENCE

The TeamTec head office and manufacturing is located in Southern Norway, and we also have a sales and service office in Singapore. A global network of representatives is ready to support our customers 24/7.

The TeamTec incinerators are well known in the market under different brand names including Golar and Kværner. Additionally, our incinerators are manufactured at our assembly line in China, Nanjing Luzhou Machine Company, to serve the Asian market.







