





# SIXEN N



## DESCRIPTION







The SIXEN N range consists of monobloc reverse flame wet back fire tube steam boilers. This range is extremely versatile and suitable for use in different industrial processes, from food & beverage to the manufacturing industry. It is also available as built-in and complete system (SIXEN STX).

## FEATURES

-  **Design pressure: 12 or 15 bar**
-  **Heat output: 238 ÷ 3407 kW**
-  **Steam capacity: 350 to 5000 kg / h**
-  **Efficiency: > 90.0%**

*The entire range is available, upon request, with maximum design pressure of 25 bar*

## ADVANTAGES

-  **constructive Functionality**  
The rectangular design of the boiler transforms the top into an access walkway floor, facilitating access to the accessories installed. This feature is unique in boilers of this type.
-  **Efficiency at all costs**  
Integrated solutions for increased performance and efficiency through flue gas heat recovery fully integrated into the structure of the boiler.
-  **Reliability and durability**  
Maximum reliability and durability guaranteed through design with low surface heat losses.
-  **High steam quality**  
At high load the internal separator prevents the entrainment of water droplets to the steam outlet, the steam produced is then always of high quality having a very high dryness fraction.
-  **Consistant supply of high quality steam**  
Thanks to the generously dimensioned steam chamber the boiler can meet the varying demand of the system including instantaneous peak demands
-  **Maximum security**  
The generator has been designed in accordance with the strictest international safety regulations in force.

## High-pressure reverse flame steam boiler

### MODELS



SIXEN N



SIXEN STX

### AVAILABLE CERTIFICATIONS



### RECOMMENDED TECHNOLOGIES



### MAIN APPLICATIONS

- ⊕ Paper industry
- ⊕ Wine farms
- ⊕ Food and beverage industry
- ⊕ Meat processing
- ⊕ Distilleries
- ⊕ Beer industry
- ⊕ Chemical and pharmaceutical industries
- ⊕ Manufacturing industry
- ⊕ Hospitals
- ⊕ Dairy Industry
- ⊕ Heavy industry
- ⊕ Petrochemical industry

# SIXEN N

Manufactured from steel that has been quality tested according to the prevailing standards and welded with automatic submerged arc welding processes. Suitable for liquid and gaseous fuels. Complete with regulation and safety accessories for automatic operation.



## SIXEN N 12 bar

**Design pressure: 12 bar**  
**Operating pressure: 8 - 11,5 bar**  
**Heat output: 238 ÷ 3407 kW**  
**Steam capacity: 350 to 5000 kg / h**  
**Efficiency: > 90.0%**

## SIXEN N 15 bar

**Design pressure: 15 bar**  
**Operating pressure: 12 - 14 bar**  
**Heat output: 238 ÷ 3407 kW**  
**Steam capacity: 350 to 5000 kg / h**  
**Efficiency: > 90.0%**

## TECHNICAL DATA

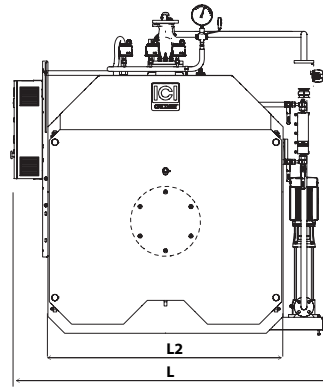
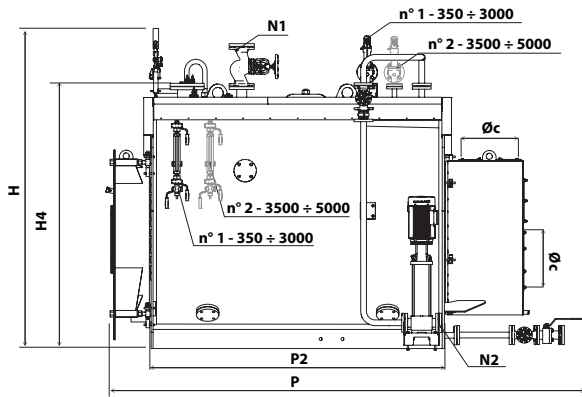
Model	Heat Output	Flow thermal	Steam capacity *	Total volume H2O	Flue gas pressure drop	Gas consumption	Diesel fuel consumption	Nafta consumption	Total weight **			
									12 bar		15 bar	
									1 pump	2 pumps	1 pump	2 pumps
SIXEN N	kW	kW	kg/h	lt	mbar	Nm <sup>3</sup> /h	kg/h	kg/h	kg	kg	kg	kg
350	238	265	350	915	4,0	27,1	22,3	23,5	1600	1660	1760	1800
500	341	379	500	915	6,5	38,8	31,9	33,6	1600	1660	1760	1800
650	443	492	650	1230	4,0	50,4	41,5	43,6	2160	2200	2360	2400
800	545	606	800	1230	5,0	62,0	51,1	53,7	2160	2200	2360	2400
1000	681	757	1000	1810	7,0	77,5	63,8	67,1	2720	2780	2980	3020
1300	886	984	1300	2150	6,5	100,8	83,0	87,3	3020	3080	3240	3300
1700	1158	1287	1700	2470	9,5	131,8	108,5	114,1	4200	4260	4480	4540
2000	1363	1514	2000	2840	10,0	155,0	127,7	134,2	4600	4660	4960	5020
2500	1703	1893	2500	3350	6,5	193,8	159,6	167,8	5460	5500	5960	6020
3000	2044	2271	3000	3970	8,0	232,5	191,5	201,4	5660	5700	6080	6140
3500	2385	2650	3500	4760	8,0	271,3	223,4	234,9	7460	7500	7860	7920
4000	2726	3028	4000	6760	10,0	310,0	255,3	268,5	9160	9200	9640	9680
5000	3407	3786	5000	7970	11,0	387,6	319,2	335,6	10160	10200	10860	10920

\* steam capacity with feed water at 80 ° C

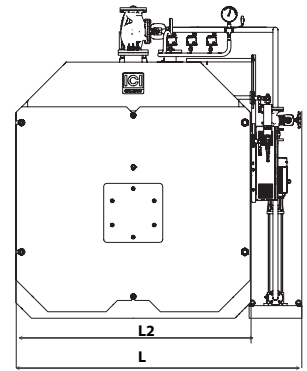
\*\*The weights indicated in this offer may vary depending on the accessories chosen upon ordering and any required customisations. Request the equipment weight to the sales office after the order.

# DIMENSIONS

## SIXEN N

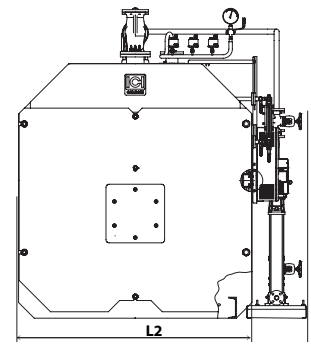
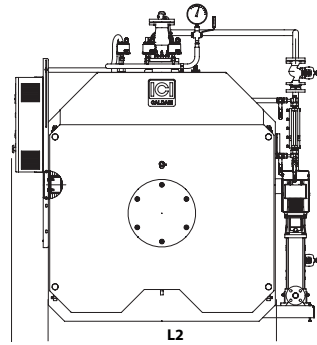
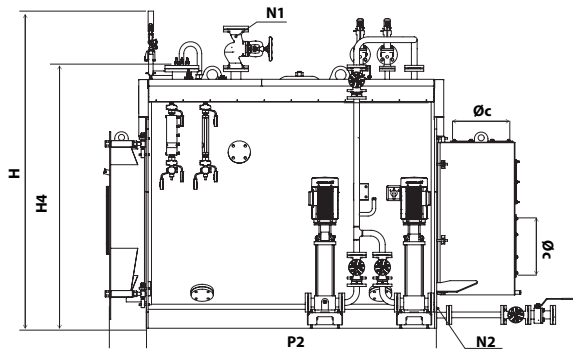


SIXEN N 350 ÷ 1700



SIXEN N 2000 ÷ 5000

## SIXEN N - EXP



Model	H	H4	L	L2	P	P2	ØC	N1	N2
SIXEN N	mm	mm	mm	mm	mm	mm	mm	DN/in	DN/in
350	1813	1495	1842	1220	2689	1520	230	32	32
500	1813	1495	1842	1220	2689	1520	230	32	32
650	1933	1585	1944	1340	2947	1740	285	40	32
800	1933	1585	1944	1340	2947	1740	285	40	32
1000	2213	1865	2154	1550	3197	1740	330	50	32
1300	2197	1865	2152	1550	3505	2150	330	50	32
1700	2347	1945	2283	1680	3507	2150	380	65	32
2000	2347	1945	2016	1680	3967	2510	380	65	32
2500	2524	2105	2179	1840	4027	2510	430	80	32
3000	2524	2105	2179	1840	4466	2952	430	80	32
3500	2724	2277	2481	1990	4611	2950	480	80	32
4000	2844	2427	2690	2110	5162	3502	530	100	32
5000	2964	2547	2751	2230	5628	3752	590	125	32

## STANDARD EQUIPMENT

- Steam outlet/crown valve
- Large dial 3 way test valve manometer
- Limit pressure switch
- Manual reset safety pressure switch
- Purge shut-off valve
- Quick exhaust valve with manual lever
- Pump start and stop probes
- 1st and 2nd alarm and burner shut off probe for low level
- Sonda allarme e blocco pompa per alto livello

Boiler control panel, IP 55 400V/3 +N/ 50Hz

## AVAILABLE CONDITIONS

### Single feed water pump

- 1 vertical multi-stage centrifugal electric pump for water at 120°C
- 1 shut-off globe valve
- 1 pump suction filter
- 2 non-return valves

### Twin feed pumps

- 2 elettropompe centrifughe verticali multistadio adatte per acqua a 120° C
- 3 delivery shut-off valves
- 2 pump suction filters
- 3 non-return valves
- 1 control pressure switch

## PRODUCT CODES

Model	12 bar		15 bar	
	1 pump	2 pump	1 pump	2 pump
SIXEN 350 N	87750350	87750354	87750351	87750355
SIXEN 500 N	87750500	87750504	87750501	87750505
SIXEN 650 N	87750650	87750654	87750651	87750655
SIXEN 800 N	87750800	87750804	87750801	87750805
SIXEN 1000 N	87751000	87751004	87751001	87751005
SIXEN 1300 N	87751300	87751304	87751301	87751305
SIXEN 1700 N	87751700	87751704	87751701	87751705
SIXEN 2000 N	87752000	87752004	87752001	87752005
SIXEN 2500 N	87752500	87752504	87752501	87752505
SIXEN 3000 N	87753000	87753004	87753001	87753005
SIXEN 3500 N	87753500	87753504	87753501	87753505
SIXEN 4000 N	87754000	87754004	87754001	87754005
SIXEN 5000 N	87755000	87755004	87755001	87755005

# SIXEN STX

## STEAM BOILER COMPLETE UNIT

Built-in steam generation system designed as a standalone unit, preassembled and pre-tested at the factory before shipment in order to offer a finished product, guaranteed and simple to install. The STX system was designed so that all its components are duly sized, positioned and interconnected to make a single unit. The customer can thus rely on a spot-on design and a guaranteed system, which only needs to be connected to utilities.



## ADVANTAGES

- Reduction of installation time and costs
- Easy installation
- Guarantee of reliability
- Optimisation of the dimensions in heating plant room

## SYSTEM COMPONENTS



- Steam boiler of the range SIXEN with single feed pump



- Atmospheric deaerator - model **DEG**



- Feed water treatment unit **ADD D**



- Dosing station **DS**



- Ladder and handrail to reach the top of the boiler (**STX 1700 ÷ 5000**)

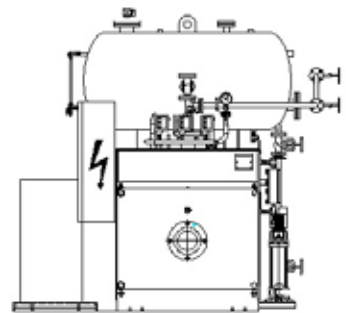
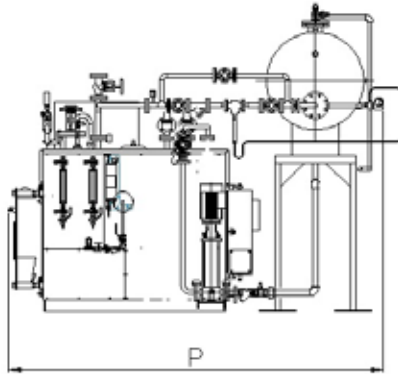
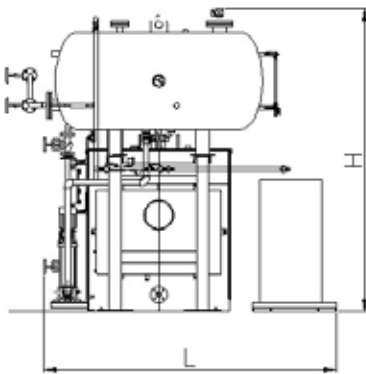
### Standard equipment

- Deaerator support frame
- Hydraulic connection between softening unit and deaerator
- Hydraulic connection between deaerator and supply pumps
- Electric connection of all supplied equipment converging to a single centralised control panel

### Not included

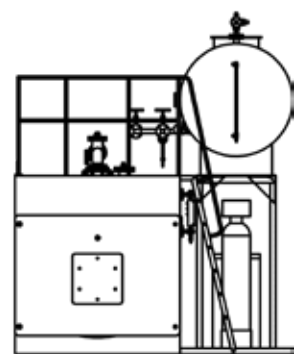
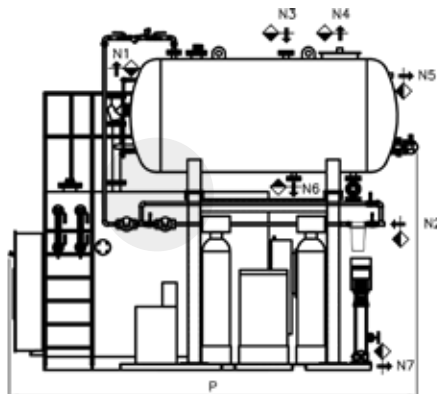
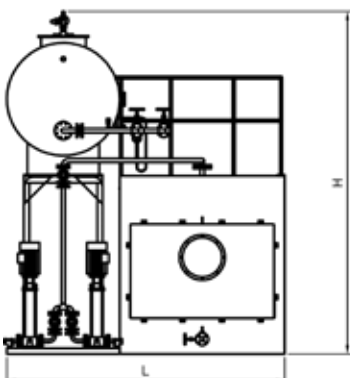
- Drains and blowdown hydraulic connection
- Pipe insulation
- BDV Blowdown vessel

Model	Code	Components included in the system					Ladder and handrail	H mm	L mm	P mm
		Boiler	Deaerator	Water softener	Dosing station					
STX 350	89120010	SIXEN 350	DEG 500	ADD 90 D	DS 1	no	2910	2410	2910	
STX 500	89120020	SIXEN 500	DEG 500	ADD 90 D	DS 1	no	2910	2410	3160	
STX 650	89120030	SIXEN 650	DEG 500	ADD 90 D	DS 1	no	3030	2530	3200	
STX 800	89120040	SIXEN 800	DEG 500	ADD 90 D	DS 1	no	3030	2530	3450	
STX 1000	89120050	SIXEN 1000	DEG 1000	ADD 210 D	DS 1	no	3390	2740	3400	
STX 1300	89120055	SIXEN 1300	DEG 1000	ADD 210 D	DS 1	no	3390	2740	3810	
STX 1700	89120070	SIXEN 1700	DEG 2000	ADD 300 D	DS 1	yes	3850	3010	3980	
STX 2000	89120080	SIXEN 2000	DEG 2000	ADD 300 D	DS 1	yes	3850	3010	4340	
STX 2500	89120090	SIXEN 2500	DEG 3000	ADD 600 D	DS 1	yes	4260	3360	4730	
STX 3000	89120100	SIXEN 3000	DEG 3000	ADD 600 D	DS 1	yes	4330	3360	5230	
STX 3500	89120110	SIXEN 3500	DEG 3000	ADD 600 D	DS 1	yes	4520	3500	5300	
STX 4000	89120120	SIXEN 4000	DEG 4000	ADD 800 D	DS 2	yes	4790	3770	5750	
STX 5000	89120130	SIXEN 5000	DEG 4000	ADD 800 D	DS 2	yes	4910	3890	6000	



### STX 350 ÷ 1300

(DEG deaerator, located towards the rear of the system)



### STX 1700 ÷ 5000

(DEG deaerator, located at the side of the system)

## ACCESSORIES AVAILABLE FOR THE RANGE

Code	Description	12 bar		15 bar		STX
		1 pump	2 pumps	1 pump	2 pumps	STX
See "Accessories" section	Automatic purging system	■	■	■	■	■
See "Accessories" section	Standby feed water pump	■	○	■	○	■
17090037	Salinity control unit (pneumatic TDS)	■	■	■	■	■
17090035	Salinity control unit (electric TDS)	■	■	■	■	■
17090051	Salinity control unit (electric light TDS) max. p. 12 bar	■	■	○	○	■
38040100	Sample cooler	■	■	■	■	■
See "Accessories" section	Modulating level regulation with electric valve	■	■	■	■	■
39050001	Modulating level regulation with pump + inverter	■	■	■	■	■
39050100	Modulating feed of electrical two-way valve and pump with inverter	■	○	■	○	■
39050110	Modulating feed of electrical two-way valve and pumps with inverter	○	■	○	■	○
90060010	High level safety kit	■	■	■	■	■
90060040	Self-checking High level safety unit	■	■	■	■	■
90060050	Self-checking Low level safety units	■	■	■	■	■
86900067	Global safety system GSS72/1 (SIXEN 350-2000)	■	■	■	■	■
86900073	Global safety system GSS72/2X	■	■	■	■	■
90060070	2nd stage regulation pressure switch (in case of two-stage burner)	■	○	■	○	■
90060060	Ladder and handrail	■	■	■	■	○
90060090	Side platform	■	■	■	■	○
90060078	Cascade control panel	■	■	■	■	○
QCTETERM	Eterm Easy manager panel	■	■	■	■	○
39050000	Modulating feed water system with pumps + inverter	○	■	○	■	○

## COMPONENTS FOR HEATING PLANT ROOM COMPATIBLE WITH THE RANGE



ECO-S  
integrated economiser



ADD  
Feed water treatment unit for steam boilers



VRC  
Condensate collection tank



VRC-V  
Condensate collection tank



DEG  
Atmospheric deaerator



BDV  
Blowdown vessel



DEG/P  
Pressurised deaerator



VEX  
Steam accumulator