

# ECXV

## Vertical energy saver



**Energy saving** achieved by partial sensible heat recovery of the boiler's flue gas by preheating the feed water;

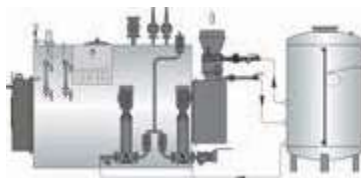
**Exchanger element** of flue gas/water, non-condensing type, suitable for methane gas boiler operation, manufactured from finned tubes made from carbon steel P235GH, arranged in several rows with distribution manifolds.

**Frame** coated hermetic carbon steel frame, directly coupled to the boiler smoke box.

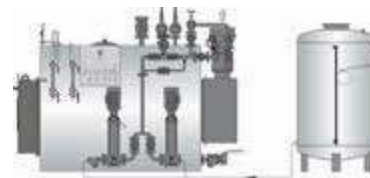
**Flue gas outlet fitting** conical, flanged, equipped with a top circular flange for chimney connection;

**Pipes and headers** for instrument assembly and hydraulic connection;

### A-type installation diagram



### B-type installation diagram



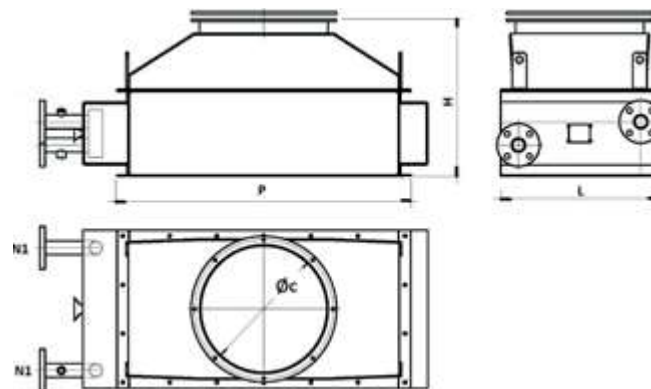
### Standard accessories for type A

- Safety valve (3 bar)
- Energy saver circulation pump
- 3 shut-off valves
- 2 water thermometers upstream and downstream of the economiser

### Standard accessories for type B

- PED-certified safety valve (18 bar)
- 3 by-pass and shut-off valves
- Water thermometer downstream of the economiser
- Water pressure gauge downstream of the economiser
- Economiser - boiler connection pipes

### DIMENSIONS



Model	Weight	Dimensions				
		H	L	P	Ø C	N1
	kg	mm	mm	mm	mm	in/DN
ECXV 2-6	93	400	278	710	250	25
ECXV 8-12	156	400	380	910	350	25
ECXV 15-20	181	550	552	1030	450	40
ECXV 25-35	251	575	552	1280	550	40
ECXV 40-50	376	700	642	1280	650	40
ECXV 60-70	464	808	732	1480	700	50
ECXV 80	542	808	732	1530	800	50
ECXV 90-100	623	700	912	1630	900	65
ECXV 120-130	730	700	912	1980	1000	65
ECXV 150	888	810	1182	2280	1100	80

## MATCHING EQUIPMENT AND TECHNICAL SPECIFICATIONS

Model	Suitable for	INSTALLATION (A)								
		Code	Inlet T	Outlet T	Flow rate	Water-side pressure drop	Heat Output	Rendimento al 100% rif.(P.C.I.)	Flue gas pressure drop	Flue gas temperature at boiler output
			°C	°C	kg/h	mbar	kW	%	mbar	°C
ECXV 8-12	GX 1000	85500120	75	90	3658	161	64	5,5	0,6	140
	GX 1200		75	90	4117	198	72	5,2	0,8	146
ECXV 15-20	GX 1500	85500140	75	90	5244	134,8	92	5,4	0,2	145
	GX 1750		75	90	5806	161	101	5	0,3	149
	GX 2000		75	90	6323	187,5	110	4,6	0,4	154
ECXV 25-35	GX 2500	85500170	75	90	8961	303	156	5,7	0,4	142
	GX 3000		75	90	10093	374	176	5,1	0,6	148
	GX 3500		75	90	11121	443,6	194	4,7	0,8	153
ECXV 40-50	GX 4000	-	Installation (A) not available							
	GX 5000	-								
ECXV 60-70	GX 6000	-								
	GX 7000	-								
ECXV 80	GX 8000	-								
ECXV 90-100	GX 9000	-								
	GX 10000	-								
ECXV 120-130	GX 12000	-								
	GX 13000	-								
ECXV 150	GX 15000	-								

Model	Suitable for	INSTALLATION (B)								
		Code	Inlet T	Outlet T	Flow rate	Water-side pressure drop	Heat Output	Rendimento al 100% rif.(P.C.I.)	Flue gas pressure drop	Flue gas temperature at boiler output
			°C	°C	kg/h	mbar	kW	%	mbar	°C
ECXV 8-12	GX 1000	85500110	80	109	1700	41	58	5	0,6	149
	GX 1200		80	103	2560	85	67	4,9	0,8	152
ECXV 15-20	GX 1500	85500135	80	108	2560	37	84	4,9	0,2	153
	GX 1750		80	107	3000	49	93	4,5	0,3	159
	GX 2000		80	106	3400	62	101	4,2	0,4	160
ECXV 25-35	GX 2500	85500160	80	109	4270	80	143	5,2	0,4	150
	GX 3000		80	107	5100	110	162	4,7	0,6	156
	GX 3500		80	105	6000	147	174	4,2	0,8	160
ECXV 40-50	GX 4000	85500175	80	115	6820	307	273	5,8	1,9	132
	GX 5000		80	113	8228	428	316	5,4	2,8	139
ECXV 60-70	GX 6000	85500190	80	114	10240	545	400	5,7	2,3	134
	GX 7000		80	112	12000	722	445	5,4	2,9	139
ECXV 80	GX 8000	85500220	80	114	10240	545	400	4,3	2,3	134
ECXV 90-100	GX 9000	85500230	80	113	15300	187	581	5,5	2,5	138
	GX 10000		80	112	17000	226	624	5,3	3	141
ECXV 120-130	GX 12000	85500250	80	113	20000	358	758	5,4	2,9	140
	GX 13000		80	112	22000	424	819	5,4	3,47	143,5
ECXV 150	GX 15000	85500260	80	118	25000	262	1099	6,3	2,4	124

# ECXV-I

Vertical energy saver



Vertical economiser of the **ECXV-I series in AISI 304 stainless steel** for the recovery of exhaust gas heat to pre-heat the water delivery: supplied fitted and connected vertically to the boiler and complete with accessories.

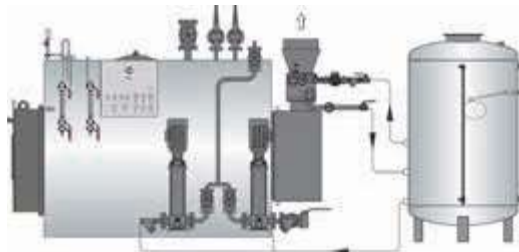
It consists of:

Flue gas / water non-condensing **exchanger element** suitable for methane gas boiler operation only, manufactured from finned tubes made out of **AISI 304 stainless steel and fins in AL5754 aluminium**, arranged in several rows with distribution headers; construction in accordance with the European directive PED 2014/68/EU; **Hermetic frame structure in AISI 304 stainless steel** directly coupled by means of bolts to boiler smokebox suitably modified;

#Raccordo uscita fumi troncoconico flangiato superiormente per l'allacciamento al camino;

**Installation of economiser and relevant boiler accessories: the Assembly Certification of the boiler according to Directive PED 2014/68/EU is included** (where applicable).

A-type installation diagram



B-type installation diagram



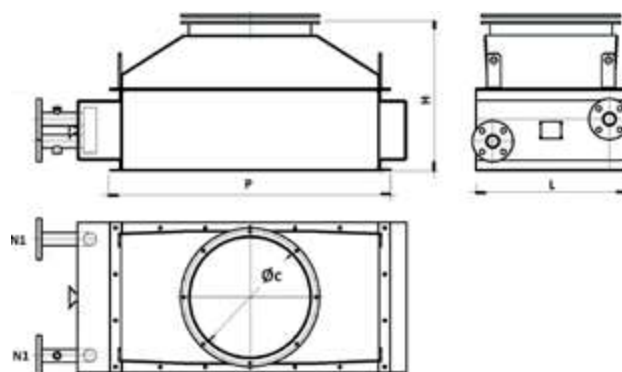
### Standard accessories for type A

- Safety valve (3 bar)
- Energy saver circulation pump (T max = 140° C)
- 3 shut-off valves
- 2 water thermometers upstream and downstream of the economiser
- Power supply and circulation pump control inside the generator electrical panel

### Standard accessories for type B

- PED-certified safety valve (18 bar)
- 3 by-pass and shut-off valves
- Water thermometer downstream of the economiser
- Water pressure gauge downstream of the economiser
- Economiser - boiler connection pipes

## TECHNICAL SPECIFICATIONS AND DIMENSIONS



Model	Weight kg	Dimensions				
		H	L	P	Ø C	N1
		mm	mm	mm	mm	in/DN
ECXV 2-6	93	400	278	710	250	25
ECXV 8-12	156	400	380	910	350	25
ECXV 15-20	181	550	552	1030	450	40
ECXV 25-35	251	575	552	1280	550	40
ECXV 40-50	376	700	642	1280	650	40
ECXV 60-70	464	808	732	1480	700	50
ECXV 80	542	808	732	1530	800	50
ECXV 90-100	623	700	912	1630	900	65
ECXV 120-130	730	700	912	1980	1000	65
ECXV 150	888	810	1182	2280	1100	80

## MATCHING EQUIPMENT AND TECHNICAL SPECIFICATIONS

Model	Suitable for	INSTALLATION (A)								
		Code	Inlet T	Outlet T	Flow rate	Water-side pressure drop	Heat Output	Rendimento al 100% rif.(P.C.I.)	Flue gas pressure drop	Flue gas temperature at boiler output
			°C	°C	kg/h	mbar	kW	%	mbar	°C
ECXV-I 8-12	GX 1000	85500121	75	90	3406	205	59	5	0,39	147
	GX 1200		75	90	3852	254,7	67	4,9	0,53	152
ECXV-I 15-20	GX 1500	85500142	75	90	6402	200,5	112	6,5	0,6	123
	GX 1750		75	90	7179	245,4	126	6,1	0,78	128
	GX 2000		75	90	7909	291	138	5,7	0,98	132
ECXV-I 25-35	GX 2500	85500171	75	90	11029	154,4	192	7	1,6	120
	GX 3000		75	90	12626	195,9	220	6,4	2,17	125
	GX 3500		75	90	14103	238	247	6	2,8	130
ECXV-I 40-50	GX 4000	-	Installation (A) not available							
	GX 5000	-								
ECXV-I 60-70	GX 6000	-								
	GX 7000	-								
ECXV-I 80	GX 8000	-								
ECXV-I 90-100	GX 9000	-								
	GX 10000	-								
ECXV-I 120-130	GX 12000	-								
	GX 13000	-								
ECXV-I 150	GX 15000	-								

Model	Suitable for	INSTALLATION (B)								
		Code	Inlet T	Outlet T	Flow rate	Water-side pressure drop	Heat Output	Rendimento al 100% rif.(P.C.I.)	Flue gas pressure drop	Flue gas temperature at boiler output
			°C	°C	kg/h	mbar	kW	%	mbar	°C
ECXV-I 8-12	GX 1000	85500111	80	95	1700	200	33	2,8	0,4	150
	GX 1200		80	101	2560	122	63	4,6	0,5	157
ECXV-I 15-20	GX 1500	85500134	80	114	2560	39	101	5,9	0,6	135
	GX 1750		80	112	3000	51	113	5,5	0,7	139
	GX 2000		80	112	3400	64	124	5,1	1	142
ECXV-I 25-35	GX 2500	85500161	80	115	4270	195	172	6,3	1,1	132
	GX 3000		80	113	5100	268	197	5,7	1,5	137
	GX 3500		80	112	6000	358	221	5,4	2	141
ECXV-I 40-50	GX 4000	85500176	80	116	6820	77	283	6	1,8	128
	GX 5000		80	115	8228	107	333	5,7	2,5	135
ECXV-I 60-70	GX 6000	85500192	80	114	10240	44	409	5,8	1,7	132
	GX 7000		80	113	12000	58	460	5,6	2,2	136
ECXV-I 80	GX 8000	85500221	80	114	10240	59	530	5,6	2,1	135
ECXV-I 90-100	GX 9000	85500231	80	102	15300	37	384	3,6	1,1	172
	GX 10000		80	101	17000	45	412	3,5	1,4	175
ECXV-I 120-130	GX 12000	85500251	80	102	20000	73	502	3,6	1,3	173
	GX 13000		80	101	22000	86	537	3,5	1,6	176
ECXV-I 150	GX 15000	85500261	80	115	25000	170	1009	5,7	2	133

# ECXV-KOND

Vertical energy saver



Vertical economiser **complete with condensate SEPARATOR** of the **ECXV-KOND series in AISI 316 stainless steel** for the recovery of exhaust gas heat to pre-heat the water delivery; supplied fitted and connected vertically to the boiler and complete with accessories.

It consists of:

**Flue gas / water exchanger** element suitable for methane gas boiler operation only, **manufactured from finned tubes made out of AISI 316 stainless steel and fins in AL5754 aluminium alloy**, arranged in several rows with distribution headers; construction in accordance with the European directive PED 2014/68/EU;

**AISI 316L stainless steel condensate separator** placed between condenser and first stage economiser;

**Hermetic frame** structure in **AISI 316 stainless steel** directly coupled by means of bolts to boiler smokebox suitably modified;

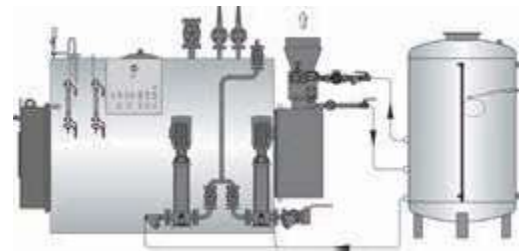
Conical **flue gas outlet fitting** flanged at the top for chimney connection;

**Montaggio dell'economizzatore** e dei relativi accessori sul generatore : **è inclusa la Certificazione di Insieme del generatore** secondo la Direttiva PED 2014/68/EU (dove applicabile);

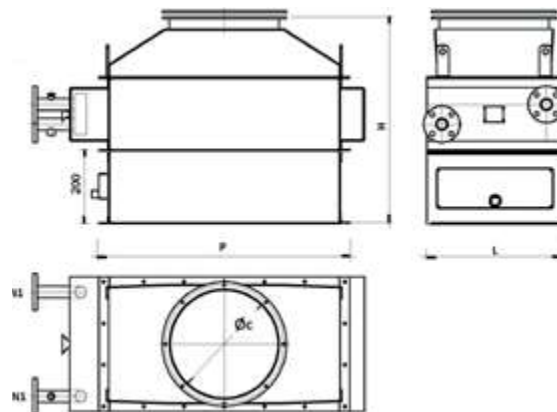
## A-type installation diagram

### Standard accessories for type A

- Safety valve (3 bar)
- Energy saver circulation pump (T max = 140° C)
- 3 shut-off valves
- 2 water thermometers upstream and downstream of the economiser
- Power supply and circulation pump control inside the generator electrical panel



## TECHNICAL SPECIFICATIONS AND DIMENSIONS



Model	Weight kg	Dimensions				
		H mm	L mm	P mm	Ø C mm	N1 in/DN
ECXV-KOND 2-6	53	600	278	710	250	25
ECXV-KOND 8-12	77	600	380	910	350	25
ECXV-KOND 15-20	124	750	552	1030	450	40
ECXV-KOND 25-35	162	775	552	1280	550	40
ECXV-KOND 40-50	234	900	642	1280	650	40
ECXV-KOND 60-70	285	1008	732	1480	700	50
ECXV-KOND 80	310	1008	732	1530	800	50
ECXV-KOND 90-100	367	900	912	1630	900	65
ECXV-KOND 120-130	416	900	912	1980	1000	65
ECXV-KOND 150	561	1010	1182	2280	1100	80

## MATCHING EQUIPMENT AND TECHNICAL SPECIFICATIONS

Model	Suitable for	INSTALLATION (A)								
		Code	Inlet T	Outlet T	Flow rate	Water-side pressure drop	Heat Output	Rendimento al 100% rif.(P.C.I.)	Flue gas pressure drop	Flue gas temperature at boiler output
			°C	°C	kg/h	mbar	kW	%	mbar	°C
ECXV-KOND 8-12	GX 1000	85500131	15	39	1700	248	47	4	0,38	89
	GX 1200		15	38	2031	154	53	3,8	0,5	93
ECXV-KOND 15-20	GX 1500	85500144	15	46	2506	196	92	5,4	0,56	76
	GX 1750		15	44	3175	309	107	5,2	0,77	79
	GX 2000		15	44	3555	232	120	5	1	82
ECXV-KOND 25-35	GX 2500	85500173	15	46	4072	284	149	5,4	1	74
	GX 3000		15	45	5023	422	177	5,2	1,49	78
	GX 3500		15	43	6054	429	201	4,9	2,05	81
ECXV-KOND 40-50	GX 4000	85500177	15	45	7003	180	249	5,3	5,03	64
	GX 5000		15	44	8671	270	292	5	6,72	66
ECXV-KOND 60-70	GX 6000	85500193	15	42	10262	168	322	4,6	1,71	70
	GX 7000		15	41	12099	233	370	4,5	2,22	72
ECXV-KOND 80	GX 8000	85500227	15	40	13733	141	403	4,3	1,67	71
ECXV-KOND 90-100	GX 9000	85500233	15	31	14986	153	286	2,7	1,11	92
	GX 10000		15	31	16786	196	310	2,6	1,33	85
ECXV-KOND 120-130	GX 12000	85500252	15	31	20271	148	386	2,7	1,31	94
	GX 13000		15	30	21895	171	394	2,6	1,3	95
ECXV-KOND 150	GX 15000	85500264	15	44	25335	258	855	4,9	2,09	73