



(23-11000) kW



High Technology

High Performans

GAS BURNERS



GAS BURNERS

Since 1964, of dynamism and experience of TERMO ISI A.Ş., The company has developed professional combustion systems and components and associated servicing.

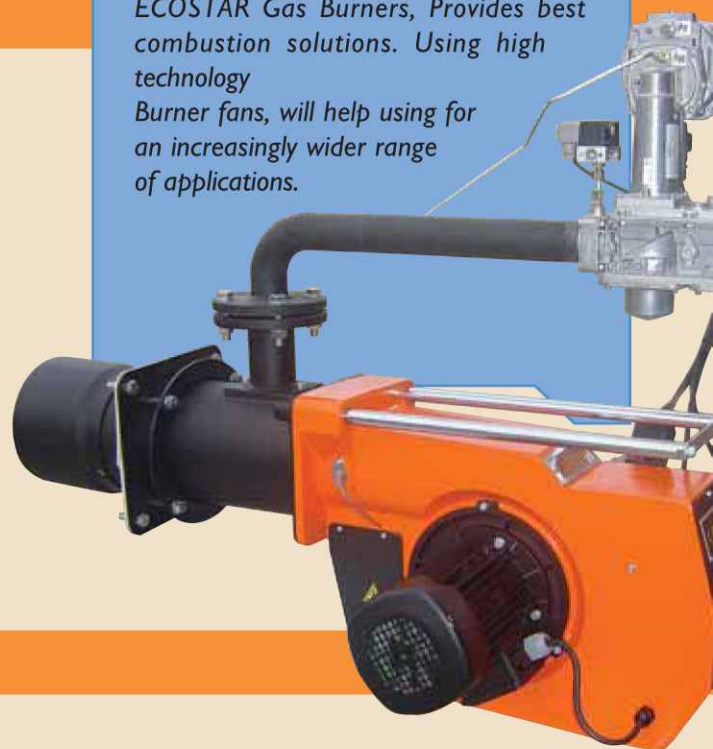
Advanced Technology

Over the years we have specialized in the production of burners for high power technical systems developing advanced solutions suited to different technological Heating needs.

Best Combustion Solutions

ECOSTAR Gas Burners, Provides best combustion solutions. Using high technology

Burner fans, will help using for an increasingly wider range of applications.





Unique Design

ECOSTAR Gas Burners designed with latest technology, special light aluminum alloy fan body, creating heating unit which are extremely reliable which offer easy access to every single component an important factor when it comes to repairing, cleaning, checking or servicing the burners.

High Efficiency

Ecostar Gas Burners, using the good quality components, gives the best combustion values for efficiency. Our policy has been directed to the protection of the environment, a philosophy quite a head of its time; The outstanding results we have obtained in connection with the reliability of our products and extremely high full performance levels reached.

EMMISSION VALUES

Ecostar gas burners, are produced with DIN 4788 and TS-EN 11392 EN-676 standarts so the results is optimum combustion with extremely low emission;

$O_2 = \%3$

$NOX > 350 \text{ kW} = 230 \text{ mg/kWh (131 ppm)}$

$\leq 350 \text{ kW} = 170 \text{ mg/kWh (97 ppm)}$

Apprax $CO \approx 100 \text{ mg/kWh (93 ppm)}$

HEATING IS OUR JOB



Control Pannel

Because of control pannel is installed on the burner, that helps to find the troubles very quick and easily.

The most important is pannel requires less cable connection and easy montage. All indication lamps and modulating control unit is on the control pannel.

Mixing Unit

Ecostar provides different type of mixing unit for boilers. Because we adjust flame dimension according to the combustion size this is the most advantage of Ecostar burners. Also because of adjustable gas nozzles also provides capacity change and formation of flame.

Pilot Ignition

Ecostar gas burners, Also has better advantage of gas pilot ignition system this gives no troubles at every start up.

Safety Group

ECOSTAR Gas burners, equipped with high technology AI class gas equipment.

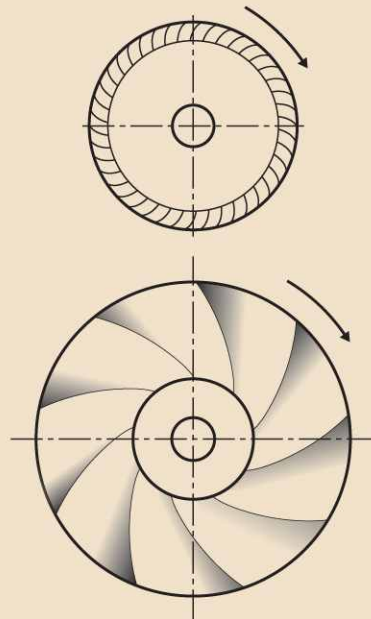


Air Actuator

High technological klappe designs allows to move all the air klappe equivally that creates the best combustion in the boiler.

Air and fuel mixing system constructed to produce best burner combustion rates at every point in the operating range.

NEW FAN DESIGN



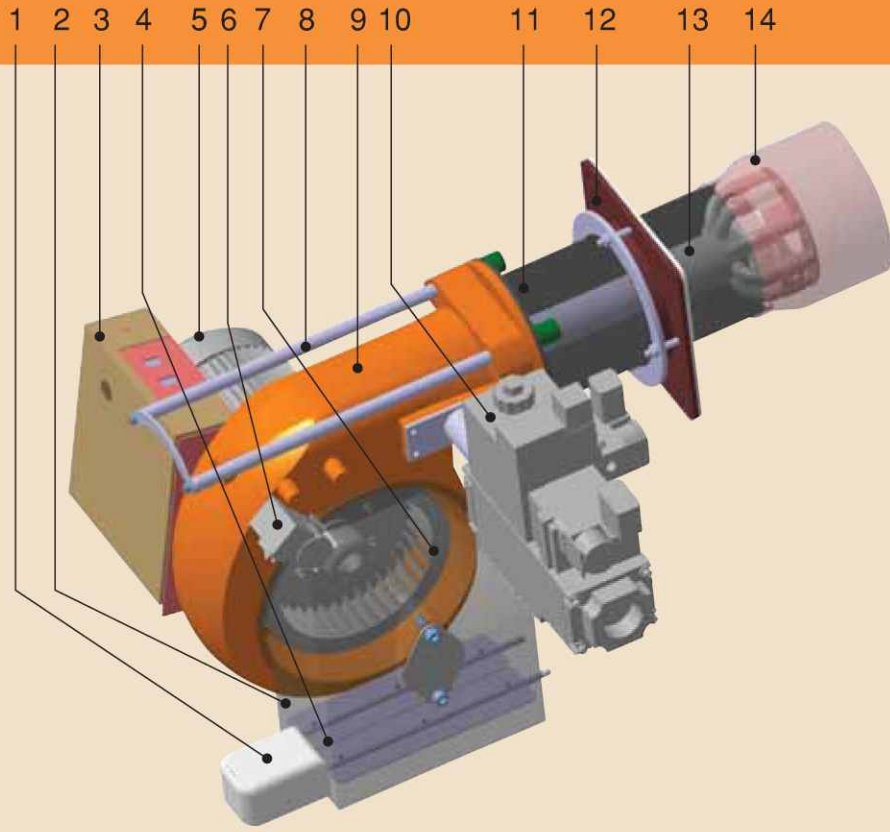
Eco type new Ecostar burners, designed with better air in take and fan system .

Min electric consumption, low noise, better efficiency.

New fan sytsem, blades are in opposite direction .

Also this new fan provides smaller burner body.

This New fan also gives better solution even for high back pressure boilers.



1. SERVOMOTOR / Air actuator

2. HAVA KAFESİ / Air intake

3. ELEKTRİK PANOSU / Control panel

4. HAVA KLAPESİ / Air klappe

5. ELEKTRİK MOTORU / Motor

6. HAVA PRESOSTATI / Air pressure switch

7. FAN / Fan

8. ASKI MİLİ / Sliding pins

9. GÖVDE / Body

10. GAZ VALFİ / Gas solenoid valve

11. ALEV BORUSU / Flame tube

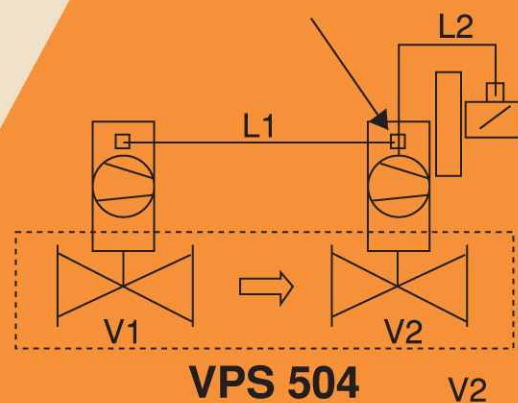
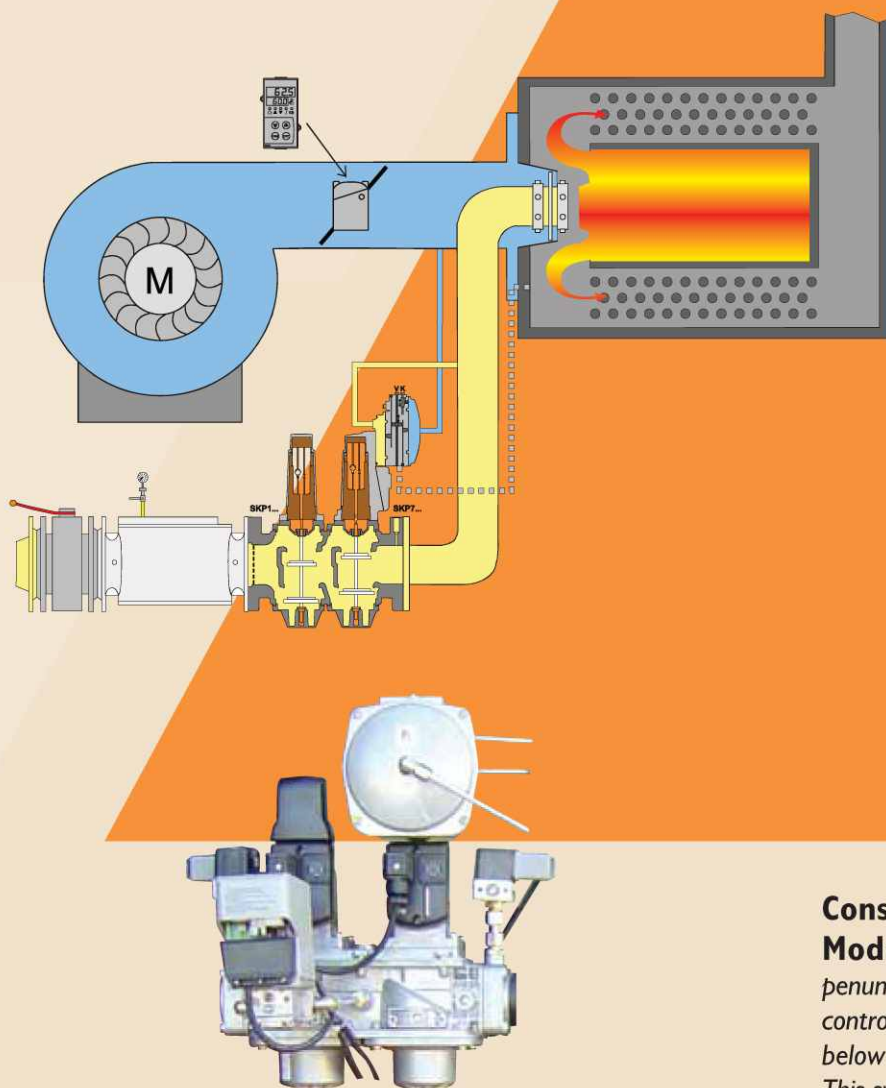
12. KAZAN BAĞLANTI FLANŞI / Boiler flange

13. AHTAPOT / Gas head and diffuser

14. ALEV BORUSU UZATMASI / Extension of flame tube

(TYPE DESCRIPTION)

(Company Symbol)	ECO	ECOSTAR
MODEL (Model)	1, 2, 3, 45, 5, 60 65, 70, 75, 8, 9	Construction Size
(Fuel Type)	G	Gas Burner (Natural Gas+LPG)
	I	(One Stage)
(Stage)	2	(Two Stage)
	3	(Modulating)
(Motor Speed)	C	2800 d/d (Rev/Min)
(Capacity)	a, b, c	Capacity Range



*Ecostar gas burners above 1200 kW supplied with gas leakage system.

*Ecostar gas burners, with modulating type supplied with modulating control unit and transmitter (specify pressure or temperature during the order)

Constant and Continuous Gas/Air Ratio Flame Modulation:

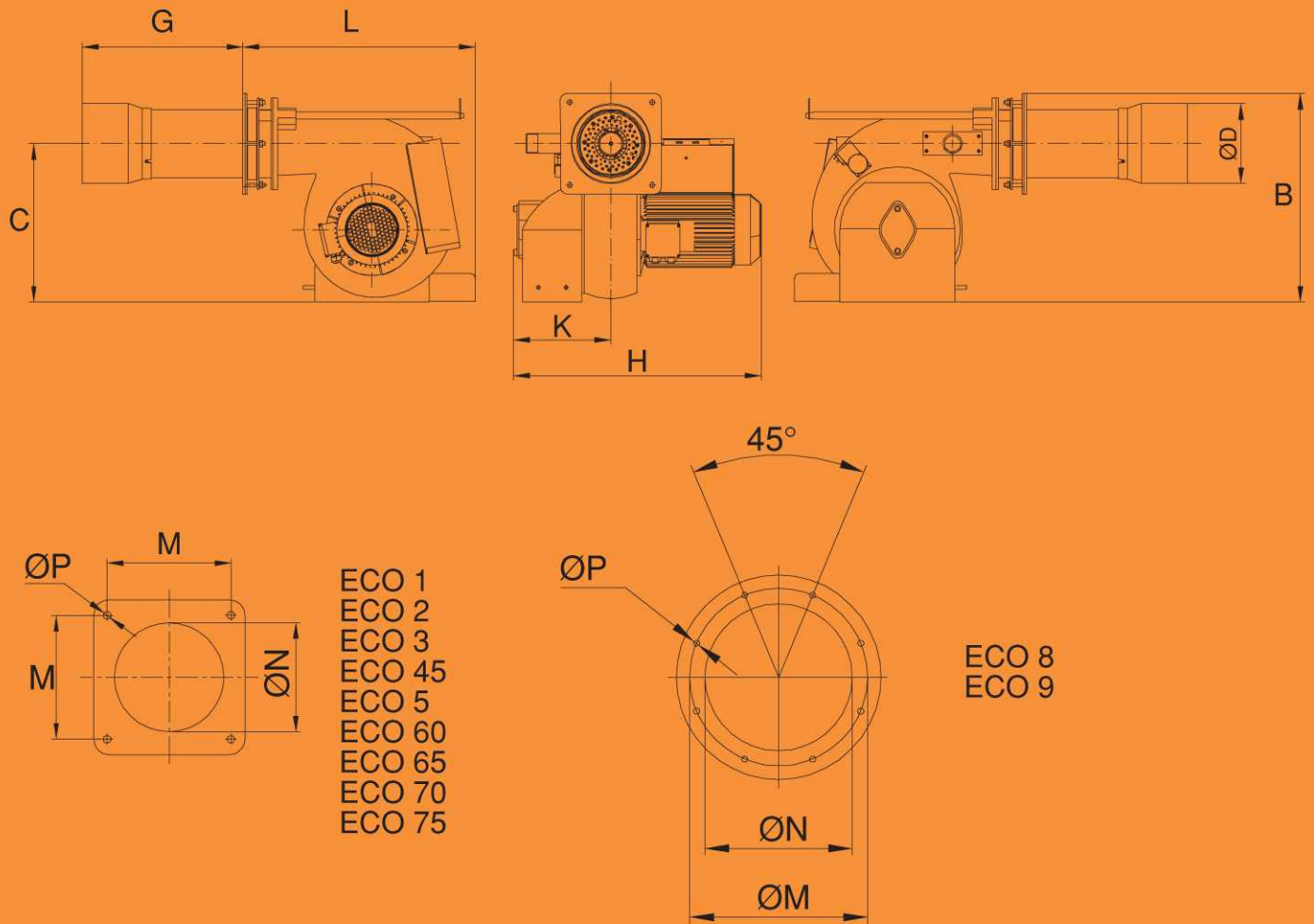
It was decided to combine on new type of penumatic modulating using [GAOC] valves (gas / air modulating control with the particular type of blast pipe with emissions well below the limits of the regulations currently inforce.

This system differs from the mechanical modulation widely used in burners, where the use of system to best effect requires great experience. We are offering a much more effective system, that is also simple to use.

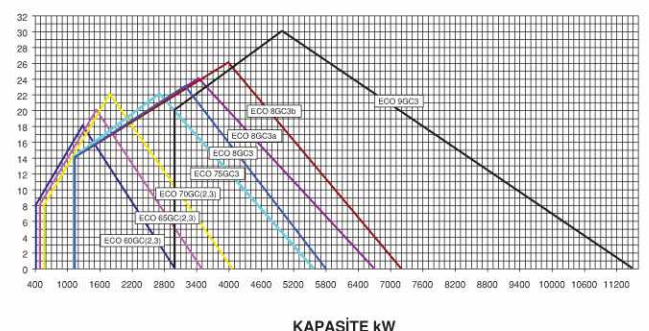
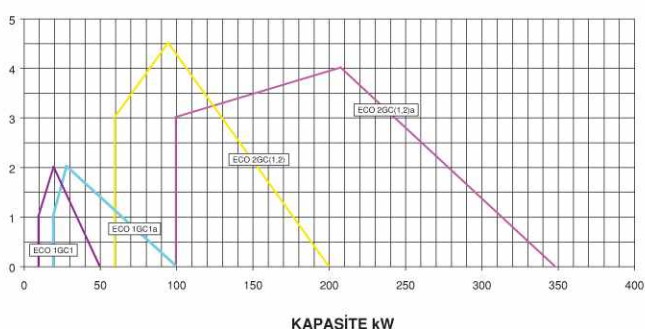
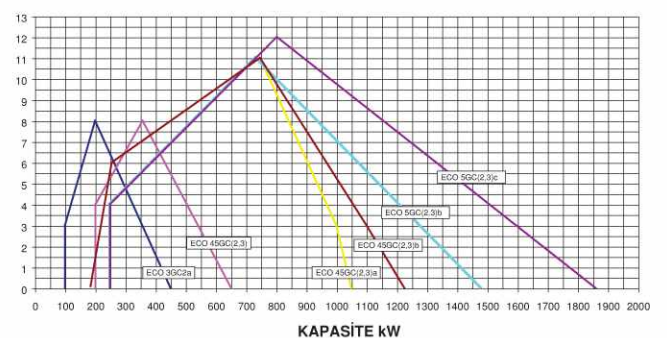
The result is much "leaner" in that a servomotor is no longer required, nor lever mechanism or the shutter valves usually used with normal modulators and the quantity of gas into the combustion chamber will depend only the amount of air that will be increased and decreased by a simple air gate.

The use of this burner will be a real help in improving the envionment in which we live

BURNER DIMENSIONS



	L	Gmin	Gmax	H	K	B	BI	C	ØN	ØP	M	ØD
ECO 1 G	260	50	220	300	170	260	-	190	85	9	110	84
ECO 2 G	380	106	200	340	165	320	-	230	120	10	142	134
ECO 3 G	550	180	350	425	185	400	750	320	168	9	142	160
ECO 45 G	535	150	350	520	215	455	-	345	149	11	180	174
ECO 5 G	830	200	365	550	255	590	1080	355	208	16	230	236
ECO 60 G	1115	200	375	880	340	655	1135	505	250	18	275	280
ECO 65 G	1115	200	375	880	340	655	1135	505	250	18	275	280
ECO 70 G	1115	200	375	880	340	655	1135	505	250	18	275	280
ECO 75 G	1200	200	375	970	355	795	1335	525	300	22	335	300
ECO 8 GC3a	1530	320	320	1020	420	860	1400	640	357	15	Ø430	307
ECO 9 GC3a	1530	320	320	1130	530	860	1400	640	430	15	Ø480	307
ECO 9 G	1500	350	350	1290	610	1100	1780	826	560	15	Ø630	492



CAPACITY DIAGRAMS

(ONE STAGE GAS BURNERS)

BURNER TYPE	CAPACITY										
	KCAL/H		KW		NATURAL GAS CONSUMPTION		LPG GAS CONSUMPTION		MOTOR POWER	MAIN SUPPLY	WEIGHT
	Min.	Max	Min.	Max.	Min. Nm ³ /h	Max. Nm ³ /h	Min. Nm ³ /h	Max. Nm ³ /h	(kW)	(V)	(KG)
ECO 1 G C 1	8,600	43,000	10	50	1.0	5.2	0.4	1.9	0.11	220	11
ECO 1 G C 1 a	17,200	86,000	20	100	2.1	10.4	0.8	3.8	0.11	220	11
ECO 2 G C 1	51,600	172,000	60	200	6.3	20.8	2.3	7.6	0.15	220	18
ECO 2 G C 1 a	86,000	299,280	100	348	10.4	36.3	3.8	13.3	0.15	220	18

(TWO STAGE GAS BURNERS)

BURNER TYPE	CAPACITY										
	KCAL/H		KW		NATURAL GAS CONSUMPTION		LPG GAS CONSUMPTION		MOTOR POWER	MAIN SUPPLY	WEIGHT
	Min.	Max	Min.	Max.	Min. Nm ³ /h	Max. Nm ³ /h	Min. Nm ³ /h	Max. Nm ³ /h	(kW)	(V)	(KG)
ECO 2 G C 2	51,600	172,000	60	200	6.3	20.8	2.3	7.6	0.15	220	18
ECO 2 G C 2 a	86,000	299,280	100	348	10.4	36.3	3.8	13.3	0.15	220	18
ECO 3 G C 2 a	86,000	387,000	100	450	10.4	46.9	3.8	17.2	0.37	220	28
ECO 45 G C 2	172,000	559,000	200	650	20.8	67.8	7.6	24.8	0.75	220-380	40
ECO 45 G C 2 a	172,000	860,000	200	1,000	20.8	104.2	7.6	38.2	1.10	220-380	40
ECO 45 G C 2 b	172,000	1,032,000	200	1,200	20.8	125.1	7.6	45.9	1.50	220-380	40
ECO 5 G C 2 b	215,000	1,272,800	250	1,480	26.1	154.3	9.6	56.6	2.20	220-380	105
ECO 5 G C 2 c	215,000	1,599,600	250	1,860	26.1	193.9	9.6	71.1	2.20	220-380	105
ECO 60 G C 2	369,800	2,580,000	430	3,000	45	313	16.4	114.7	4	220-380	190
ECO 65 G C 2	430,000	3,010,000	500	3,500	52	365	19.1	133.8	5.5	220-380	200
ECO 70 G C 2	498,800	3,500,200	580	4,070	60	424	22.2	155.6	7.5	220-380	200

(MODULATING GAS BURNERS)

BURNER TYPE	CAPACITY										
	KCAL/H		KW		NATURAL GAS CONSUMPTION		LPG GAS CONSUMPTION		MOTOR POWER	MAIN SUPPLY	WEIGHT
	Min.	Max	Min.	Max.	Min. Nm ³ /h	Max. Nm ³ /h	Min. Nm ³ /h	Max. Nm ³ /h	(kW)	(V)	(KG)
ECO 2 G C 3	51,600	172,000	60	200	6.3	20.8	2.3	7.6	0.15	220	18
ECO 2 G C 3 a	86,000	301,000	100	350	10.4	36.5	3.8	13.4	0.15	220	18
ECO 3 G C 3 a	86,000	387,000	100	450	10.4	46.9	3.8	17.2	0.37	220	28
ECO 45 G C 3	172,000	559,000	200	650	20.8	67.8	7.6	24.8	0.75	220-380	40
ECO 45 G C 3 a	172,000	860,000	200	1,000	20.8	104.2	7.6	38.2	1.10	220-380	40
ECO 45 G C 3 b	172,000	1,032,000	200	1,200	20.8	125.1	7.6	45.9	1.50	220-380	34
ECO 5 G C 3 b	215,000	1,272,800	250	1,480	26.1	154.3	9.6	56.6	2.20	220-380	105
ECO 5 G C 3 c	215,000	1,599,600	250	1,860	26.1	193.9	9.6	71.1	2.20	220-380	105
ECO 60 G C 3	369,800	2,580,000	430	3,000	44.8	313	16.4	114.7	4	220-380	190
ECO 65 G C 3	430,000	3,010,000	500	3,500	52.1	365	19.1	133.8	5.5	220-380	200
ECO 70 G C 3	498,800	3,500,200	580	4,070	60.5	424	22.2	155.6	7.5	220-380	200
ECO 75 G C 3	686,280	4,800,000	798	5,581	83.2	582	30.5	213.3	11	220-380	270
ECO 8 G C 3	989,000	4,988,000	1,150	5,800	119.9	604.6	44.0	221.7	11.00	220-380	350
ECO 8 G C 3 a	989,000	5,762,000	1,150	6,700	119.9	698.4	44.0	256.1	15.00	220-380	350
ECO 8 G C 3 b	989,000	6,192,000	1,150	7,200	119.9	750.5	44.0	275.2	15.00	220-380	350
ECO 9 G C 3	2,580,000	9,890,000	3,000	11,500	312.7	1,198.8	114.7	439.6	22.00	220-380	500



TERMO ISI
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