







C hengdu Sevenpower Generating Equipment Co., Ltd is an energy saving and environmental protection high-tech enterprise specialized in gas generator and gas CHP.

Factory is located in Chengdu city, the technology and financial center of China southwest area. With 8 years' experience in this field, Seven Power has been a comprehensive enterprise which integrated research and development, production and sales.













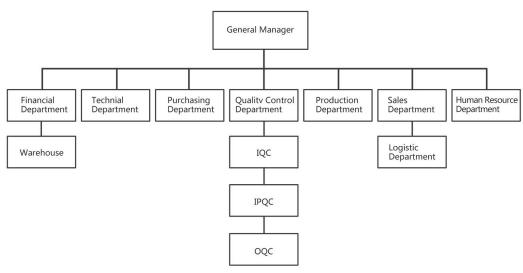






evenpower has set up a complete quality control system, and all products are certified with CE certificate. Products of Sevenpower have been sold nationwide and exported to more than 80 countries like Spain, the UK, Australia, America, Canada, Russia, the Middle East, Thailand and so on. Based on equality and mutual benefit, Sevenpower has established stable collaborative relations with several famous international corporations.

## **Company Organization Chart**





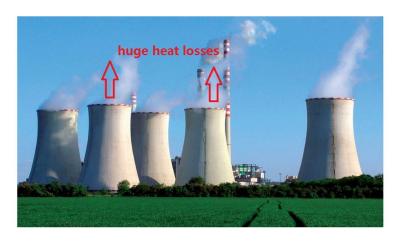




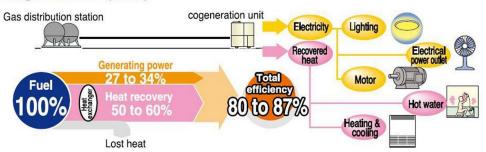
#### What is CHP?

Combined Heat and Power unit(CHP) is the simultaneous generation of principally electricity, and also of heat, close to the point of use. By locating CHP equipment in or close to a building, the electricity generated and the heat produced can be used in the building with no energy wastage.

Our grid electricity is generated by large, remote power stationswhich every year waste enough energy to heat most of our buildings. This huge waste of energy results in very inefficient and veryexpensive grid supplied electricity.



#### Cogeneration (CHP)



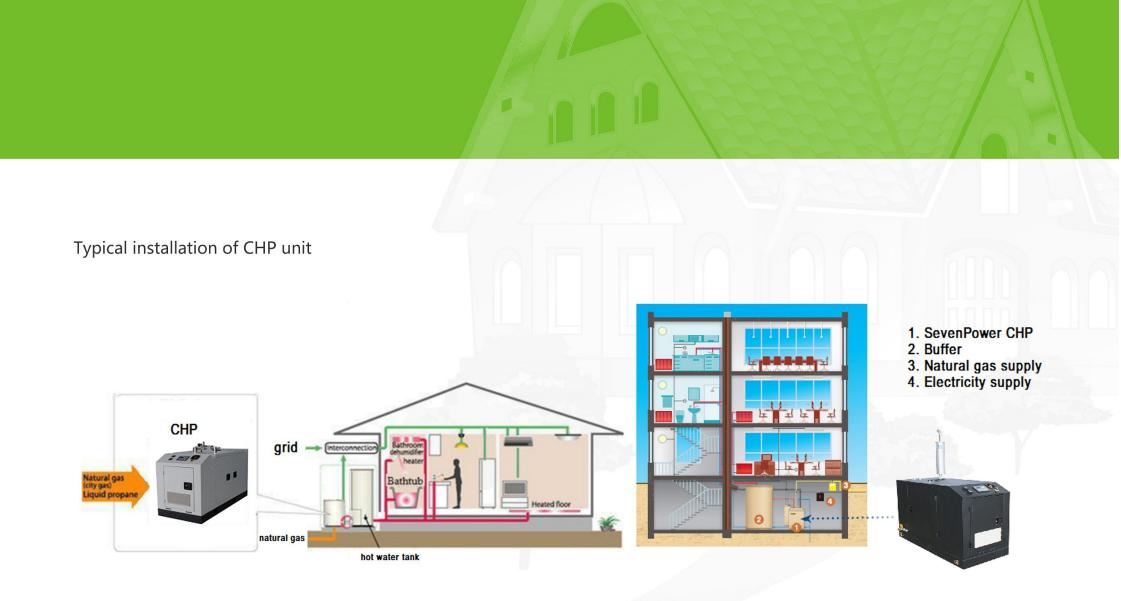
#### Why SevenPower?

- Environmentally friendly design
- Long time research and development and testing for high reliability
- Comprehensive heat insulation to minimize heat losses
- Water-to-water heat exchanger/SWEP, self-developed exhaust heat exchanger which is made of full stainless steel #316 instead of universal carbon steel which get rusty easily.
- CHP inner pipeline is made of full stainless steel.
- Maximum lower the noise level
- Maintenance friendly thanks to easy access
- Long service intervals
- Suitable for mains parallelling
- CE approved

# SevenPower CHP applications are where there is a demand for both electricity and hot water or heating.

- Luxury Houses
- Sheltered housing
- Hotels
- Schools
- Fire stations
- Leisure Centers
- Nursing Homes
- Hospitals
- Swimming Pools
- Apartment Buildings
- Commercial Buildings
- Office blocks
- District Heating for Housing Schemes

- breweries
- spas
- bakeries
- gyms
- dairies
- mountain huts
- •s aunas
- emergency services centres
- zoos
- pharmacies
- stables
- ice cream parlours
- country houses



# Natural gas CHP

Composition	Methane(CH₄)	Ethane(C <sub>2</sub> H <sub>6</sub> )	Propane(C <sub>3</sub> H <sub>8</sub> )	Octane No.(RON)	LHV(MJ/m³)
%	> 92	< 8	5	120~130	33~38

Natural gas, clean energy, compared with coal and gasoline, in addition to a small amount of N0 emissions, almost with no any sulfides, carbides and dust emissions, is environment friendly. Low pressure pipeline gas is suitable for Natural Gas CHP, no need to be pressurized, and no special gas tank is required.

ignition system Gas filter Impco/USA Madas/Italy

zero regulator

Maxitrol/USA

Water pump

Wilo

Gas mixer Governor Impco/USA Woodward/USA

Controller

ComAp/CZ







## **Natural Gas Cogeneration**

<50HZ, 1500rpm, 3p4w, 400v/230v, 60HZ or single phase or other voltage grade is available on request>

CHP model	Power(KW)		Gas consumption	Engine	Displacement	Generator		
	prime	continuous	(m³/Kw.h)	model	(L) /Cylinder	model	L*W*H(mm)	weight(kg)
SP9N	9	8	0.396	SP9EW	1.5L (4)	LSA40 VS1	1690*750*990	580
SP12N	12	10	0.364	SP-Toyota 4Y	1.97L(4)	LSA40 VS2	1850*820*950	630
SP14N	14	12	0.355	SP-Toyota 4Y	2.237L (4)	LSA40 S4	1850*820*950	630
SP17N	17	15	0.355	SP-Toyota 4Y	2.237L(4)	LSA40 M5	1850*820*950	630
SP20N	20	18	0,362	SP20EW	2.5LL(4)	LSA40 L7	1950*820*990	700
SP22N	22	20	0.357	SP-TOYOTA 3RZ	2.7L (4)	LSA42.3 VS1	1950*820*990	700
SP35N	35	32	0.324	SP-4BT	3.9L(4)	LSA42.3 S5	2500*1000*1250	1300
SP40N	40	35	0.31	SP-4BTAA	3.9L(4)	LSA42.3 M7	2500*1000*1250	1300
SP55N	55	50	0.34	SP-6BT	5.9L(6)	LSA44.3S2	2300*1900*1200	2000
SP70N	70	60	0.325	SP-6BTAA	5.9L(6)	LSA44.3S3	2300*1900*1200	2000
SP110N	110	100	0.296	SP-6CTAA	8.3L(6)	LSA44.3M6	2570*1150*2250	2800
SP150N	150	130	0.29	SP-6LTAA	8.9L(6)	ECO38 1S4A	2600*1150*2300	3000
SP220N	220	180	0.275	DEUTZ V6	11.9(6)	ECO38 1L4A	2870*1450*2550	3600
SP240N	240	200	0.265	STYER	11.6(6)	ECO38 2L4A	2870*1450*2550	3700
SP280N	280	240	0.274	DEUTZ V8	15.8L(8)	ECO38 3L4A	3070*1450*2550	4000

# **Optional Configurations**

- ATS
- @ Grid parallel
- 8 Automatic oil change system
- 4 Catalyst converter
- 6 Asynchro mode

#### LPG CHP

Composition	Butane(C <sub>4</sub> H <sub>10</sub> )	Propane(C <sub>3</sub> H <sub>8</sub> )	Methane(CH <sub>4</sub> )	Ethylene(C <sub>2</sub> H <sub>4</sub> )	Ethane(C <sub>2</sub> H <sub>6</sub> )
%	40~50	30~40	<10	<3	<8
Composition	LHV(MJ/m³)	Mixture HV(MJ/m³)	Octane No.(RON)	Gas supply pressure(MPa)	
%	101	3.49	89~104	0.3~2.2	

LPG combustion almost no carbide and dust emissions. LPG application is more widely than other gases in the global, and the supply is adequate, it's easy for transportation and preservation, convenient energy supply to remote areas, to provide more stable fuel source for LPG CHP

Impco/USA ignition system

Gas filter Madas/Italy Maxitrol/USA zero regulator

Water pump

Wilo

Gas mixer Governor

Impco/USA Woodward/USA

ComAp/CZ Controller







#### LPG Cogeneration

<50HZ, 1500rpm, 3p4w, 400v/230v, 60HZ or single phase or other voltage grade is available on request>

CHP model	Power(KW)		Gas consumption	Engine	Displacement	Generator		
	prime	continuous	(kgs/kW.h)	model	(L) /Cylinder	model	L*W*H(mm)	weight(kg)
SP9L	9	8	0.308	SP9EW	1.5L (4)	LSA40 VS1	1690*750*990	580
SP12L	12	10	0.285	SP-Toyota 4Y	1.97L (4)	LSA40 VS2	1850*820*950	630
SP15L	15	13	0.277	SP-Toyota 4Y	2.237L (4)	LSA40 S4	1850*820*950	630
SP18L	18	16	0.277	SP-Toyota 4Y	2.237L (4)	LSA40 M5	1850*820*950	630
SP20L	20	18	0.283	SP20EW	2.5LL(4)	LSA40 L7	1950*820*990	700
SP22L	22	20	0.279	SP-TOYOTA 3RZ	2.7L (4)	LSA42.3 VS1	1950*820*990	700
SP24L	24	22	0.278	SP-TOYOTA 3RZ	2.7L (4)	LSA42.3 VS3	1950*820*990	700
SP35N	35	32	0.275	SP-4BT	3.9L(4)	LSA42.3 S5	2500*1000*1250	1300
SP40N	40	36	0.27	SP-4BTA	3.9L(4)	LSA42.3 M7	2500*1000*1250	1300

# **Optional Configurations**

- ATS
- @ Grid parallel
- 3 Automatic oil change system
- 4 Catalyst converter
- S Asynchro mode

# Biogas CHP

Composition	Content
CH4	≥55%
fluctuations value of biogas in pipeline	<0.2Kpa
hydrogen	<10%
sulfide, including hydrogen sulphide	<200mg/m3
chlorine fluorine compounds, mainly chlorofluoromethane	<15mg/m3
silicium	<0.7mg/m3
ammonia	<15mg/m3
liquid oil and hydrocarbons	<50mg/m3
particles	<50µm ,Impurity content<40mg/m3

Biogas is well known as clean energy, biogas CHP solved the problem of livestock waste, reduce greenhouse gas emissions, generate both electricity and heat, with high overall efficiency to achieve maximum utilization of resources.







#### **Biogas Cogeneration**

<50HZ, 1500rpm, 3p4w, 400v/230v, 60HZ or single phase or other voltage grade is available on request>

CHP model	Power(KW)		Gas consumption	Engine	Displacement	Generator	L*W*H(mm)	t-batter
	prime	continuous	(m³/kW.h)	model	(L) /Cylinder	model	L W M(mm)	weight(kg)
SP6.5B	6.5	6	0.55	SP9EW	1.5L (4)	LSA40 VS1	1690*750*990	580
SP9B	9	8	0.54	SP-Toyota 4Y	1.97L(4)	LSA40 VS2	1850*820*950	630
SP11B	11	10	0.52	SP-Toyota 4Y	2.237L (4)	LSA40 S4	1850*820*950	630
SP13B	13	12	0.54	SP-Toyota 4Y	2.237L (4)	LSA40 M5	1850*820*950	630
SP15B	15	14	0.54	SP20EW	2.5LL(4)	LSA40 L7	1950*820*990	700
SP17B	17	16	0.54	SP-TOYOTA 3RZ	2.7L(4)	LSA42.3 VS1	1950*820*990	700
SP22B	22	20	0.52	SP-TOYOTA 3RZ	2.7L (4)	LSA42.3 VS3	1950*820*990	700
SP30B	30	28	0.51	SP-4BT	3.9L(4)	LSA42.3 S5	2500*1000*1250	1300
SP35B	35	32	0.48	SP-4BTA	3.9L(4)	LSA42.3 M7	2500*1000*1250	1300

# **Optional Configurations**

- ATS
- ② Grid parallel
- 3 Automatic oil change system
- 4 Catalyst converter
- 6 Asynchro mode

# Chengdu SevenPower Generating Equipment CO.,Ltd

Specialised In Combined Heat and Power Unit



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