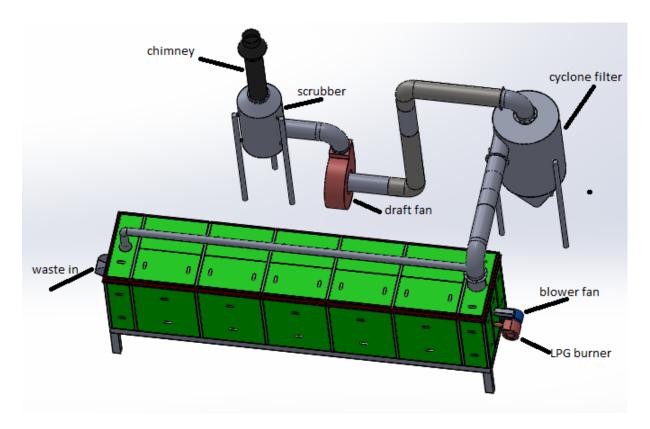


WASTE INCINERATOR



HOW IT WORKS

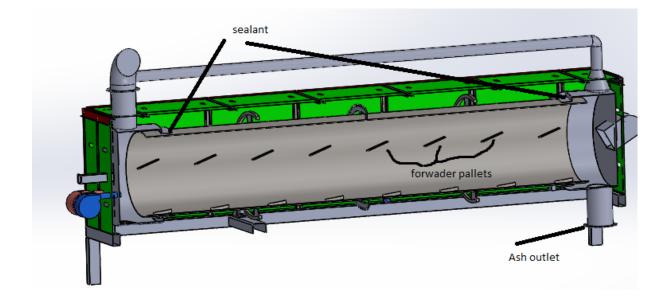
(General Information)

1-After all safety precautions taken, LPG burner is started.

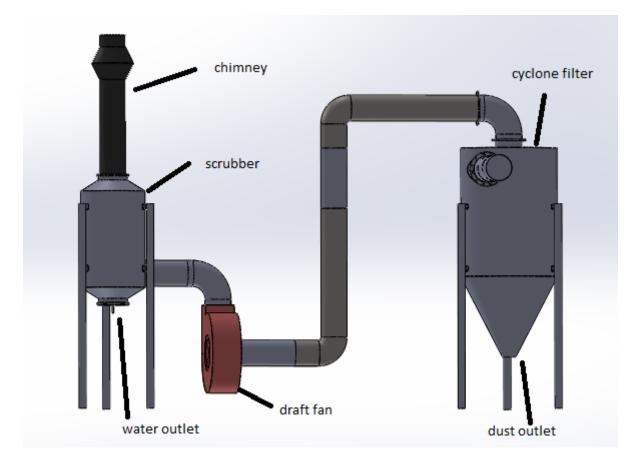
2-After chimney temperature is around 150 °C waste material feeding may be started through "waste in".

3-Feeding waste material must be in a seatdy rate.

4-After some time ash will come out through ash outlet.



5- As the burning chamber turns around forwarder pallets push the material to the left and turns the material upside down to increase the drying rate and burning efficiency.



6-Flue gas coming out incinerator enters to cyclone filter where particulate matter settels down.

7-After cyclone fitler flue gas enters to wet scrubber where the flue gas is washed with water then meets with atmosphere through the chimney.

TECHNICAL INFORMATION:

Dimensions (w	idthxheightxlenght)):	1.4mx2.35mx7m
Weight	(kg)	:	6000
Consumption	(kw)	:	5,5
Capacity app	.(kg)	:	400
Minimum area	to be installed (m ²)	:	56 (8x7)

IMPORTANAT NOTE:

- Heat evolved from the system may be used to heat water where hot water is needed.
- In near future our company will manufacture a waste incinerator coupled with an electric generator. Which means heat evolved by the incinerator will be converted to electricity by Organic Rankine Cycle system.

TALYA ROTARY WASTE INCINERATOR OVERVIEW

SQR CERTIFICATION



TALYA MÜHENDİSLİK İNŞAAT TİCARET SANAYİ LİMİTED ŞİRKETİ

MANDIRLAR MAH. TEKELÍOĞLU CAD. 125. SOK. NO:10/B AKSU/ANTALYA/TÜRKİYE

ISO 9001:2015

Scope / Kapsam

KATI VE SIVI YAKITLI KAZAN, SERA ISITMA SİSTEMİ AKSESUAR VE PARÇALARI, Piroliz makinası, mobil oluk çekme makinası, atık ve bitki kurutma makinası imalatı ve satışı

SOLID AND LIQUID FUEL BOILER, GREENHOUSE HEATING SYSTEM ACCESSORIES AND PARTS, PYROLYSIS MACHINE, MOBILE GROOVING MACHINE, WASTE AND PLANT DRYING MACHINE MANUFACTURING AND SALES

This is to certify that the above mentioned Company meets the requirement of Quality Management System

Bu sertifika ile yukunda odi geçen kunduşan Kalita Yönetim Sistemi gerekliliklerini karşılıdığı undik olunur.



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CE



SERTİFİKA

Belge No.	3	2422-UD-BD4024/01
Başvuran /	:	TALYA MÜHENDİSLİK İNŞAAT TİC. SAN. LTD. ŞTİ.
Kullanılan Yer		Mandirlar Mah, Altinoluk Cod, No:66/1 Aksu ANTALYA TURKIYE
Marka	1	TALYA
TIp/Model Gösterimi	÷.	TLY-2019
Ürün Tanımı	3	WASTE BURNER
Uygunluk Değerlendir	me	
Rapor No/Tarih	:	BD4024-01 / 19.06.2019
Ürün Açıklaması		Endüstriyel Amaçlı cebri brülörlü gaz yakan yakma kabini

Teknik Veriler

Model	TLY-2015					
Ortalama Nominal isi gücü ΣQn, KW	80-225	Ortalama Harcama (V) , m ³ /h	8,5-23.0			
Brülörler (marka/model)	URET / URG 2A	Havalandirma , m ³ /h	642			
Basınç (mbar)	20/300					

Bu Dağalgaz Yakma Sistemleri Uygunluk Belgesi ile başvuran ürünü, burada belirtilen 2422-UD-804024/01 nolu belge ile kullanıları yer dışında başka bir adresde kullanamaz.

İntegra96, yukanda bahsi geçen firmanın ürüne ilişkin sunduğu dökümantasyonu **15 7363** (yılıyıda 11) ve burada atıl yapıları referans yönetmelik ve / veya standartlara göre incelemiştir. Yönetmeliğe ve standartlara göre ürünün ve dökümantasyonun uygunluğu firma sarumluluğundadır. Ürünün üzerinde muayene/denetim sonrası yapıları değişiklikler ürün uygunluğunun sona ermesine sebebiyet vermektedir. Bu antır firmanın isteği üzerine verilmiştir.



SYTEM CONSISTED OF A GAS BURNER, ROTATING MAIN BURNING CHAMBER, WASTE INLET, CYCLONE FILTER, DRAFT FAN, SECONDARY BURNER AND CHIMNEY.

SYSTEM WORKS AS FOLLOWS;

AT THE BEGINING BURNER LOCATED ON THE LEFT HAND SIDE IS LIT. THEN

WASTE IS PUSHED INTO BURNING CHAMBER THROUGH "WASTE IN" PIPE. ONCE THE WASTE TO BE BURNED INSIDE THE BURNING CHAMBER IT PROCEEDS TO THE LEFT BECAUSE OF TURNING AND PUSHING EFFECT OF ROTARY CHAMBER. MAIN BURNING CHAMBER IS ROTATED BY SPEED CONTROLLED ELECTRIC MOTOR. AS IT IS PROCEEDING TO LEFT IT GETS DRIER. WHEN THE DRIED MATERIAL MEETS THE FLAME OF THE BURNER IT STARS TO BURN. THEN AFTER ASHES FALLS DOWN THROUGH "ASH OUT" PIPE. AFTER A CERTAIN TEMPERATURE IS REACHED BURNER STOPS AUTOMATICALLY. AS THE "DRAFT FAN" SUCKS THE SMOKE FROM THE BURNING CHAMBER SMOKE MOVES FROM LEFT TO RIGHT, AS MOVING IN COUNTER DIRECTION WITH WASTE TO BE BURNED. AS HOT GASES CONTACT WITH THE WASTE , WASTES GET DRIER AND FINALLY BURNS EASILY. IN SUCH A MANNER ENERGY IS SAVED AND FLUE GASES BECOME COOLER.

FLUE GASES LEAVE BURNING CHAMBER FROM TOP OF THE RIGHT HAND END. AS THE FLUE GASES PASS THROUGH CYCLONE FILTER, PARTICULATE MATTER IN FLUE GAS SEDIMENTS AT THE BOTTOM OF THE CYCLONE FILTER. AFTER CYCLONE FILTER, FLUE GASES PASS THROUGH DRAFT FAN AND ENTERS TO SECONDARY BURNING CHAMBER. IN SECONDARY BURNING CHAMBER UNBURNED HYDROCARBONS AND CARBONMOXIDE ARE BURNED BY MEANS OF SMALL BURNER. THEN FLUE GASES LEFT TO THE ATMOSPHERE AS BEING IN THE RANGE OF LEGAL LIMITS.

TECHNICAL PARAMETERS

ELECTRICAL ENERGY CONSUMPTI	ION : 10 KW MAX.
GAS CONSUMTION (LPG)	: 2KG
INCINERATION RATE	: 250-500KG/HOUR
MAIN BURNING CHAMBER	: 8MM STEEL HALF WAY COVERED WITH SPECIAL CEMENT.
OUTSIDE IS INSULATED WITH STO	DNE WOOL.
DRAFT FAN	: SPEED CONTROLLED
CONTROL PANEL	: CONTROLLED BY EASY TO USE PLC

NEM ORANI	%80	%70	%60	%50	%40	%30	%20
LPG TÜKETİMİ(KG/SAAT)	22	19	16,5	14	11	8,3	5,5

YUKARIDAKİ DEĞERLER BELİRTİLEN NEM ORANLARINDAKİ SUYU TAMAMEN BUHARLAŞTIRMAK İÇİN GEREKEN YAKIT MİKTARLARIDIR. %40 VE DAHA DÜŞÜK NEMLİ OLANLAR FIRIN YAKILIP BELİRLİ SICAKLIĞA ULAŞTIKTAN SONRA EKSTRA LPG KULLANMADAN YANABİLECKTİR. BUNA GÖRE ELİMİZE GELEN ÇÖP %70 NEM ORANINA SAHİPSE BUNU %40 <u>A DÜŞÜRMEMİZ</u> GEREKİR YANİ (19-11=8). %70 NEMLİ ÇÖP İÇİN SAATTE 8 KG LPG YE İHTİYAÇ VAR.

%50 NEMLİ OLURSA (14-11=3) SAATTE 3 KG LPG YE İHTİYAÇ VAR.

MOISTURE CONTENT	%80	%70	%60	%50	%40	%30	%20
LPG CONSUMPTION (KG/H)	22	19	16,5	14	11	8,3	5,5

Material	Mass received per day. kg	% ağırlıkça Orijinal temel	Humi dity % by mass	Dry matter % by mass	Ash %	Mass of combust ibles per day (kg)	Lower calorific value calories/gr
Polyurethan	2312	0,56	30,00	1618	0	1618	6200
Medicine	210	0,05	0		0		0
Polyethylene (PE)	23854	5,81	32,38	16130			8900
Diapers+ woman pad	2732	0,67	34,11	902	0	902	7420
Clothes	11245	2,74	21,9	8782	0	8782	5100
PET	2188	0,53	29,44	1544	0	1544	5300
Polypropylene (PP)	3252	0,80	0	4360	0	4360	9700
Rubber	786	0,19	0	1054			
Detergent containers	1879	0,46	0	2519	0.9		10700
Metal	1093	0,27	0	1465	0	0	0
Glass	3086	0,75	0	4136	0	0	0
Shoes	1135	0,28		1522	0	1522	4351
Cable	420	0,11	0	564	0	0	0
Paper	2329	0,57	46,00	1986	0	1986	4297
Small mixed plastics	143388	35,00	32.38	129978	20	103982	7720
Rest	205602	50,11	43,00	157103	30	109972	7720
	405511			•			
	Outage 4769					234668	

NOTE: After sorting recyleable materials the rest is burned to generate electricity. Burning 1tonne/hour= 1MW electricity/

01,July,2019

CONTRACT

- 1- This contract has been signed between TALYA MÜHENDİSLİK LTD. and Environmental Engineer Adnan MENGİ.
- 2- Subject of this contract is to manufacture of package type biological waste water treatment systems according to enforcing regulations.
- 3- Engineer will provide the project drawings to and material specifications to TALYA MÜHENDİSLİK LTD. in accordance with the customers demand.
- 4- Engineer will specify the pumps, diffusers, blower etc. which will be used in the project.
- 5- TALYA MÜHENDİSLİK LTD. will manufacture the waste water treatment system as indicated by the engineer.
- 6- Engineer will control the waste water treament system while it is being manufactured.
- 7- At the end of manufacturing process engineer will check the sytem , if everything is done according to Project or not. If everything is done according to Project then sytem will be delivered to customer.

TALYA MÜHENDISLİK LTD .ŞTİ TALYA MUHENDISLIK INSAAT TICARET SAN. LTD. STI. Mandurlar Mahallesi Altinoluk Cad. No:66/1 Tel: 0242 427 48 08 Aksu/Antalya/Türkiye Kurumlar V.D.: 817 019 9295 Mersis: 0817 0199 2950 0012

Adnan MENGI Environmental. Eng.

















ROCAKONG GREEN TRADING CO., Ltd

exclusive distributor Rotary waste incinerator & waste water treatment #40B, Street 222, Sangkat Boeung Reang, Khan Daun Penh, Phnom Penh, CAMBODIA. Phone: +(855) 011 688 075 / 092 333 076 Email: <u>rocakong.green@gmail.com</u>







WASTE WATER TREATMENT