

Technical Data Sheet

Pyrum Innovations® Recycling Unit
incl. some additional equipment



Last Update: 18.10.2016

I. Technical data of Pyrum® Thermolysis Unit

Pyrum Innovations® 5.000 to/a Unit = 1 module	
Main characteristics	
Annual mass flow rate (granulate)	5.000 to/a
Hourly mass flow rate (granulate)	650 - 1.000* kg/h
Granulate size spectrum	3 - 15 mm
Hours of plant operation	7.800 h/a
Size of unit incl. Steelwork and stairs	11 m x 9 m x 25 m
Operation mode	continuous shift operation
Operating temperature	350 - 750°C (input depending)
Gas engine exhaust	according to Euro 4
End products quantities (depending on Input Material)	
Pyrum coke average	266 - 380* kg/h
Pyrum oil average	350 - 500* kg/h
Pyrum process gas	84 - 120* kg/h
Area requirements / Storage capacity	
Technical Equipment	4.000 m ²
Storage areas for End products	min. 1.000 m ²
Granulate Storage	min. 70 to
Oil Storage	min. 40 m ³
Gas Storage	min 15 m ³
Environment and climate data	
max. outside temperature	50°C
min. outside temperature	-20°C
max. temperature inside building	40°C
min. temperature inside building	minus 10°C
Humidity max.	90%
Altitude of factory	< 300 m above MSL
cooling water	25°C
earthquake zone	none

* depending on granulate size. The smaller the granulate, the higher the capacity of the unit.

The above mentioned data are for one 5.000 to/a rubber granulate unit which has the worst performance of all our processes. By using other input materials the annual mass flow rate will be strongly increased. To increase the capacity of the Pyrum Thermolysis unit, additional 5.000 to/a units will be added. As a matter of fact the capacity of a Pyrum Thermolysis factory can be increase in 5.000 to/a steps. The advantages of this principal are important: less maintenance, perfect redundancy, treatment of different input materials at once... and many more.

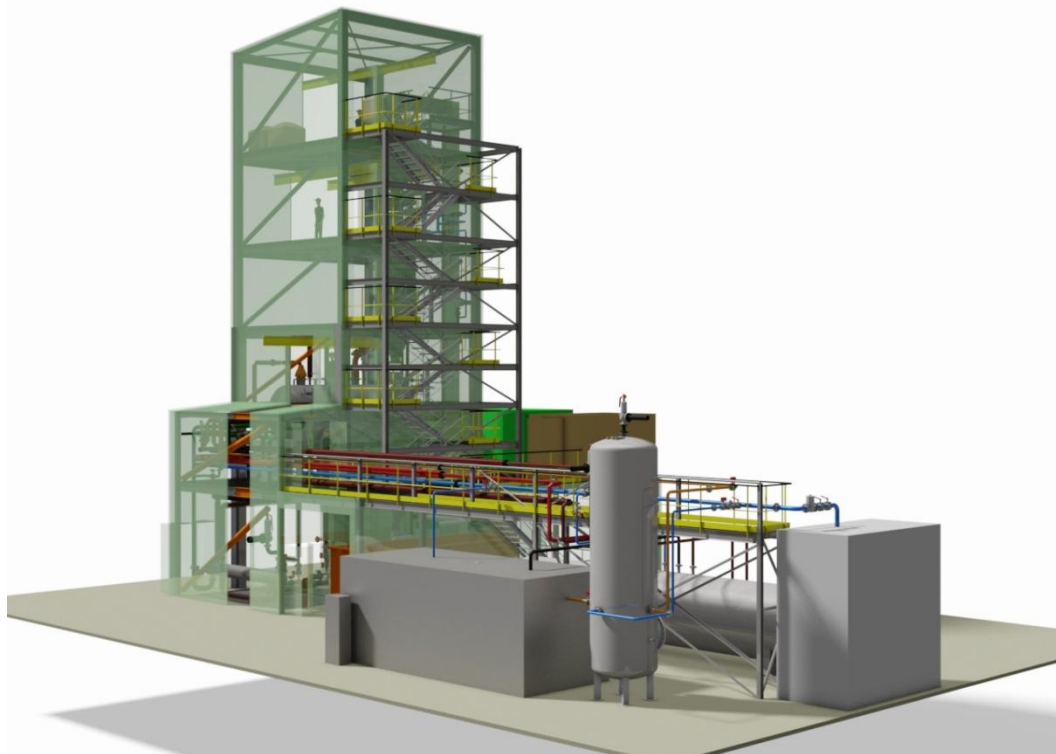
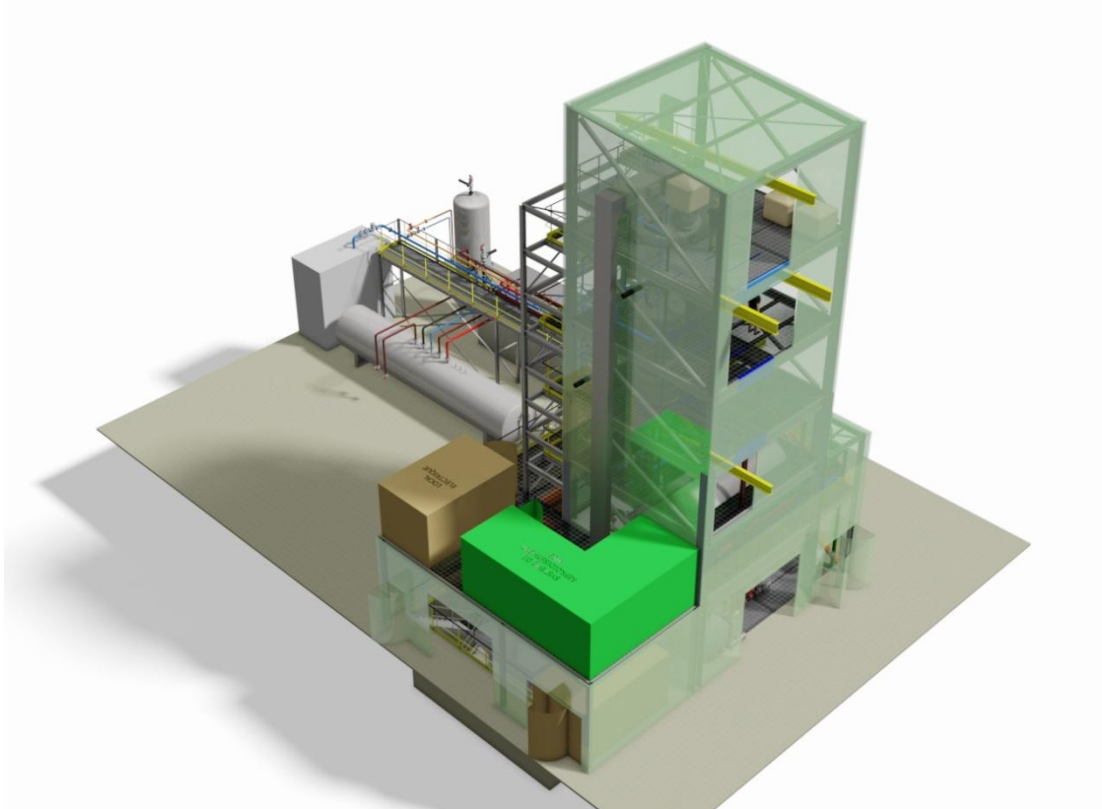


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- Plan of the Pyrum® Thermolysis 5.000 to/a Unit



Pyrum Innovations ESC GmbH
Dieselstraße 8
66763 Dillingen / Saar

St.-Nr.: 010/116/04494
USt-IDNr.: DE262048646
Amtsgericht Saarbrücken HRB17282

Supported by:



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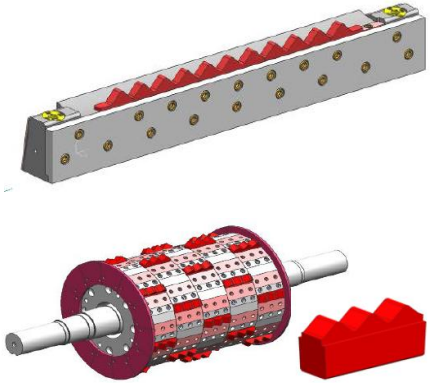
II. Shredding Unit for granulate and steel extraction

- All calculation are based on the following operation hour (a 24h Operation is also possible):

Operating hours		
	Pre-Shredder	Granulator
hours/day	8	20
days/week	5	5
hours/year	2.500	5.000

- Technical date of Pre-Shredder and Granulation Unit:

Pre-shredder Unit			
	Truck Tires	Car Tires	Picture
max. diameter	1.200 mm	750 mm	
Tractor tires (precutted)	1.800 mm		
max. cap of tire width	600 mm	400 mm	
hourly input capacity	15 to/h	7 to/h	
average weight 1 unit	80 kg	8 kg	
Output material	< 100 x 100 mm	< 100 x 100 mm	
Drive capacity	2 x 75 kW		
Voltage	400 V, 50 Hz		
Weight	49,3 to		
Packaging (not incl.)	7 x 40" container		

Granulator				
	Truck Tires	Car Tires	Picture	
Input material	Shredds 100 mm	Shredds 100 mm		
capacity	3,5 to/h	3,5 to/h		
Output				
average rubber fraction	70%	65%		
average steel fraction	25%	20%		
average fiber fraction	5%	15%		
General data				
Drive capacity	355 kW			
Voltage	400 V, 50 Hz			
Weight	69,8 to			
Packaging	4 x 40" container			

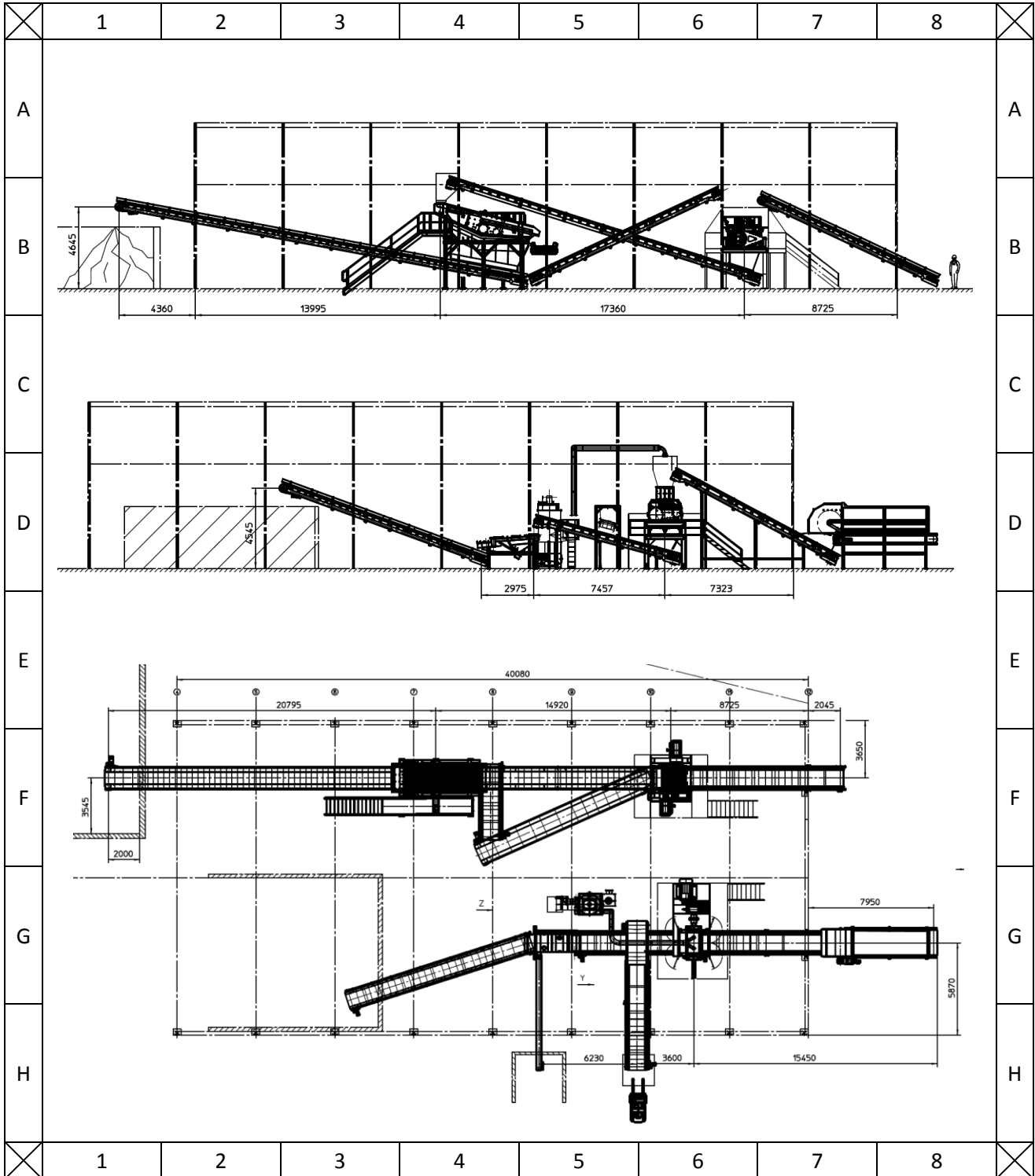


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○ Plan of Shredder Unit





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III. Cogeneration Unit

Cogeneration Unit		Picture of Outside view
Format	40" container	
Total weight	38 to	
Lenght	12.192 mm	
Large	2.438 mm	
High	2.591 mm	
Output Electric Power	400 kW	
Output thermal energy	500 kW	
Output Voltage	230/400 V	
Frequenzy	50Hz	
Engine		Picture of Engine
Manufacturer	MAN	
Type	E 2842 LE322 V12	
Input	Pyrum process gas	
Noise emissions	45 dB (A) at 10m	
Thermal Efficiency	50,40%	
Electrical Efficiency	39,30%	
Total efficiency	89.7%	
Nbr. Of cylinder	V 12	

IV. Air Compressor

Air Compressor		Pictures
Technical Data		
Manufacturer	Atlas Copco	
Type	GA 11- FF + Tank	
Aspiration pressure	1 bar	
Engine Power	11 kW	
RPM of Engine	2.910 min-1	
max. power Consumption	12 kW	
min. power consumption	2 kW	
Air temperature (output)	25°C	
Noise ISO 2151	60dB(A)	
Output pressure	5,5 - 12,75 bar	
Electrics and Size		
Input voltage	400 V	
Frequenzy	50 Hz	
Size	1.245/710/1.240 mm	
Weight	300 kg	



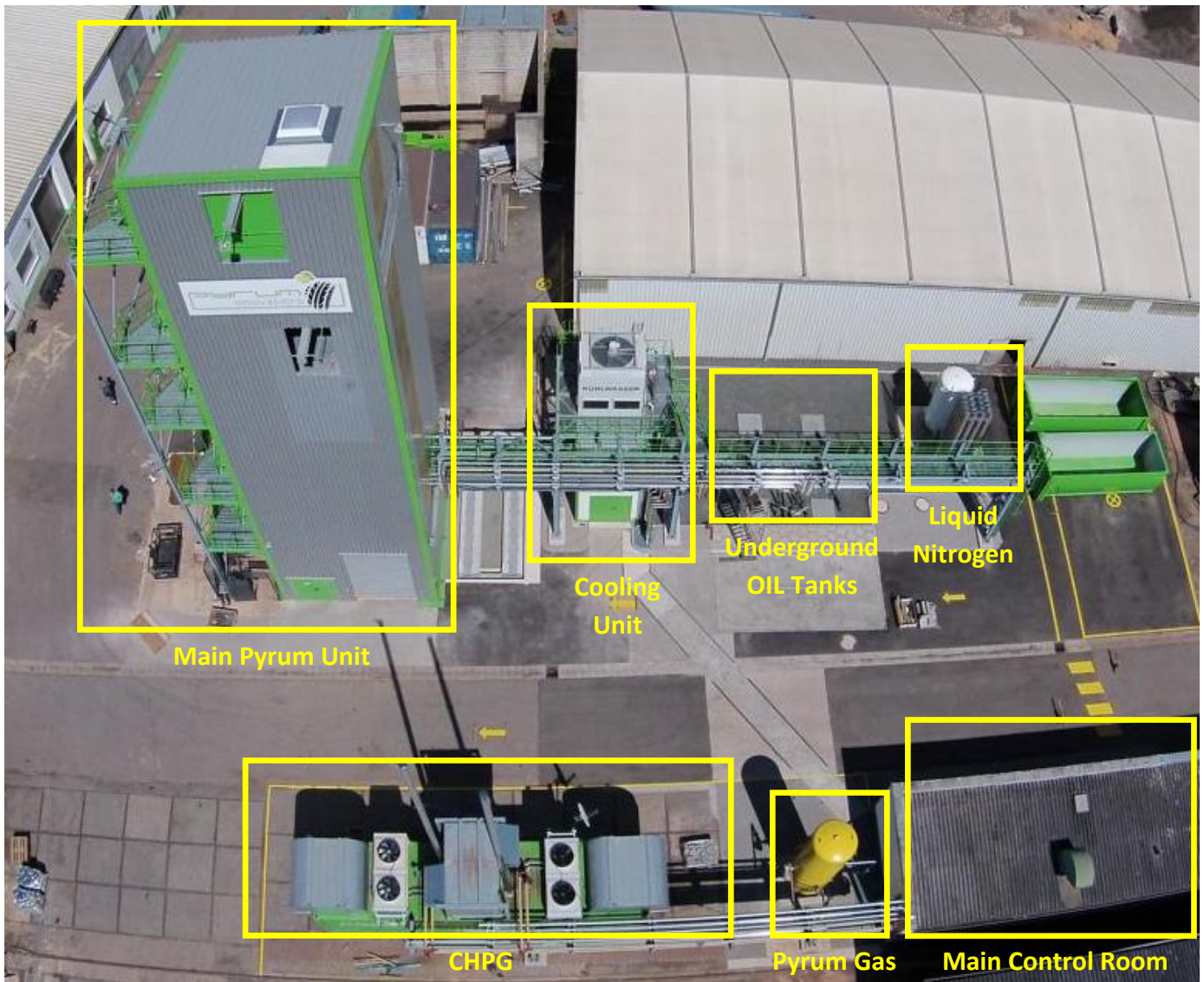
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V. Example of a factory

- 5.000 to/a Unit (Dillingen/Germany)



For more details please visit: www.pyrum.net

or

write to : contact@pyrum.net



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