

# 6040 CARBONIZER



ADVANCED, COST-EFFECTIVE AND ENVIRONMENTALLY APPEALING  
WOOD DEBRIS CONVERSION.

**Tigercat**<sup>®</sup>  
Tough • Reliable • Productive

The 6040 carbonizer is unique to the industry, providing environmentally sound and productive on site conversion and reduction of wood debris.



## KEY BENEFITS

- ▶ Environmentally friendly wood conversion process
- ▶ Achieves up to 90% reduction of organic wood debris feedstock
- ▶ Produces a high-quality organic carbon product, sequestering up to 30% of the available carbon
- ▶ Gasses are combusted in the controlled secondary combustion zone resulting in very low emissions
- ▶ High throughput, no feedstock preprocessing required
- ▶ Excellent mobility for off road work sites
- ▶ Adjustable conveyor simplifies handling and management of the organic carbon product
- ▶ Sealed quenching trough with integrated automatic water level control fully quenches the carbon

## INSIDE THE CARBONIZING CHAMBER

- ▶ Specially formulated thermal-ceramic panels store and utilize the heat energy produced from the carbonizing process to provide equalized and sustained internal temperatures, along with low back-face temperatures. The replaceable panel seal plate design further enhances internal temperature stability and reduces panel wear
- ▶ The result is reduced emissions, greater infeed rates, a higher quality organic carbon and increased yield



## PIVOTING CONVEYOR

- ▶ Integrated bolt-on discharge conveyor with 105 degree swing and 3,65 m (12 ft) clearance for easy handling of organic carbon product output
- ▶ The conveyor stows away within the width and height envelope of the machine for convenient road transport



## WATER SYSTEM

- ▶ Reliable water delivery from tanks, trucks, or external sources
- ▶ Auger trough bath quenches carbon, with smart sensors maintaining water levels
- ▶ Optional sprinkler system covers 11 m (35 ft) radius with adjustable cycles
- ▶ Optional cold-weather plumbing package

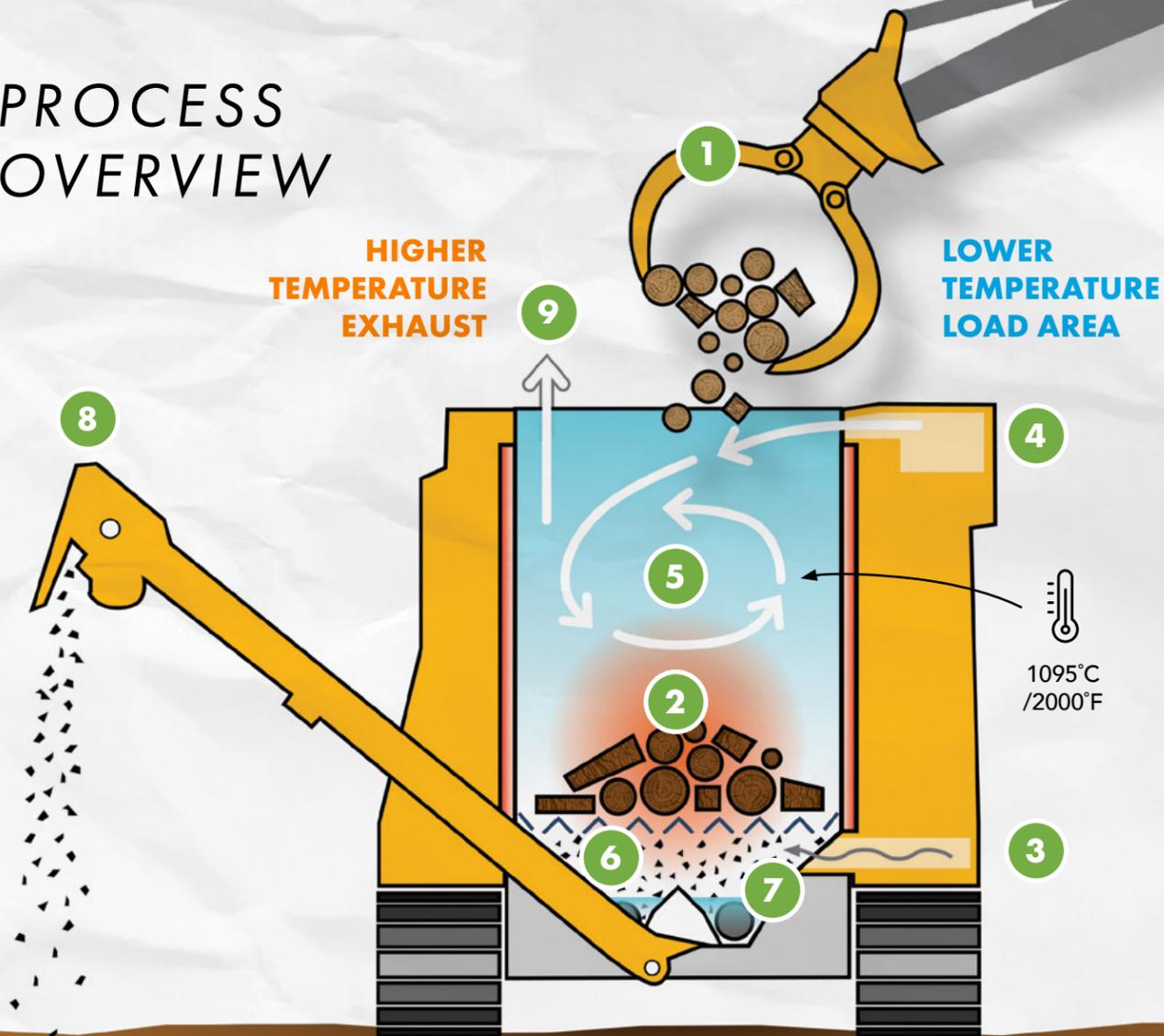


## CONTROL AND INFORMATION SYSTEMS

- ▶ Tigercat Industries designed operating system and telematics information system provides a simple, intuitive interface and an excellent operator experience
- ▶ Temperature control sensors located throughout the machine monitor for optional carbonizing performance
- ▶ Powerful engine diagnostic and service support tools for maximum uptime
- ▶ Telematics logs operating data



# PROCESS OVERVIEW



1 **Load feedstock**  
(no preprocessing required)

2 **Primary combustion**

3 **Under-air supply**  
provides upward pressure

4 **Over-air supply**  
creates vortex

5 **Secondary combustion**

6 **Organic carbon**  
falls through grates

7 **Quenched**  
in waterbath

8 **Conveyed away**

9 **Fresh oxygen**  
mixes to cool exhaust

# 3 T'S OF COMBUSTION



## TEMPERATURE

Thermal ceramic sidewalls maintain consistent high chamber temperatures (1095 °C/2000 °F).



## TURBULENCE

The dual airflow system directs trajectory, volume, and velocity to create a vortex zone that combusts released gases.



## TIME

Gases held in secondary combustion area (vortex) for 3 - 4 seconds for full combustion.



## 6040 RESULTS

**A negative emissions process yielding a near-pure carbon product.**

- ▶ Reduced particulate emissions (PM2.5-PM10)
- ▶ No contamination of organic carbon product
- ▶ High quality organic carbon



## LIVE STREAM VIDEO MONITORING

The carbonizer sequesters carbon for beneficial reuse while reducing total fibre volume onsite.



## REMOTE CONTROL

Simple and easy to operate.



## Primary Applications

- ▶ Forestry and land clearing
- ▶ Primary and secondary mill residue
- ▶ Agriculture
- ▶ Municipal Vegetation

## Primary Benefits

- ▶ High processing capacity
- ▶ Low operating cost
- ▶ Operator friendly
- ▶ Easy mobility
- ▶ Eco-friendly solution



90%  
VOLUME  
REDUCTION

## SIGNIFICANT SAVINGS

- ▶ No cost if spreading on site
- ▶ Low cost if moving the product



# GET TO KNOW IT



## 6040 CARBONIZER

WEIGHT: 37 650 kg (83,000 lb)

WIDTH: 3,66 m (12 ft)

POWER: 151 kW (202 hp)



Scan the QR code then click 'SPECS' for a full list of machine specifications for the 6040 Carbonizer.

**Download the Tigercat Industries App or visit [tigercat.com](http://tigercat.com) to access the most current machine specifications for all Tigercat and TCi machine models.**

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