

# TITECH x-tract

WITH **DUOLINE®** TECHNOLOGY



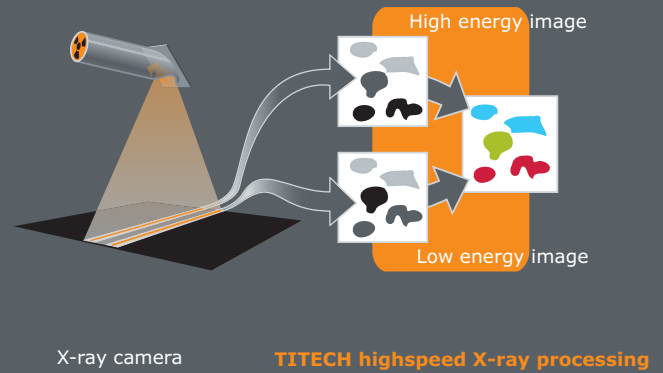
**PRODUCT DETAILS**

english

*Innovation in Global Recycling*



- 1 Feeding of unsorted material
- 2 X-ray camera
- 3 X-ray source
- 4 Separation chamber



## TITECH x-tract

**The TITECH x-tract identifies materials irrespective of their surface. With X-ray technology it can separate substances on the basis of their atomic density and is so able to separate material concentrates into different material types.**

### TECHNOLOGY

The completely new separation technology of the TITECH x-tract uses an electric x-ray source which creates a broad-band radiation in the energy range of 80 KeV to 160 KeV. This radiation penetrates the segregation material and, when attenuated, hits an X-ray camera with DUOLINE® sensor using two independent sensor lines with different spectral sensitivity. The data supplied by this camera is classified using TITECH high speed x-ray processing. So the atomic density of the materials can be identified and this is largely accomplished regardless of the material thickness.

*Resolution // The TITECH x-ray camera has a maximum resolution of 0.8 mm.*

### BENEFITS

- Extremely fast payoff
- Highest selectivity
- Identification irrespective of the surface
- Very robust design
- Highest safety standard
- Good adaptability to customer requirements
- Emergency service hotline

**EXAMPLE // SEPERATION OF INERT MATERIAL FROM ORGANIC WASTE**

In mixed waste streams with high organic contents like household- or C&I waste inert pollutants can be a major problem. For example in Spain the digestion of organic household waste is a standard process generating bio gas energy from methane, CH4. TITECH's x-tract system uses X-ray technology, scans the input stream and removes non-organic contaminants (e.g. glass, stones & metals) that could either damage the digester equipment or adversely affect the efficiency (availability) of the process by displacing target organic materials.



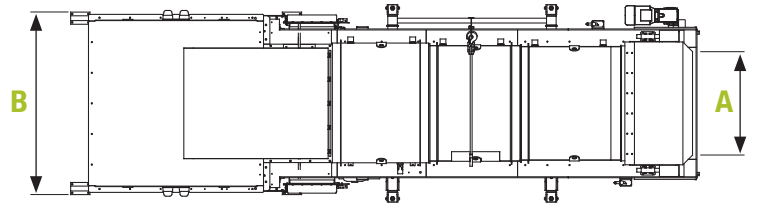
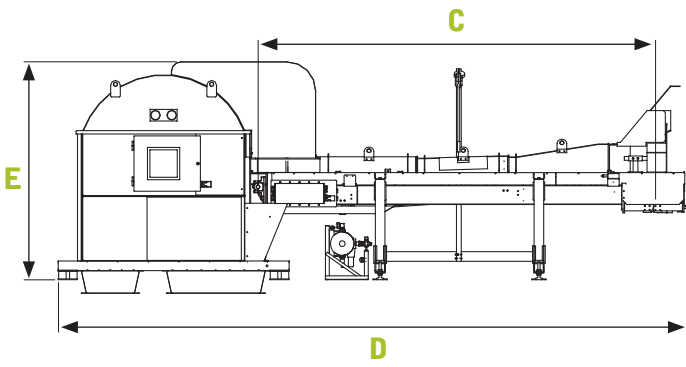
TITECH offers a variety of configurations for different sorting tasks and conditions. You are welcome to check your individual material in our test facility. E-mail: test@titech.com

**SENSOR CONFIGURATIONS**

- A //** Economy model for separation of materials of lower thickness and lower atomic density, 90 KeV X-ray energy and up to 1000 W – **XRT basic**
- B //** Flexible and high efficiency model for separation of materials of greater thickness and higher atomic density, 160 KeV X-ray energy and 500 W power – **XRT standard**
- C //** More powerful x-ray source for highest penetration of materials. This improves the range of thickness and the separation quality for special applications. 160 KeV X-ray energy and 1000 W power – **XRT extended**

**MODELS**

STANDARD APPLICATION PACKAGES		A	B	C
<b>ALUMINIUM cleaning</b>	Producing a more valuable clean aluminium fraction by sorting out heavy metals like copper, brass, zinc, lead, ...		●	●
<b>CRT sorting</b>	Producing clean mono fractions of panel glass (lead free) and funnel glass (high lead content)		●	●
<b>RDF production</b>	Producing refused derived fuel by sorting out PVC, glass, stones, metals	●	●	●
<b>ORGANIC sorting</b>	Producing a clean organic fraction and a clean non-organic fraction for landfill	●	●	●
<b>PVC removal</b>	Removing flame retardants like chlorine and bromine out of a mixed plastic stream	●	●	●
<b>METAL</b>	Additional removal or suppress of metals	Option: electromagnetic (EM) sensor		
<b>SPECIAL APPLICATION</b>	On request	●	●	●



Installation example of TITECH x-tract standard or extended

	x-tract* 600	x-tract 1200
A //	600 mm	1,200 mm
B //	1,300 mm	1,900 mm
C //	4,162 mm	4,162 mm
D //	6,535 mm	6,535 mm
E //	2,264 mm	2,264 mm

## TITECH x-tract

Valve block model, nozzle distance	x-tract* 600	x-tract 1200		
Economic, 12.5 mm Power, 6.25 mm Speed, 6.25 mm	24 valves 48 valves 96 valves	48 valves 96 valves 192 valves		
Weight Power Consumption	4800 kg 9.1 kW	5800 kg 9.1 kW		

### OPTIONS

#### EM sensor

Uses conductivity information for metal recognition

#### Wear and tear package

Heavy duty version for higher robustness and a longer life

#### Remote Access

Safe network connection for easy and fast service reaction

### PRODUCT RANGE

TITECH autosort  
Mixed packaging waste, RDF, Sorting paper, PET/PE recycling

TITECH finder  
Metal recovery and metal contaminant removal

TITECH combisense  
E-scrap recycling, nonferrous metal processing, cable recycling

TITECH x-tract  
Automobile recycling, CRT glass, industrial/domestic waste, RDF production

\*not available in configuration A // XRT basic

## Innovation in Global Recycling



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Keep up to date with  
sensor-based sorting at:

**WWW.TITECH.COM**