



## **STEINERT XSS T**

**X-Ray Sorting System**

> Minerals, ore, coal, plastics, wood,  
incineration bottom ash and non-ferrous scrap

# STEINERT XSS T

## X-Ray Sorting System

The X-Ray Sorting System XSS T creates exciting new possibilities for automated sorting of mixed material. The STEINERT XSS T uses a “Dual Energy” system to determine material density while overcoming the effects of thickness and shape. It “sees” through the pieces, recognizing different material densities, different metals, components containing halogens, and organics. Composite materials and embedded items (screw, nails) can be also recognized. This X-Ray sensing enables light metals to be sorted from heavy metals, PVC from plastics, stone from wood chips.

### Applications

The STEINERT XSS X-Ray Sorting System greatly increases the range of possibilities for sorting mixed minerals.

### Technology

The absorption depends on both the solid density and material thickness. The larger the atomic mass and the thicker the material, the greater the absorption. In order to compensate, the thickness of the material to be sorted is analysed on two different energy levels known as “Dual Energy”. This allows the software to measure the absorption specific for the material.

A common feature of all STEINERT sorting systems is that every individual particle in the material flow is recognized and classified.

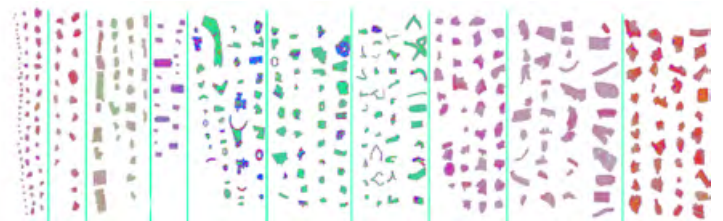
The long, fast-running belt ensures that the particles are singulated and homogeneously distributed. While they pass the X-Ray source and camera, they are recognized and classified in a fraction of a second according to pre-set criteria programmed in the flexible system software.

If classification matches the previously defined criteria, the particle is ejected by a powerful blast of compressed air out of reliable, fast-action compressed air valves.

One important application of the X-Ray Sorting System STEINERT XSS T is the separation of mixed light and heavy metals, such as the mixed non-ferrous product from eddy current separators. The STEINERT XSS T makes it possible to separate aluminium and magnesium from the heavy metals fraction such as copper, zinc and lead. It is also possible to separate cast aluminium from wrought aluminium as well as heavy metal alloyed aluminium from other aluminium.

When processing minerals, metal bearing rock can be separated from metal-poor rock or coal from stone. This saves large amounts of energy in the area of fine milling and fine particle sorting, thus substantially improving the economics of current mineral processing operations.

Composite materials and even surface details in organic materials can also be recognized and separated by the X-Ray Sorting System STEINERT XSS T. Even plastics and wood can be separated





## Technical data

- **Sorting principle:**  
Density separation based on X-Ray transmission
- **Grain size:** 10 - 200 mm
- **Throughput:** up to 100 m<sup>3</sup>/h\*m (depend on application)
- **Working width:** 1000 mm, 2000 mm
- **Durability X-Ray Source:** 20.000 h
- **Durability sensors:** 40.000 h

H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	▼	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
Fr	Ra	▼	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Cn	Uut	Fl	Uup	Lv	Uus	Uuo
La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu			
Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr			





**STEINERT Elektromagnetbau GmbH**

Widdersdorfer Straße 329–331  
50933 Köln  
Germany

Phone: +49 221 4984-0  
Fax: +49 221 4984-102  
E-mail: [sales@steinert.de](mailto:sales@steinert.de)  
[www.steinert.de](http://www.steinert.de)

**Tochtergesellschaften**

Subsidiaries

**STEINERT GmbH**

Hirschfelder Ring 9  
D-02763 Zittau  
Germany  
Phone: +49 3583 540-840  
Fax: +49 3583 540-8444  
E-mail: [sales@steinert.de](mailto:sales@steinert.de)  
[www.UniSort.de](http://www.UniSort.de)

**North America**

STEINERT US Inc.  
285 Shorland Drive  
Walton, KY 41094  
U.S.A.  
Phone: +1 800 595-4014  
Fax: +1 800 511-8714  
E-mail: [sales@steinertus.com](mailto:sales@steinertus.com)  
[www.steinertus.com](http://www.steinertus.com)

**Australia/Asia**

STEINERT Australia Pty. Ltd.  
14 Longstaff Road  
VIC 3153, Bayswater  
Australia  
Phone: +61 3 8720-0800  
Fax: +61 3 8720-0888  
E-mail: [sales@steinert.com.au](mailto:sales@steinert.com.au)  
[www.steinert.com.au](http://www.steinert.com.au)

**Japan**

STEINERT Japan Co. Ltd  
703 President Roppongi  
3-2-16, Nishi-Azabu  
Minato-ku, Tokyo 106-0031  
Japan  
Phone: +81 3-6804-5607  
Fax: +81 3-6804-5608  
E-mail: [sales@steinert.jp](mailto:sales@steinert.jp)  
[www.steinert.jp](http://www.steinert.jp)

**South America**

STEINERT Latinoamericana Ltda.  
Av. Heráclito Mourço de Miranda, 2080  
Bairro Castelo  
31330-382 Belo Horizonte  
Brazil  
Phone: +55 31 3372-7560  
Fax: +55 31 3372-6995  
E-mail: [steinert@steinert.com.br](mailto:steinert@steinert.com.br)  
[www.steinert.com.br](http://www.steinert.com.br)

**Niederlassungen**

Branches

**China**

STEINERT China Ltd.  
Room 1009, Building B,  
Jinhai Wealth Commercial Centre,  
Baiziwaxili, Chaoyang District,  
Beijing 100124  
China  
Phone: +86 1059694456  
Fax: +86 1059694459  
E-mail: [china@steinert.de](mailto:china@steinert.de)  
[www.steinertchina.com.cn](http://www.steinertchina.com.cn)

**Singapore**

STEINERT Asia  
33 Maude Road #02-01  
Singapore 208344  
Phone: +65 62939556  
Fax: +65 62988231  
E-mail: [singapore@steinert.de](mailto:singapore@steinert.de)  
[www.steinertasia.com](http://www.steinertasia.com)

**Africa**

STEINERT Africa  
IMS Engineering (Pty) Ltd  
10 Derrick Road, Spartan  
Kempton Park, 1620  
Republic of South Africa  
Phone: +27 10 001 8200  
Fax: +27 11 970 3200  
E-mail: [south-africa@steinert.de](mailto:south-africa@steinert.de)  
[www.imsengineering.co.za](http://www.imsengineering.co.za)

Subject to technical changes.

Your local STEINERT consultant:

