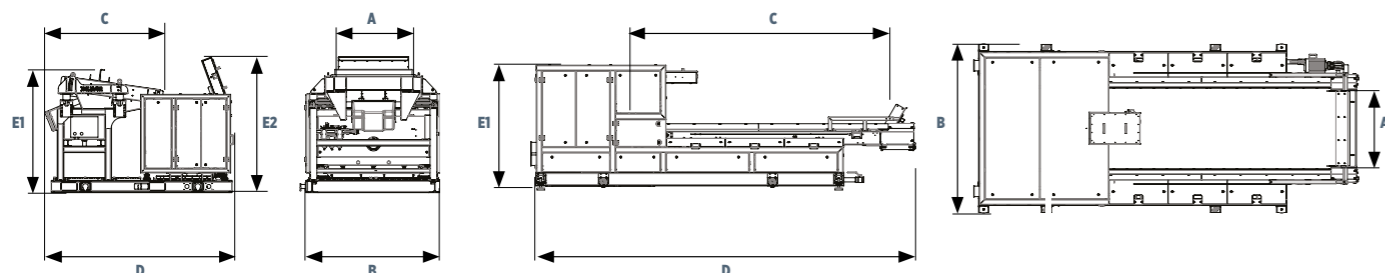


Installation example: COMBISENSE [chute]

Installation example: COMBISENSE [belt]



	600 [belt]	1200 [belt]	600 [chute]	1200 [chute]
A	600 mm	1,200 mm	1,400 mm	1,200 mm
B	1,980 mm	2,480 mm	1,550 mm	2,150 mm
C	3,960 mm	3,960 mm	1,730 mm	1,730 mm
D	5,650 mm	5,650 mm	2,770 mm	2,770 mm
E1	1,830 mm	1,830 mm	1,850 mm	1,850 mm
E2	-	-	1,990 mm	1,990 mm

exact dimensions on request

PRODUCT SPECIFICATIONS

VALVE BLOCK MODEL, NOZZLE DISTANCE	600 [belt]	1200 [belt]	600 [chute]	1200 [chute]
TS1500 8 mm	-	144 valves	-	-
TS170 6.25 mm	-	192 valves	-	-
TS280 4.5 mm	134 valves	-	-	-
TS100 4 mm	-	-	152 valves	304 valves
Weight*	3,300 kg	3,800 kg	2,700 kg	3,300 kg
Power Consumption*	9.4 kW	9.4 kW	9.4 kW	9.4 kW

OPTIONS

SENSOR HEIGHT ADJUSTMENT

For improved adaptability to special application needs

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

AUTOSORT

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

FINDER

Metal recovery and metal contaminant removal

COMBISENSE

E-scrap recycling, nonferrous metal processing, cable recycling

X-TRACT

Automobile recycling, CRT glass, industrial/domestic waste, RDF production

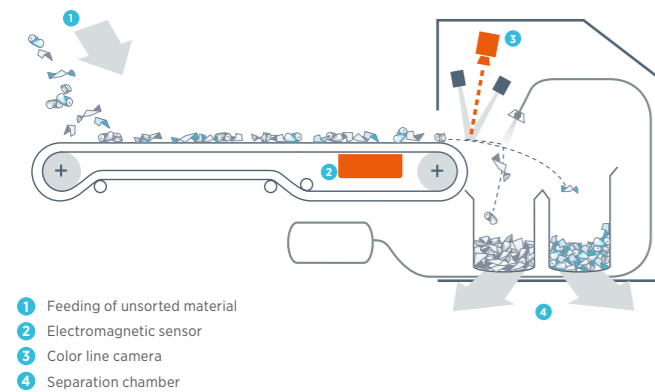
COMBISENSE

WITH FLUIDCOOL® LED TECHNOLOGY



COMBISENSE

The COMBISENSE is a specialized high end machine to separate high purity metal fractions from even the most difficult fractions in terms of composition, grain size and mix from mixed waste and metal streams.



TECHNOLOGY COLOR

The identification technology used in the new COMBISENSE generation consists of a sensor with increased sensitivity and a color line scan camera with even higher resolution and color selectivity. It collects multiple material characteristics at the same time. The information can be combined by efficient and unique digital image processing with precise location even on a pixel level. So the different materials are precisely identified. The illumination unit consists of state-of-the-art, liquid-cooled LED technology, enabling steady and reproducible sorting results. A new mechanical design provides for a higher endurance and robustness.

BENEFITS

- + Extremely fast payoff
- + Highest sensor sensitivity
- + Stable color identification with highest resolution
- + Latest LED illumination technology – very long-lasting and steady
- + Very high purity
- + Very precise separation behaviour also for fine grain
- + Emergency service hotline



FLUIDCOOL® LED technology increases light stability and so extremely steady sorting results

RESOLUTION

For separation of very fine material grain sizes a resolution of 0.35mm is available.

EXAMPLE // E-SCRAP RECYCLING

Printed circuit boards are a particularly valuable component of electronic scrap. Such complex composite materials do not only contain aluminium, but also metalloids and precious metals such as copper, silver, gold and platinum. With its highly sensitive identification technology the COMBISENSE can isolate these valuable printed circuit boards largely homogeneously from a material flow of plastic, metals, cables and composite materials. The circuit board fraction thus extracted can then be fed to a special metal recycling process.



SENSOR CONFIGURATIONS

- A //** The combination of a high resolution color line scan camera and an electromagnetic (EM) sensor with highest sensitivity delivers information for sorting materials by color, shape, brightness, size and conductivity – **CRGB-EM**
- B //** Using a high resolution color line scan camera this model can process fine metal granulates to produce highest purity mono fractions like copper – **CRGB** (“spectra”)
- C //** For fines material, e.g. copper granulate a special mechanical setup was developed - **CHUTE**

STANDARD APPLICATION PACKAGES		MODELS		
		A	B	C
MIXED METALS SEPARATION	Producing clean mono fractions out of a metal mix, e.g. copper, brass, grey metals	●	●	
ESCRAP SORTING	Producing clean mono fractions, e.g. printed circuit boards, copper	●		
METAL RECOVERY	Recovering all metals out of a mixed input stream	●		
STAINLESS RECOVERY	Producing a clean stainless steel fraction out of a mixed input stream	●		
PLASTICS RECOVERY	Recovering all colored plastics with suppressing metals	●		
FINES SORTING	Purifying of fines metal fractions, e.g. copper granulates, removing lead and other impurities			●
SPECIAL APPLICATIONS	On request	●	●	●

TOMRA Sorting offers a variety of configurations for different tasks and conditions. You are welcome to check your individual material in one of our test centers. E-mail: recycling-sorting@tomra.com