WWW.MACPRESSE.COM

MACPRESSE EUROPA

RENEWABLE ENERGY & ENGINEERED FUELS

- MUNICIPAL SOLID WASTE PROCESSING
- RECYCLING RAW MATERIALS
- RENEWABLE ENERGY & ENGINEERED FUELS
- PAPER INDUSTRY

HEADQUARTER

SERVICE & MAINTENANCE

MACPRESSE PRODUCTS, OUR DISTINCTIVE VALUES

PRODUCTION EFFICIENCY
cutting efficiency and power production optimisation (m3/h), high output specific weight.

REMOTE SOFTWARE SUPPORT
integrated troubleshooting modem.

ENERGY SAVING
first class hydraulic pumps.

MACPRESSE TYING
highly customisable system using plastic wire, steel wire or double steel wire.

HIGH WEAR RESISTANCE
Patented HARDOX steel liners.

HIGH EFFICIENCY MOTORS
simple and safe maintenance.

MACPRESSE QUALITY PROCESS

LIFE CYCLE OF MACPRESSE PRODUCTS, FROM DESIGN TO ON-SITE ASSEMBLY

STEP 1
DESIGN

STEP 2
COMPUTER NUMERICAL CONTROL (CNC)

STEP 3
STRUCTURAL STEEL CYCLE

STEP 4
PAINTING

STEP 5
TESTING

STEP 6
STORAGE

STEP 7
DELIVERY

STEP 8
ON-SITE ASSEMBLY

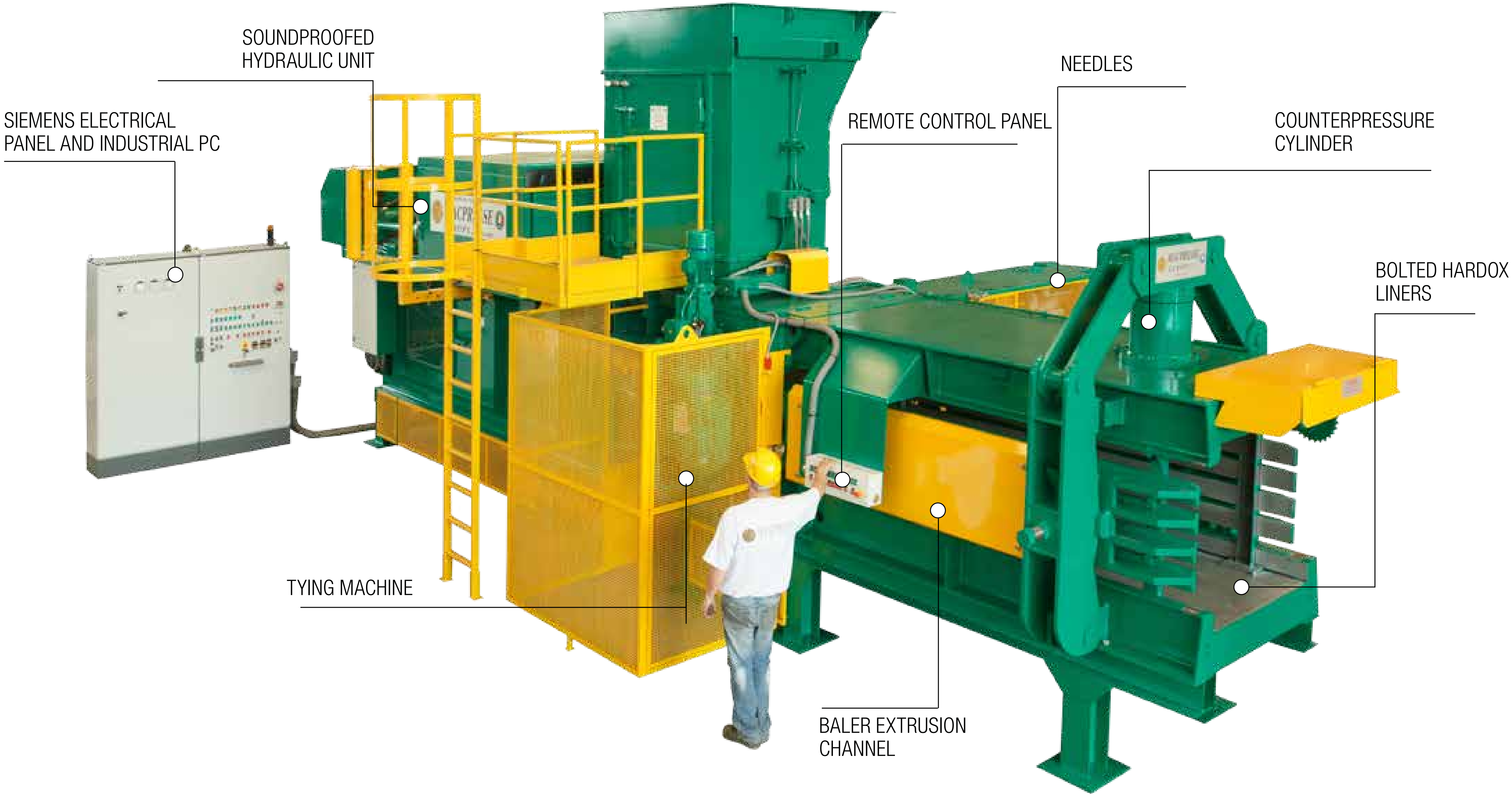
STEP 9
COMMISSIONING

STEP 10
LOCAL TECHNICAL SUPPORT IN 40 COUNTRIES

STEP 11
SPARES STORE

SERIE MAC

RENEWABLE ENERGY & ENGINEERED FUELS



MATERIALS PROCESSED AND PRODUCTION

	WOOD CHIP	RICE HUSKS	BAGASSE
INFEED DENSITY			
EUROPE	220 kg/m^3	180/200 kg/m^3	180/200 kg/m^3
USA	13.7 lb/ft^3	11.2/12.4 lb/ft^3	11.2/12.4 lb/ft^3

	ALPHA ALPHA	RDF-SRF	MSW
INFEED DENSITY			
EUROPE	100/120 kg/m^3	150/200 kg/m^3	400/450 kg/m^3
USA	6.2/7.4 lb/ft^3	9.36/12.49 lb/ft^3	24.9/28 lb/ft^3

MAC 110L/1

WOOD CHIP

120 HP
MOTOR POWER

CUTTING AND THRUST POWER
170 ton / 374.000 LB

BALE CHANNEL
1100 X 1100 mm
43"x 43"

NO-LOAD PERFORMANCE
600 m^3/h 21.186 ft^3 /h

Note: Performance rates, bale weights and bale densities are subject to moisture content, material pre-bale densities, feed rates nand other variables in baling.

BIOMASS COGENERATION PLANTS
RECYCLING WOOD TREATMENT PLANTS

CHIPPED WOOD MAY BE USED AS FUEL OR RAW FEED STOCK FOR INDUSTRIAL PROCESSES; WOOD CHIP MAY ALSO BE USED IN BIOMASS AND COGENERATION POWER PLANTS.
THE BALING OF THIS MATERIAL ALLOWS THE TRANSPORT AND STORAGE COSTS TO BE REDUCED, AND ALSO REDUCES THE RISKS OF SPONTANEOUS COMBUSTION.

CORE VALUE

MAC BALERS ARE DESIGNED SPECIFICALLY FOR HIGH RESISTANT AND ABRASIVE MATERIALS ALLOWING THE BEST PROCESSING FOR WOOD CHIP.

CLOSE-UP DETAIL WOOD CHIP

HIGH HOURLY PRODUCTION RATE

WRAPPING CYCLE

TEMPORARY STORAGE

MAC 111/1

RICE HUSK

2X75 HP
MOTOR POWER

CUTTING AND THRUST POWER
170 ton / 374.000 LB

BALE CHANNEL
1100 X 1100 mm
43''x 43''

NO-LOAD PERFORMANCE
750 m^3/h 26.500 ft^3 /h

Note: Performance rates, bale weights and bale densities are subject to moisture content, material pre-bale densities, feed rates nand other variables in baling.

RICE PRODUCTION FACTORIES, COGENERATION POWER PLANTS

RICE HUSKS ARE PRIMARILY GENERATED IN CHINA,INDIA AND AFRICA WHERE LARGE RICE PRODUCTION IS PRODUCED. RICE HUSKS HAVE A VERY LOW SPECIFIC WEIGHT. BALING DOUBLES THIS WEIGHT PROVIDING SUBSTANTIAL SAVINGS FOR TEMPORARY STORAGE AND TRANSPORTATION COSTS.
THE HUSK MAY BE USED AS FUEL IN BIOMASS POWER PLANTS.

CLOSE-UP DETAIL OF RICE HUSK

CORE VALUE

THE HUSK OBTAINED FROM RICE PROCESSING IS AN EXCELLENT FUEL. MAC BALERS CAN BALE UP TO 30 TONS/HOUR OF THIS MATERIAL.

EXCELLENT INTEGRITY OF BALES, PLASTIC TYING

BALES STORAGE BELT

TEMPORARY STORAGE

MAC 111/1

ALPHA ALPHA

2X75 HP
MOTORS POWER

CUTTING AND THRUST POWER
170 ton / 374.000 LB

BALE CHANNEL
1100 X 1100 mm
43"x 43"

NO-LOAD PERFORMANCE
750 m^3/h 26.500 ft^3 /h

Note: Performance rates, bale weights and bale densities are subject to moisture content, material pre-bale densities, feed rates nand other variables in baling.

PROCESSING FODDER AND SILAGE

USING THE MAC BALERS THE FODDER IS COMPRESSED INTO DENSE BALES WITH IDEAL WEIGHTS AND DIMENSIONS FOR CONTAINER TRANSPORT.
WRAPPING THESE BALES IN PLASTIC FILM PROTECTS THEM FROM THE WEATHER AND UV RAYS AND PRESERVES THE ORGANOLEPTIC PROPERTIES.

CLOSE-UP DETAIL ALPHA ALPHA

CORE VALUE

MACPRESSE MAKES BALERS FOR BALING ALPHA ALPHA WITH A PRODUCTION WHICH MAY REACH UP TO 30 TONS/HOUR

3:1 DENSITY RATIO

PLASTIC TYING

TEMPORARY STORAGE

MAC 111AS/1

BAGASSE

2X100 HP
MOTORS POWER

CUTTING AND THRUST POWER
170 ton / 374.000 LB

BALE CHANNEL
1100 X 1100 mm
43"x 43"

NO-LOAD PERFORMANCE
960 m^3/h 33.900 ft^3 /h

Note: Performance rates, bale weights and bale densities are subject to moisture content, material pre-bale densities, feed rates nand other variables in baling.

SUGAR REFINERIES, BIOETHANOL PRODUCTION PLANTS

BAGASSE IS A BY PRODUCT OF PROCESSING SUGAR CANE. A RESIDUE OF STALKS AND FIBRE WHICH CONSTITUTES 25-30% OF THE INITIAL MASS OF PROCESSED CANE. BAGASSE MAY BE USED IN VARIOUS WAYS AS A SECONDARY RAW MATERIAL, BUT IT IS USED MAINLY AS FUEL FOR STEAM GENERATION.

CORE VALUE

MACPRESSE PRODUCES BALERS FOR BALING AND WRAPPING SUGAR CANE

CLOSE-UP DETAIL DETAIL BAGASSE

PLASTIC TYING

BALES STORAGE BELT

IDEAL DIMENSIONS FOR TRANSPORT

MAC 107/1

WOOD CHIP

100 HP
MOTOR POWER

CUTTING AND THRUST POWER
95 ton / 209.450 LB

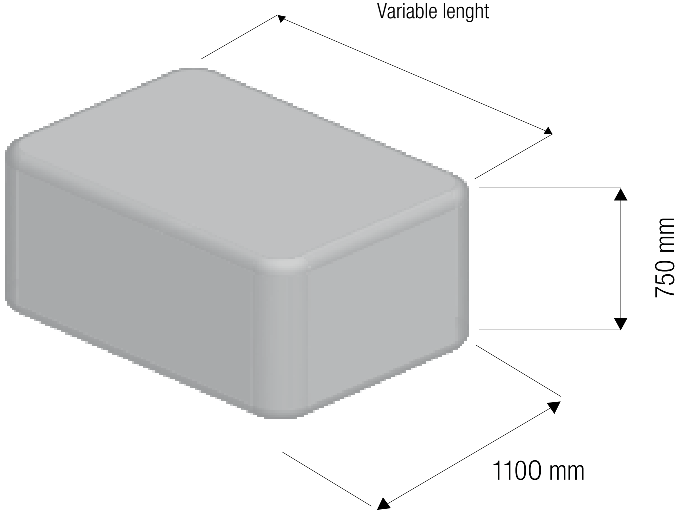
BALE CHANNEL
1100 X 1100 mm
43″x 29″

NO-LOAD PERFORMANCE
465 m^3/h 16.420 ft^3 /h

Note: Performance rates, bale weights and bale densities are subject to moisture content, material pre-bale densities, feed rates nand other variables in baling.

ROAD
TRANSPORT

BALE DIMENSIONS ARE IDEAL FOR OPTIMIZING TRANSPORT.
THE TOTAL RAM THRUST PRODUCED PROVIDES IDEAL DENSITY OF THE BALES REDUCING TRANSPORT AND STORAGE COSTS.



CORE VALUE

THE MAC 107/1 MODEL HAS A LARGE HOPPER AND A BALE FORMAT OF 110 X H 75 CM; THIS ALLOWS THE LOADING OF THREE VERTICAL ROWS ON ALL MEANS OF SEA, TRUCK OR RAIL TRANSPORT.

BALES DIMENSIONS DESIGNED FOR OPTIMUM CONTAINER LOADING

IDEAL INTEGRITY OF BALES

BALING PRESS

MAC 107/1 - MAC 108/1 SEMI-MOBILE

THE MAC 107/1 AND MAC 108/1 BALERS CAN BE SKID MOUNTED FOR FAST LOADING AND UNLOADING FOR EASY RELOCATION OF WORKING SITE .
THESE MODELS CAN BE INSTALLED ON A METAL PLATFORM WITH ALL THE NECESSARY COMPONENTS FOR THE OPERATION, SUCH AS, ELECTRICAL PANEL, TYING UNIT AND REELS OF STEEL OR PLASTIC WIRE. THIS DESIGN ALLOWS FOR EASY AND FAST RELOCATION OF BOTH THE BALER AND CONVEYORS FOR MSW PROCESSING OR CEMENT PLANTS.

MSW TREATMENT PLANT, CEMENT FACTORIES

MACPRESSE HAS ENGINEERED SPECIAL BALERS DESIGNED TO SEPARATE THE PERCENTAGE OF LEACHATE AND ORGANIC FRACTION FROM MSW. THIS IS DONE BY MAXIMUM COMPRESSION ON THE WASTE COUPLED WITH HIGH COUNTER PRESSURE SQUEEZING AND EVACUATING THE LIQUIDS. THESE BALERS ARE USED IN ANAEROBIC WASTE TREATMENT PLANTS FOR THE PRODUCTION OF ELECTRICITY. THE REMAINING FRACTION CAN BE USED FOR RDF

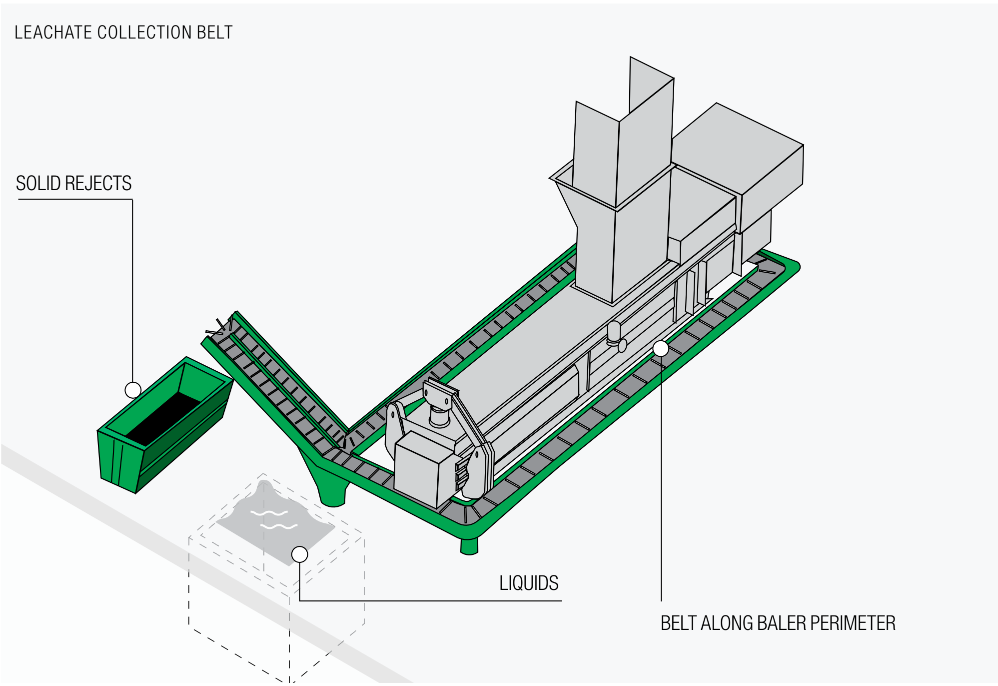
ORGANIC FRACTION OF MSW

400/450 kg/m^3

24.9/28 lb/ft^3

CORE VALUE

BALERS DESIGNED SPECIFICALLY FOR SOLID WASTE ARE NECESSARY, SUCH AS THE MAC 112XL WITH A 200 TON THRUST, IN ORDER TO REMOVE THE MAXIMUM PERCENTAGE OF LEACHATE FROM WASTE.



MAC 111L/1

RDF - SRF

2X75 HP
MOTORS POWER

CUTTING AND THRUST POWER
170 ton / 374.000 LB

BALE CHANNEL
1100 X 1100 mm
43"x 43"

NO-LOAD PERFORMANCE
750 m^3/h 26.500 ft^3 /h

Note: Performance rates, bale weights and bale densities are subject to moisture content, material pre-bale densities, feed rates nand other variables in baling.

REFUSE DERIVED FUEL PLANTS

BIOMASS AND REFUSE DERIVED FUEL (RDF) REPRESENT INCREASINGLY IMPORTANT FUELS FOR COMMUNITIES AND INDUSTRY. THESE ALTERNATIVE MATERIALS CAN BE CONVERTED INTO KW/H OBTAINED FROM “REJECTED ITEMS” FROM THE WASTE STREAM.

CLOSE-UP DETAIL DETAIL RDF-SRF

CORE VALUE

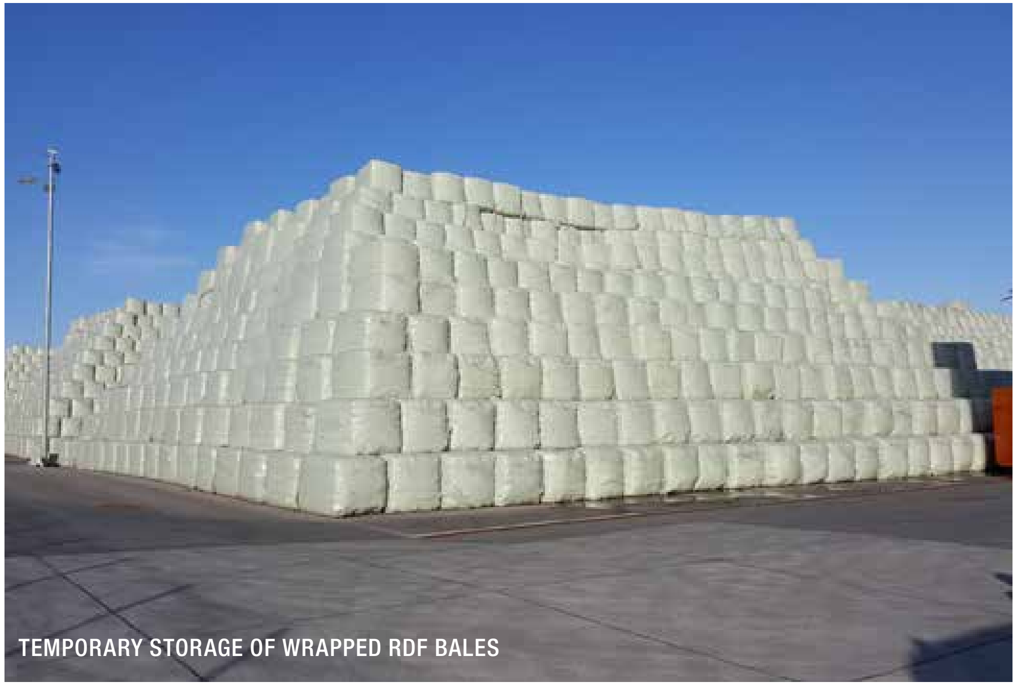
MACPRESSE PRODUCES BALERS FOR BALING AND WRAPPING REFUSE DERIVED FUEL (RDF)
THE HOURLY CAPACITY OF THE PLANT CONSISTS OF TWO PARALLEL LINES THAT ARE ABLE TO PRODUCE UP TO 80 TONS/HOUR.

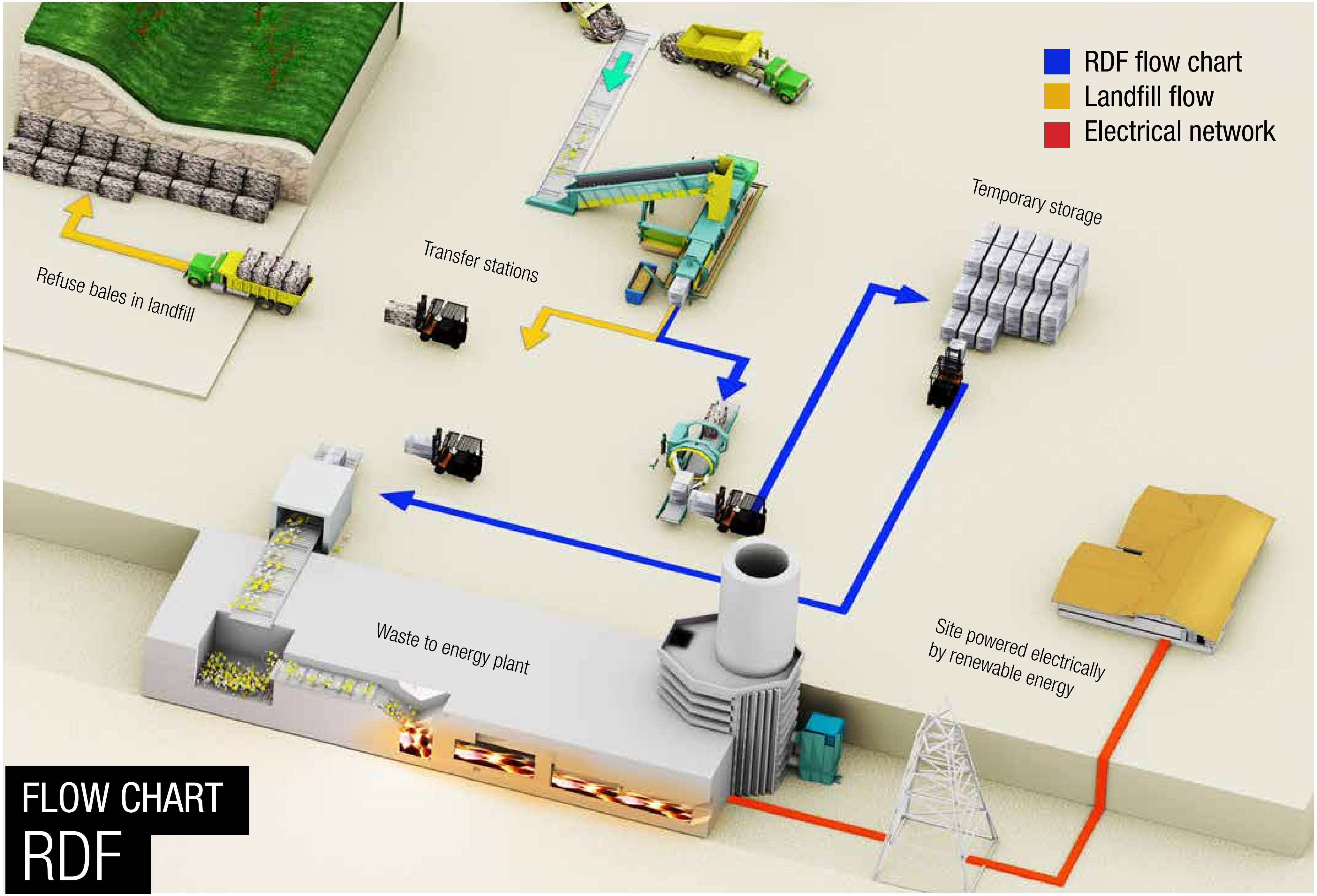
DOUBLE BALING AND WRAPPING LINE 2 X MAC 112


LOOSE RDF


STORAGE OF RDF BALES


WRAPPING CYCLE


TEMPORARY STORAGE OF WRAPPED RDF BALES


RDF flow chart
Landfill flow
Electrical network
Temporary storage
Transfer stations
Refuse bales in landfill
Waste to energy plant
Site powered electrically
by renewable energy
FLOW CHART
RDF

TYING MACHINE CORE VALUE

RELIABILITY ROBUSTNESS FLEXIBILITY EASY MAINTENANCE

FLEXIBILITY OF USE AND LOWER OPERATING COSTS

THIS SYSTEM SIMPLIFIES THE CLEANING PROCESS FOR THE TYING UNIT, PROVIDING INCREASED SAFETY FOR THE OPERATOR. THE MAINTENANCE AND CLEANING OF THE TYING UNIT IS DONE AT FLOOR LEVEL; REPLACEMENT OF BALING WIRE IS AT FLOOR LEVEL, NO PIT NEEDED.

MACPRESSE HAS DEVELOPED A NEW TYING SYSTEM WHICH IS UNIQUE IN TERMS OF ROBUSTNESS AND SIMPLICITY. IT WILL ALLOW UP TO 5 STEEL WIRES TO BE USED. IT IS EXTREMELY FLEXIBLE AND ABLE TO USE EITHER STEEL OR PLASTIC WIRE. FOR PARTICULARLY DIFFICULT MATERIAL SELECTED WIRES CAN BE DOUBLE TIED IF NEEDED.

MACPRESSE HAS BEEN PROVIDING COMPLETE CUSTOMIZED PROJECTS FOR MORE THAN

20+ YEARS


MOBILE TYING UNIT


PLASTIC WIRE TYING


STEEL WIRE TYING


PLASTIC WIRE REELS


STEEL WIRE REELS

TRANSPORT EFFICIENCY

ROAD TRANSPORT

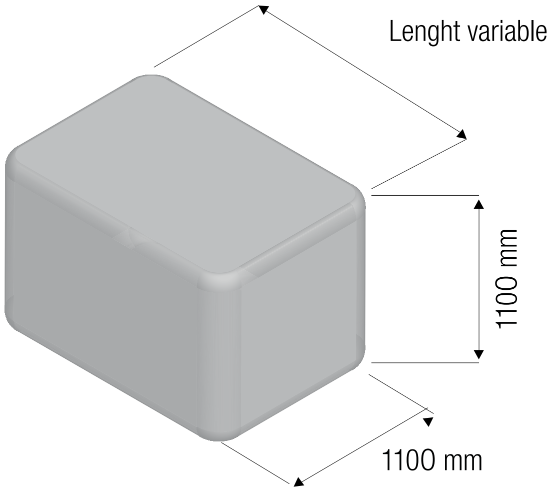
RAIL TRANSPORT

SEA TRANSPORT

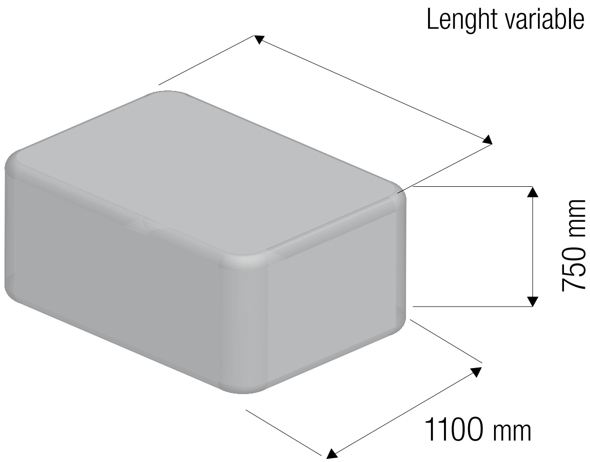
TRUCK TRANSPORT

SEA TRANSPORT

RAIL TRANSPORT



Mac 110/1 - Mac 111/1 - Mac 112XL



Mac 106/1 - Mac 107/1

BALE SIZES ARE DESIGNED TO MAXIMIZE LOADING INTO SEA CONTAINERS, TRUCKS OR RAIL TRANSPORT.

HIGH FLEXIBILITY IN THE SELECTION METHOD OF TRANSPORT

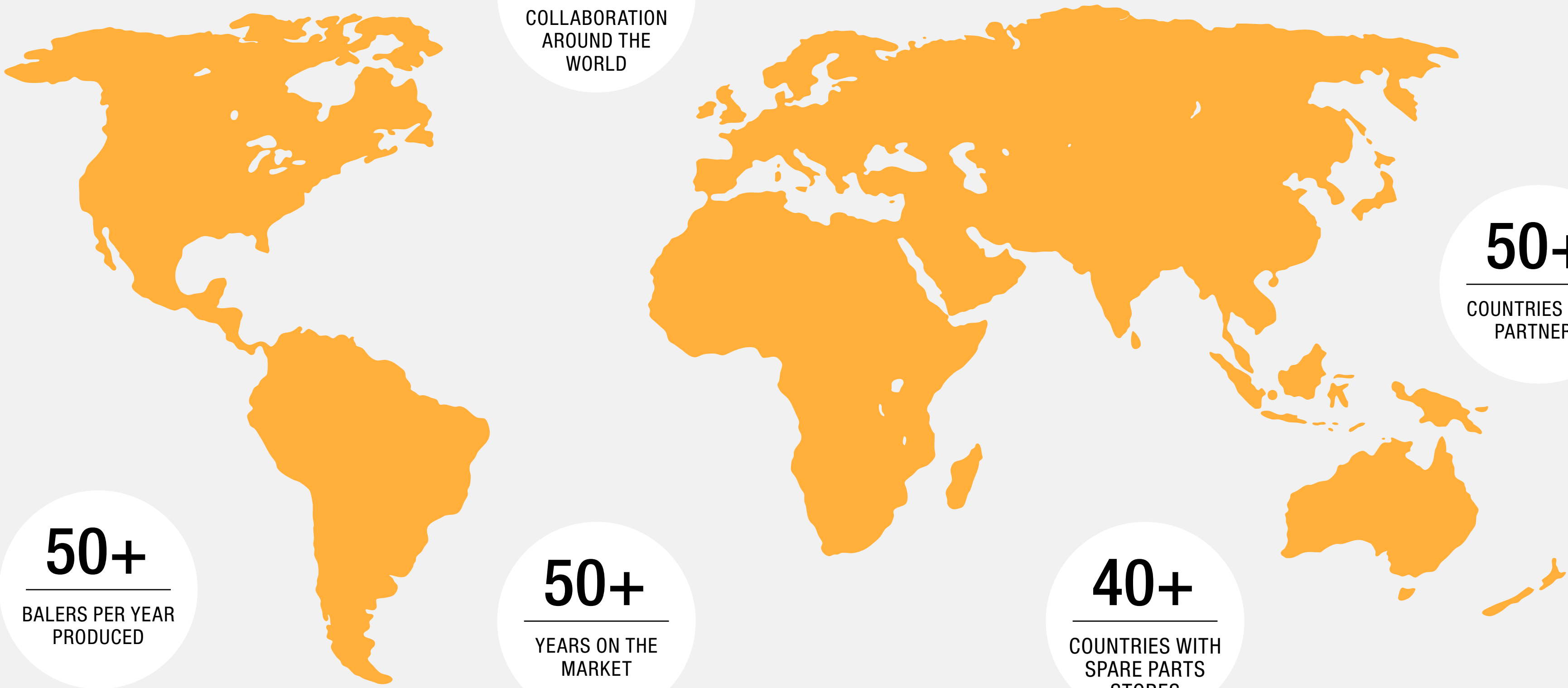
MACPRESSE IN NUMBERS

1500+
BALERS INSTALLED

200+
COLLABORATION AROUND THE WORLD

15+
PROPRIETARY PATENTS

WORLDWIDE
ASSISTANCE



45+
COUNTRIES WITH BALERS NSTALLED

50+
COUNTRIES WITH PARTNERS

50+
BALERS PER YEAR PRODUCED

50+
YEARS ON THE MARKET

40+
COUNTRIES WITH SPARE PARTS STORES

CONTACTS

For futher information visit **www.macpresse.com** or contact us:
e-mail **info@macpresse.com**
tel. **+39 02 905 24 20**

SOLUTION FEATURES

*Macpresse reserves the right to change specifications without notice.

- HIGH DENSITY BALES
- IMPERMEABLE
- EASILY TRANSPORTABLE
- OPTIMUM STORAGE
- SEA TRANSPORT
- ROAD TRANSPORT
- RAIL TRANSPORT