



**ING BONFIGLIOLI**

# *High Performance Mobile Scrap Processing Equipment*

# COMPANY INTRODUCTION

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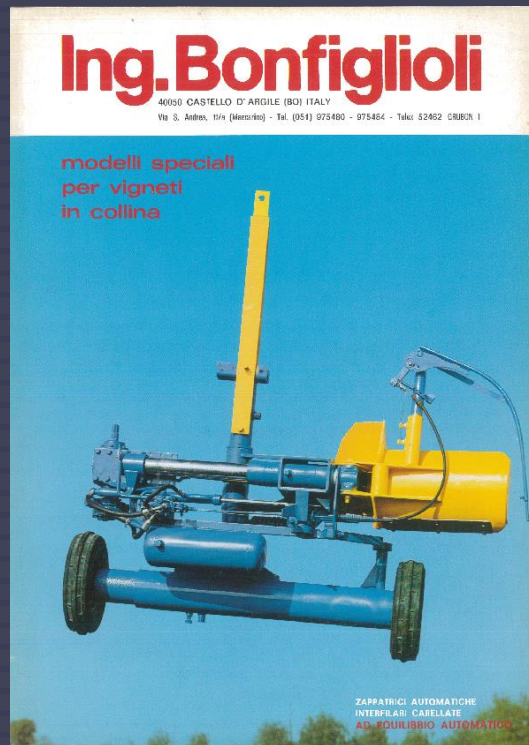
## Family Vision & Management:

- ❖ Our founder **Mr. Gaetano Bonfiglioli** had deposited his first patent for a breeding device in 1932.
- ❖ In 1953 Ing. Bonfiglioli S.p.A was established. The company business core was mainly agricultural equipment.
- ❖ In the mid 60's, **Ing. Giancarlo Bonfiglioli**, expanded the family business from the manufacturing of agricultural and breeding equipment to the production of truck mounted cranes.
- ❖ In the early 80's **Ing. Giancarlo Bonfiglioli** started the manufacturing of scrap the mobile equipment for the recycling and processing of the metal scrap.
- ❖ Today, the company is directed by **Ing. Cesare Bonfiglioli** , who further expanded the family business globally and contributes to spread the Company good reputation worldwide.

# OUR MISSION started in 1953

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## Agricultural machines



COSTRUZIONI MECCANICHE  
**Ing. BONFIGLIOLI**  
(MASCARINO) CASTELLO D'ARGILE - BOLOGNA

+

FRESATRICI AUTOMATICHE INTERFILARI A  
SOLLEVAMENTO IDRAULICO E CARELLATE  
CON CAREGGIATA REGISTRABILE.

FRUTTICOLTORI: ecco una macchina nuova per una agricoltura più moderna.

• barattoli 1000-1500 centri

The image shows a black and white photograph of a Bonfiglioli machine, likely a vineyard harrow, operating in a field. The machine is moving through a dense field of crops, possibly vines, and is leaving a trail of disturbed soil behind it. The machine is a small, tracked vehicle with a large, complex mechanical arm at the rear.

Nella foto: FRESATRICE carellata in un pescheto completamente invaso da malerbe

# LOCATED CLOSE TO BOLOGNA - ITALY

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Location: Castello d'Argile  
Area Extension: 100.000 m<sup>2</sup>

# TRUCK MOUNTED CRANES


5

Started manufacturing of truck mounted cranes in  
1964

AUTOGRU  
**Ing. Bonfiglioli**  
S. ALBERTO - S. PIETRO IN CASALE (BO) TEL. (051) 81.15.08



Trasportatori: quando il tempo è prezioso, occorrono queste macchine sui Vostri automezzi.



Finalmente è risolto il problema delle gru per autocarri di media portata.

**ING. BONFIGLIOLI**



P 18.000

**UNA DELLE NOSTRE REFERENZE**

# SCRAP BALER

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Started manufacturing scrap balers in 1981



# VERTICAL SHEAR

7

Started manufacturing vertical shear in 1987



# HORIZONTAL SHEAR

8

First series of horizontal shear in 1989



# HAMMER MILL SHREDDER

9

Our first hammer mill shredders in 1993



*Ing. BONFIGLIOLI*

with continuous growth

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**TODAY**

# COMPANY FAST FACTS

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- - ❖ Still remains a family owned and run company
  - ❖ Employing approx. 135 people:
    - 38 in the R&D Engineering Dept.
    - 32 in Marketing and Sales Dept.
    - 65 in the Production Dept.
  - ❖ Yearly turnover around 75 million Euro
  - ❖ Excellent reputation thanks to:
    - Strong engineering expertise and manufacturing done in Italy
    - Strong worldwide agents and distributors sales network.
    - Decades of experience
    - Customer and service oriented
    - Flexibility according to market demand

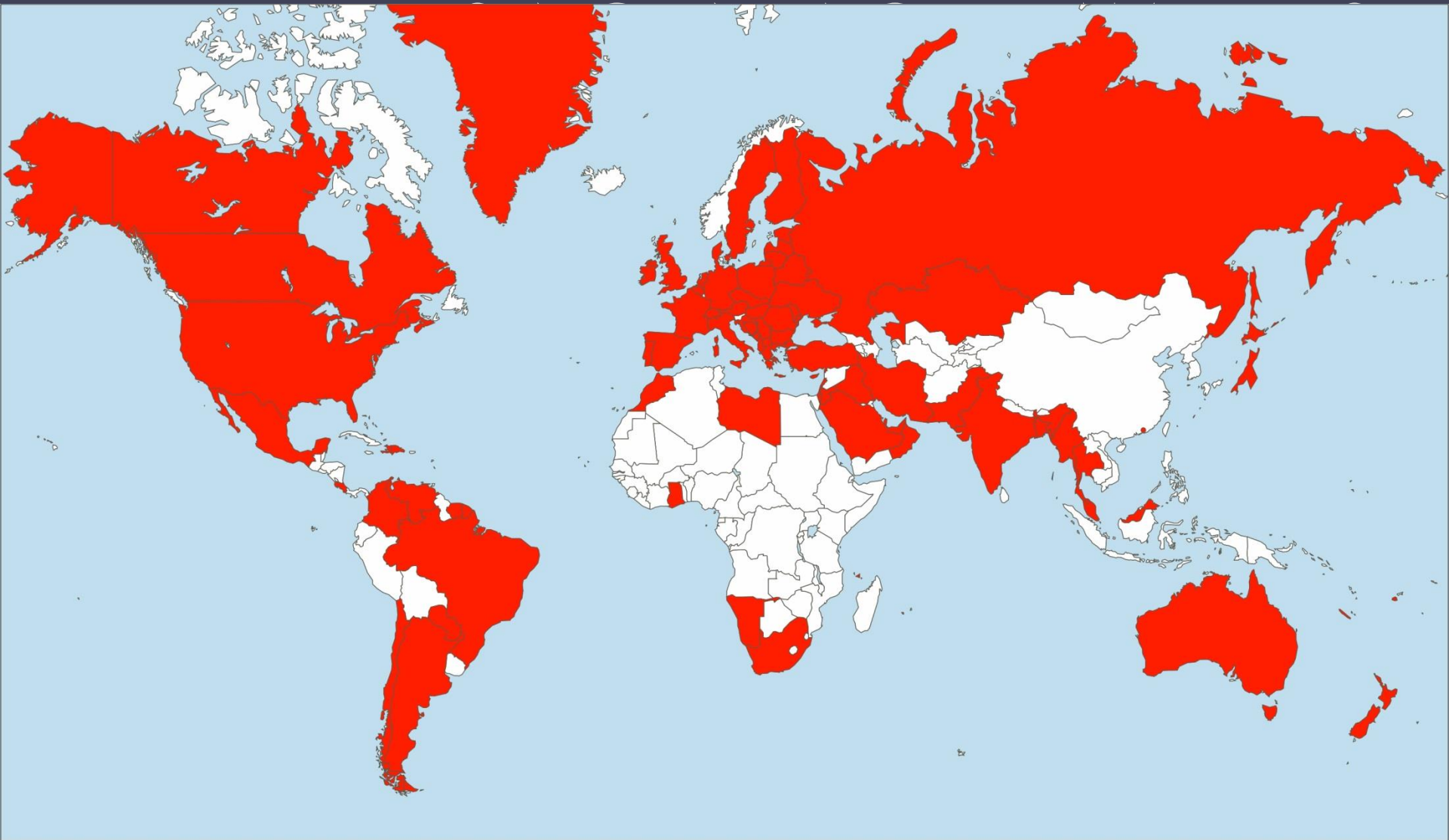
# COMPANY FAST FACTS

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- ❑ P.E.O.C. (Premium Export Oriented Company) awards in 2013-2014-2015
- ❑ R&D Cooperation with the Engineering Dept. – Bologna University
- ❑ ISRI (USA), ARA (USA) and CARI (Canada) active membership with seminars and activities on the side of the associations.
- ❑ Technology Innovation Awards 2007 & 2010



***Ing BONFIGLIOLI S.p.A.***



**Business activities across 5 continents (83 Countries)**

## Units sold worldwide:

- ❖ No. 2,500 Balers
- ❖ No. 2,300 Shears
- ❖ No. 430 Hammermill shredders
- ❖ No. 33,000 truck mounted cranes

# EQUIPMENT RANGE

# TRUCK MOUNTED CRANES

16



# TRUCK MOUNTED CRANES

17

## **Basic Features and Benefits:**

- ❖ Variety of models for different applications (20 different models)
- ❖ Boom outreach from 3 m to 22,10 m
- ❖ Lifting capacity from 0,7 ton to 63 ton
- ❖ Easy to install on truck
- ❖ Easy to operate

# METAL SCRAP PROCESSING LINE

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**The metal scrap line equipment includes:**

- ❖ Mobile baler
- ❖ Mobile horizontal shear
- ❖ Mobile vertical incline shears
- ❖ Hammermill compact shredders

# METAL SCRAP BALER ARIETE

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# METAL SCRAP BALER ARIETE

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## Basic Features and Benefits:

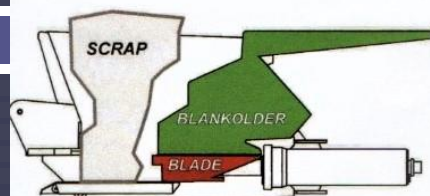
- ❖ Scrap compacting baler with solid monolithic structure in Weldox and Hardox special steel, run by diesel or electric engine, equipped with crane, cab and grab
- ❖ Mobile unit equipped with roll on roll off system. Movable with standard 4-axis truck or with hook lift system
- ❖ Inner box length 4.8m, weight 18.5 ton
- ❖ Bale size: 880 mm x 670 mm x variable length
- ❖ Average output productivity: 8 to 10 ton/hour
- ❖ Average bale density: 0.8 ton/m<sup>3</sup>
- ❖ Ratio of mixed scrap & cars volume reduction is respectively 75% & 80%

# HORIZONTAL SHEAR

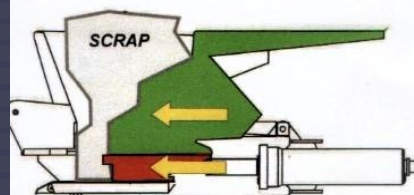
21



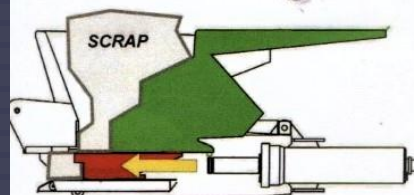
# WORKING CYCLE



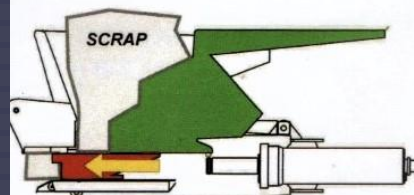
1) OPEN BASIN



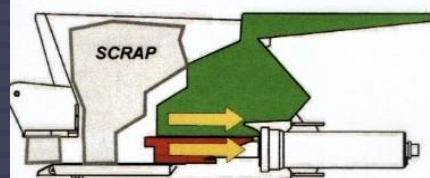
2) BLANKHOLDER AND  
BLADE RAMS MOVE FORWARD



3) BLANKHOLDER STOPS  
AND MOVES ON ONLY THE  
BLADE RAM TO CUT



4) THE CUT IS EFFECTED  
BUT THE BLADE RAM STILL  
MOVES ON TO RELEASE THE  
SCRAP OUT



5) BLANKHOLDER AND  
BLADE RAMS MOVE BACKWARD  
OTHER MATERIAL FALLS DOWN  
AND IS READY TO BE PROCESSED  
FOR A NEW CYCLE

# HORIZONTAL SHEAR SQUALO 1000

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## Basic Features and Benefits:

- ❖ Mobile unit equipped with roll on roll off system. Movable with standard 4-axis truck or hook lift system
- ❖ Cutting force 650 tons
- ❖ Average output productivity: 9 to 12 ton/hour
- ❖ Fixed cutting length: 42 cm
- ❖ Average output material density: 0.6-0.8 ton/m<sup>3</sup>
- ❖ Ratio of mixed scrap & cars volume reduction is respectively 70% & 75%
- ❖ Diesel or electric motor driven, automatic cycle and remote controlled (optional)

# VERTICAL INCLINED SHEARS

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# VERTICAL INCLINED SHEARS

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## Basic Features and Benefits:

- ❖ Different models with different shearing force and capacity(\*)

SQUALO 1500 with productivity up to 15-18 ton/hour

SQUALO 2000 with productivity up to 22-25 ton/hour

SQUALO 3000 with productivity up to 32 ton/hour

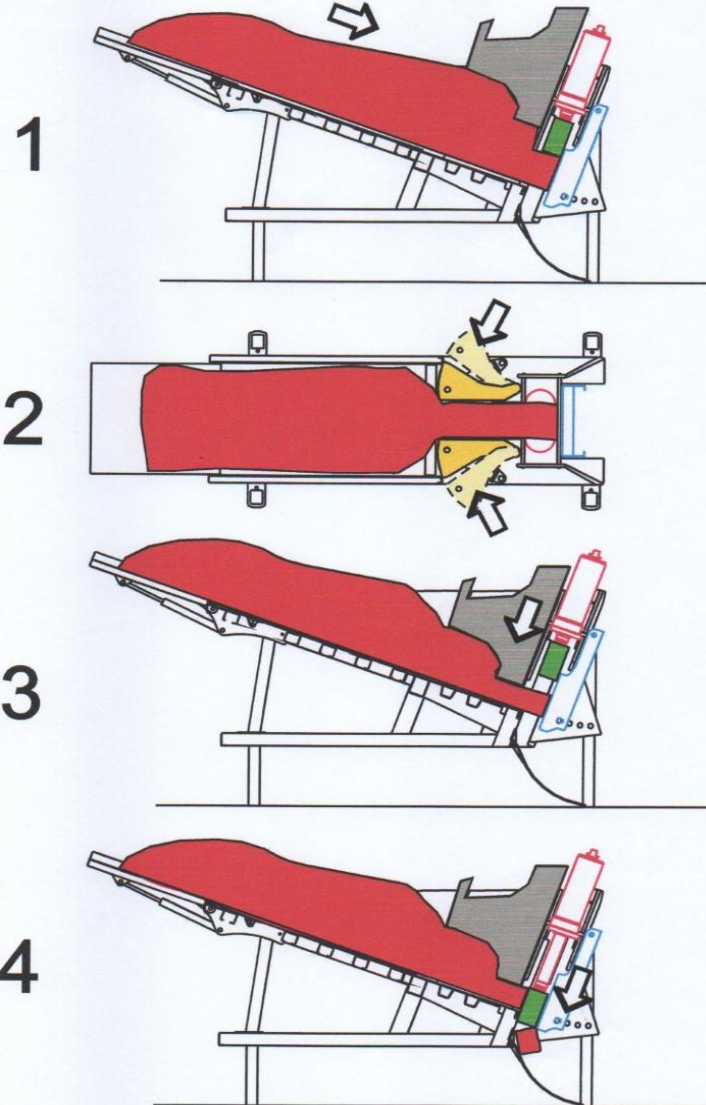
SQUALO 4000 with productivity up to 40 ton/hour

(\*) under normal working conditions, depending on the type, quality & quantity of material and ability of the operator

- ❖ Mobile unit equipped with 4 lifting cylinders, movable with low boy trailer
- ❖ Weight from 57 to 117 ton
- ❖ Shearing force is respectively 1100 ton, 1450 ton, 2000 ton, 2400 ton depending on the models

# WORKING CYCLE

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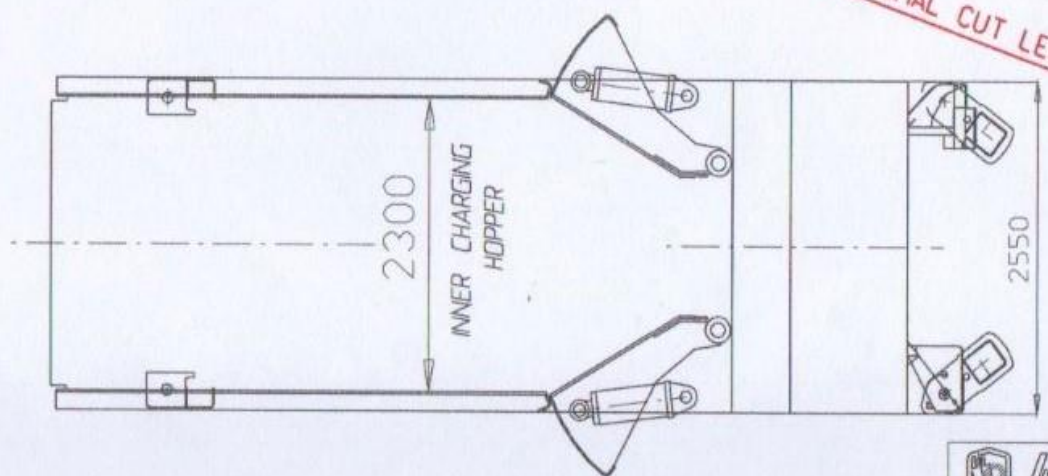
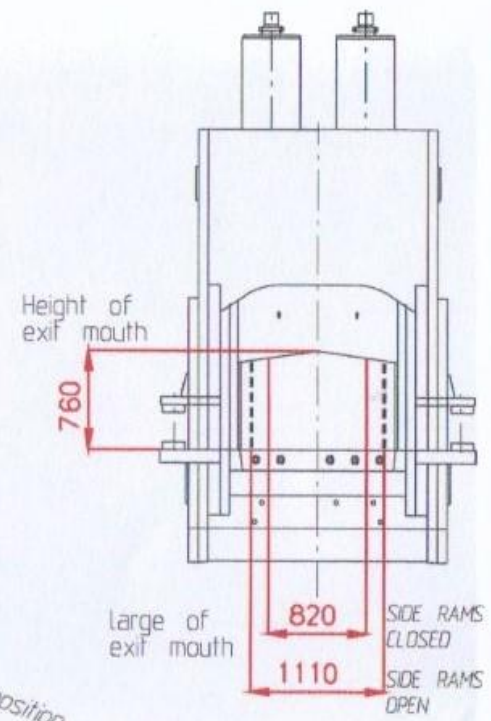
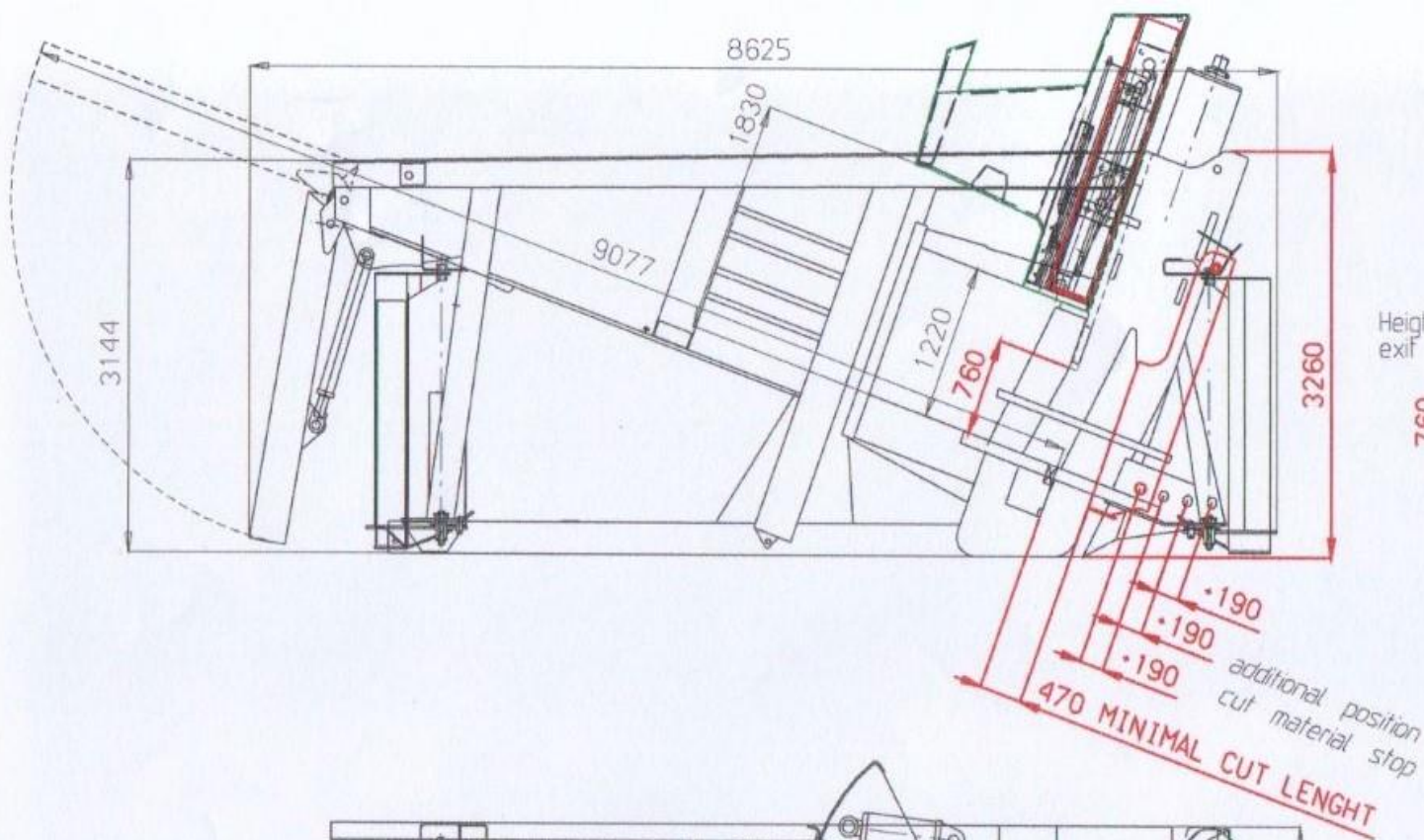
# VERTICAL INCLINED SHEARS

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## **Basic Features and Benefits:**

- ❖ Adjustable cutting lengths by incremental steps.
- ❖ Average output material density: 0.6-0.8 ton/m<sup>3</sup>
- ❖ Ratio of mixed scrap & cars volume reduction is respectively 70% & 75%
- ❖ On site installation without the need of ground foundation and civil works.
- ❖ Fully automatic, remote controlled , automatic greasing, continuous loading.
- ❖ Bosch Rexroth hydraulic and Siemens PLC (with available remote connection with the factory).
- ❖ High shear force makes it possible to process quickly & efficiently HMS/Bulky oversized scrap.
- ❖ Diesel/electric/combo motor driven.



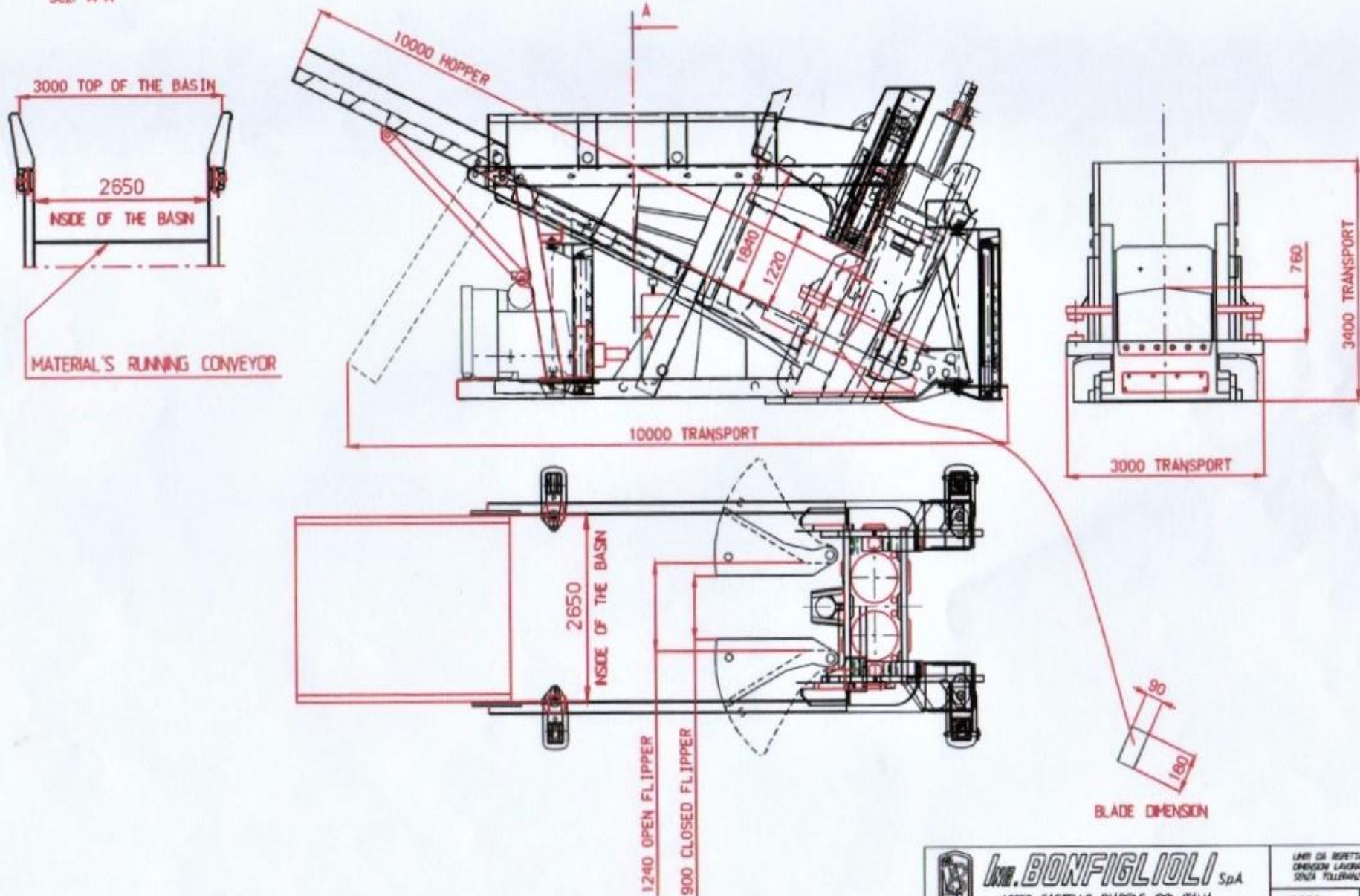


L. BONFIGLIOLI SpA		LIMITI DA RISPETTARE PER DIMENSIONI LAVORATE SENZA TOLLERANZA INDICATA	
40050 CASTELLO D'ARLE (BO) ITALIA		DIMENSIONI	TOLLERANZE
Denominazione <b>SHEAR SQUALO 2000</b>	Scala	di	1 a 10
		sopra	10 a 20
		sopra	20 a 30
		sopra	30 a 50
		sopra	50 a 100
Data	Codice	sopra	100 a 200
		sopra	200 a 300
		sopra	300 a 500
		sopra	500 a 1000
		sopra	1000 a 2000

Il presente disegno e le relative note costituiscono la base di lavoro per la costruzione della macchina. L'azienda si riserva il diritto di apportare modifiche senza preavviso.



Sez. A-A



 <b>Lm. BONFIGLIOLI</b> SpA 40050 CASTELLO D'ARGILE (BO) ITALIA		UNITÀ DA RISPETTARE PER DIMENSIONI LAVORATE SENZA TOLLERANZA INDICATA		
Denominazione  <b>CESAIA 3000</b>	Scala	DIMENSIONI		TOLLERANZA
		da 1 a 80	± 0,10	
	Data  <b>28.02.12</b>	da 80 a 120	± 0,20	
		da 120 a 200	± 0,30	
		da 200 a 500	± 0,50	
da 500 a 1000		± 0,70		
Il presente disegno e le informazioni contenute sono di proprietà della <b>BONFIGLIOLI SpA</b> . La riproduzione o la diffusione sono vietate a pena di legge.		Codice  da 1000 a 100 ± 1,00		



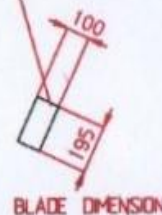
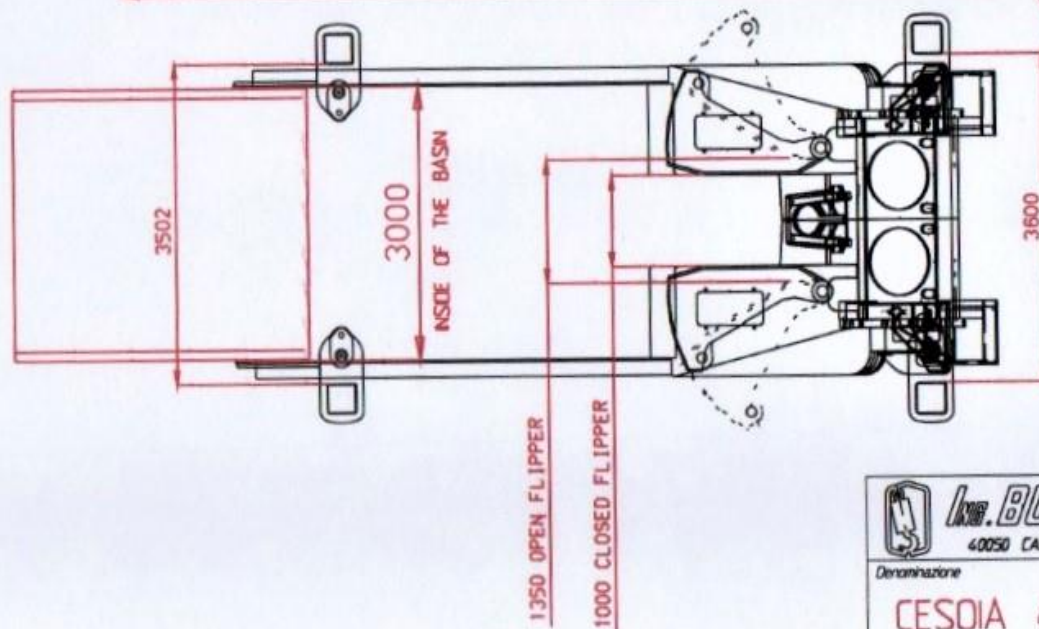
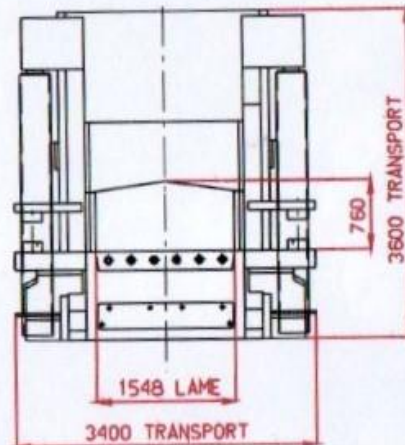
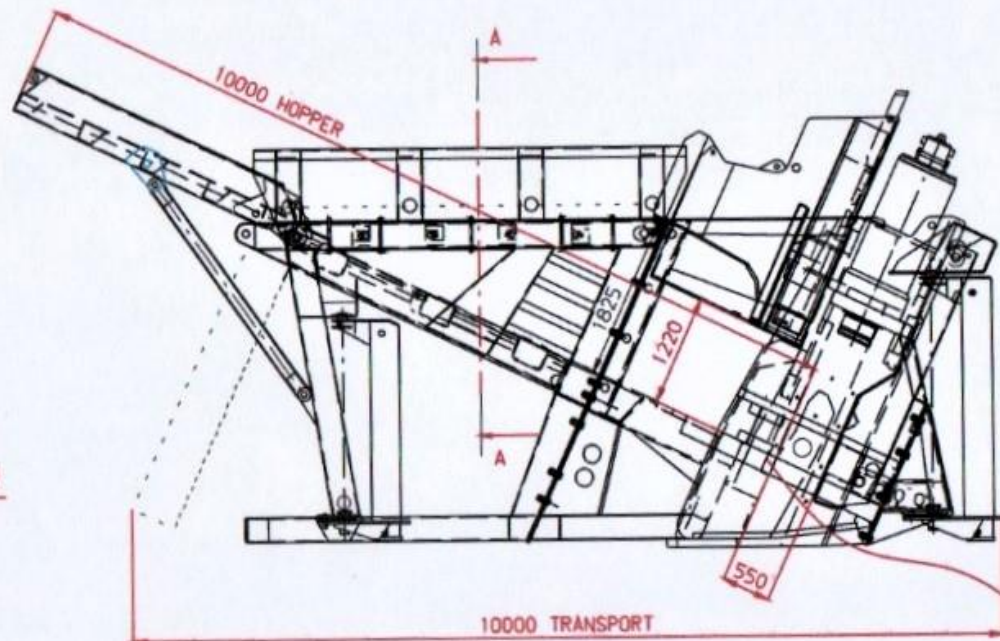
Sez. A-A

3350 TOP OF THE BASIN

3000

INSIDE OF THE BASIN

MATERIAL'S RUNNING CONVEYOR



**L. BONFIGLIOLI** SpA

40050 CASTELLO D'ARCOLE 1801 ITALIA

Denominazione

**CESIOA 4000**

Scale

Data **210317**

Codice

LIMITI DA RISPETTARE PER  
DIMENSIONI LAVORATE  
SENZA TOLLERANZA INDICATA

DIMENSIONI TOLLERANZA

DIMENSIONI	TOLLERANZA
da 1 a 10	+ 0,1
super 10 a 100	+ 0,2
super 100 a 300	+ 0,3
super 300 a 500	+ 0,4
super 500 a 1000	+ 0,5
super 1000	+ 1,0

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sono di proprietà della BONFIGLIOLI SpA.  
La riproduzione e la diffusione sono vietate a pena di legge.

# HAMMERMILL COMPACT SHREDDERS

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# HAMMERMILL SHREDDERS

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## Basic Features and Benefits:

- ❖ Different models with different capacity (\*)

DRAKE 10 with an average productivity of 10-13 ton/hour

DRAKE 12 with average output productivity 15-18 ton/hour

DRAKE 16 with average output productivity 22-25 ton/hour

DRAKE 16 HP with average output productivity 45-50 ton/hour

(\*) under normal working conditions, depending on the type, quality & quantity of material and ability of the operator

- ❖ Input material: pre-sheared or entire cars complete with engines, & pre-sheared or entire bales (depending on the models), white goods, light mixed scrap, aluminium
- ❖ Output material: pure proller (E 40- ISRI 210- ISRI 211) ready for the mill
- ❖ Average output material density:  $0.9-1.3 \text{ ton/m}^3$  (depending on the input material and grid size)

# HAMMERMILL SHREDDERS

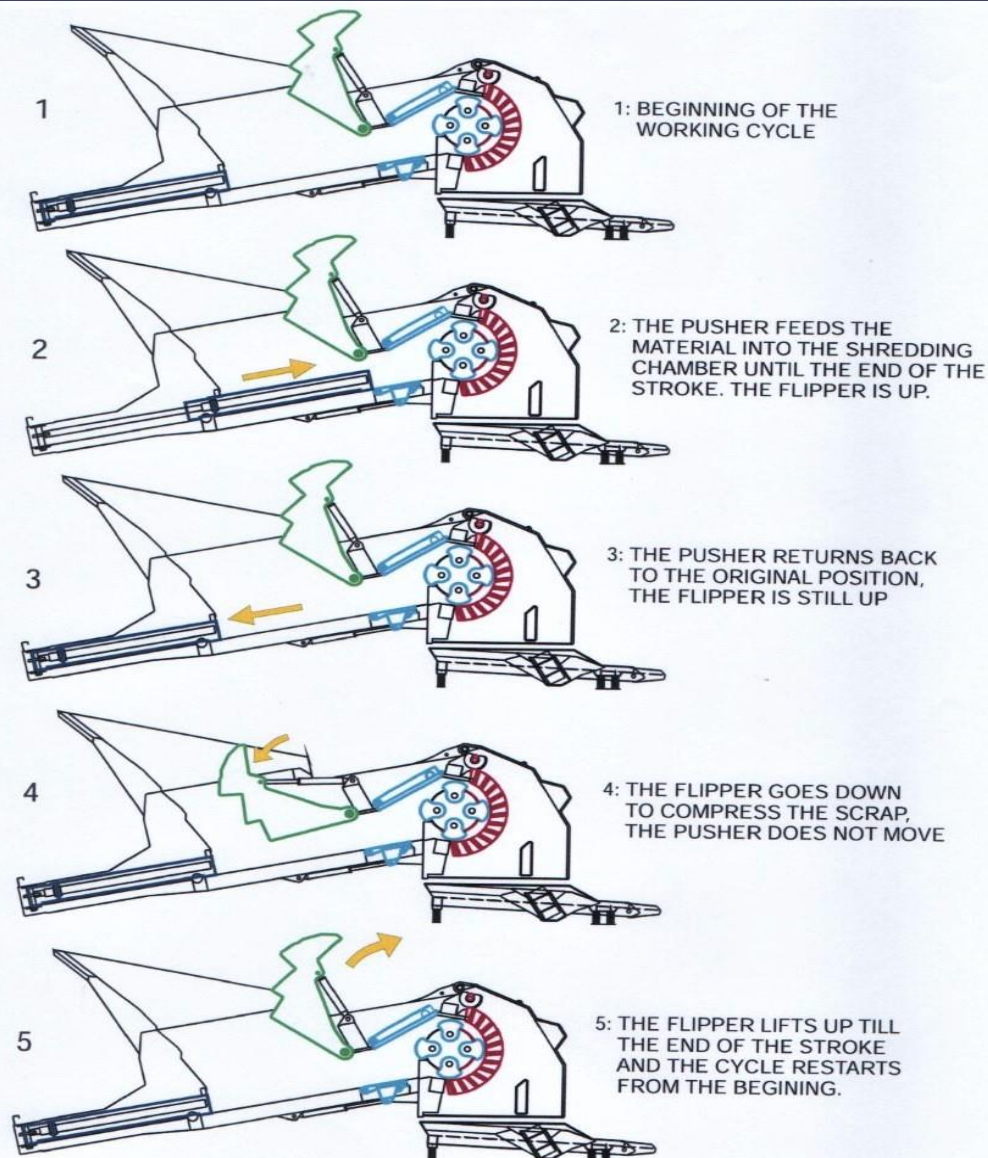
36

## Basic Features and Benefits:

- ❖ Ratio of mixed scrap & cars volume reduction is respectively 80% & 85%
- ❖ Standard permanent magnet system for ferrous metal and eddy current sorting system for non-ferrous metal and fluff
- ❖ Patented system, fully automatic cycle and tele-remote controlled, PLC system
- ❖ On site installation without the need of fixing the shredder to the ground concrete foundation
- ❖ Easy maintenance & low operating cost

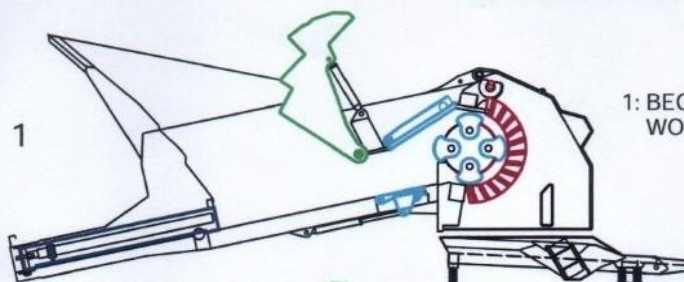
# Drake 10-12-16 working cycle

37

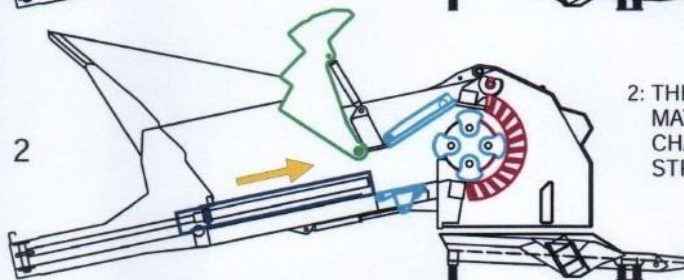


# Drake 16 HP working cycle

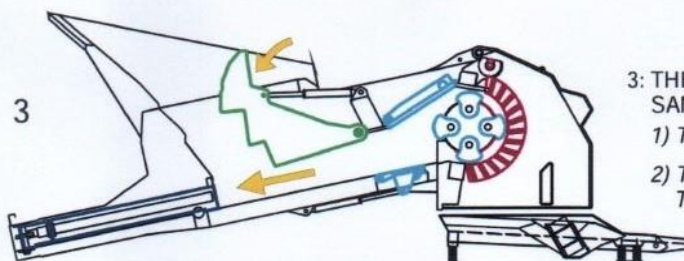
38



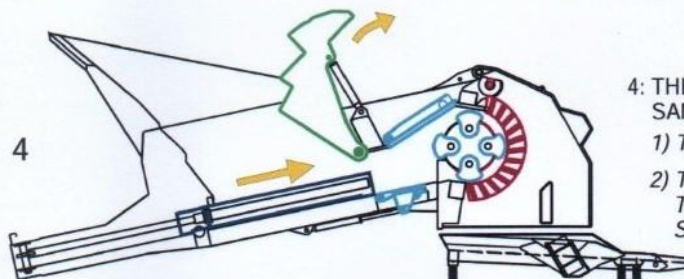
1: BEGINNING OF THE WORKING CYCLE



2: THE PUSHER FEEDS THE MATERIAL INTO THE SHREDDING CHAMBER UNTIL THE END OF THE STROKE. THE FLIPPER IS UP.



3: THERE ARE 2 MOVEMENTS AT THE SAME TIME:  
1) THE FLIPPER GOES DOWN  
2) THE PUSHER MOVES BACK TO THE ORIGINAL POSITION



4: THERE ARE 2 MOVEMENTS AT THE SAME TIME:  
1) THE FLIPPER GOES UP  
2) THE PUSHER STARTS FEEDING THE MATERIAL INTO THE SHREDDING CHAMBER

# WHY ING. BONFIGLIOLI EQUIPMENT?

# Equipment Strenght

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- ❖ Focused and dedicated to the scrap, steel mills and recycling industries
- ❖ Ing. Bonfiglioli machines are designed and built specifically for the baling, shearing and shredding of the metal scrap.
- ❖ Fast, efficient and profitable way to process the metal scrap
- ❖ Strengths of Ing. Bonfiglioli equipment: transportable, versatile, high efficiency and high productivity, strong, easy to operate, low operating and maintenance costs, minimum civil works required
- ❖ Main advantages of using Ing. Bonfiglioli equipment: reduction of the scrap transportation costs, increase of the scrap market value after processing, supply clean scrap ready for the mill.

## Equipment Strenght

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- ❖ Ing Bonfiglioli design and build machines with high performance, but more importantly without over engineering and complicated electronics.
- ❖ Ing. Bonfiglioli equipment are built with special steel Strenx and Hardox and are fitted with the most reliable supplier's parts & components (Deutz, Caterpillar, Bosch Rexroth, Siemens, Parker, Donaldson etc.)
- ❖ Ing. Bonfiglioli equipment are a good VALUE "high performance and quality at a reasonable price". Investment cost is half than the machines supplied by the competition.
- ❖ Quick return of the investment.

## Company Points of Strenght



- Fully Integrated State of the art manufacturing facility.
- Unique equipment design and portability.
- 74 International Copyrighted Patents.
- Assembling and Testing of any unit manufactured prior to shipment.
- R&D technical upgrade of the products every 4 units produced.
- After Sales Service worldwide.

***Thank you for your  
attention***