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The COPEX mobile hydraulic mobile shear presses type CVM630t have been designed to compact and shear all recovery scraps and aluminium profiles:

- Long profile section and pipes (up to 5600 mm),
- Welded structures,
- Various equipments as tubes, tanks, car shells etc...

These functions are realised by means of a large compression box and high performance shear.

The following principles have been retained for this type of machine:

- Mobility,
- Complete independence for power,
- Easy to control,
- Very simple routine maintenance.

All these advantages make the COPEX CVM shear press the ideal equipment when it goes about treating quickly and under the best operating conditions, scraps located on various scrap sites, or when it goes about having total mobility inside a scrap yard.

## 2. TECHNICAL DESCRIPTION OF OUR PROPOSAL

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### 2.1. DIRECTIONS FOR USE

The complete shear press is monitored by means of a SIEMENS programmable logic controller (PLC).

In standard configuration, the machine will be delivered with radio remote control.

Shearing operations are made automatically at the cutting length set by the operator.

#### **Example of a cycle timing:**

T1. The wings are opened: the compression box gets loaded with products.

T2. By means of the electrical manipulators, the operator closes the wings to compact the products to the dimensions of the channel (750x565).

T3. The operator starts the automatic cycle. The cutting length can be selected from the cabinet for all the campaign or just before this operation.

T4. Shearing operations are initiated. They include: the movement ahead of the longitudinal pusher, the moving down of the side-press and of the shear until the products loaded in the box have been treated.

T5. At the end of the shearing cycle, the wings are automatically opened and the machine is ready for a new operation.

## 2.2. CHARACTERISTICS

### 2.2.1. GENERAL DIMENSIONS

- Overall length	15 348 mm
- Overall width	2 500 mm
- Overall height	4 100 mm
- Total weight	<b>61 100 kg</b>



### 2.2.2. COMPRESSION BOX

- Length	5 600 mm
- Central platform width	750 mm
- Width lids opened	2 450 mm

The box is a very strong welded structure. The central platform is covered with wearing sheet (HARDOX) to protect against abrasion and wear.

### 2.2.3. WINGS

- First wing force	2 x 120 t
- Second wing force	2 x 120 t

Wings are made of very high tensile steel (WELDOX 700)

### 2.2.4. LONGITUDINAL PUSHER

- Section	750 x 565 mm
- Stroke of the ram	6 055 mm
- Force	120 t

### 2.2.5. SHEAR

- Cutting width	800 mm
- Cutting angle	11°
- Shearing force	630 t (2 x 315 t)

### 2.2.6. HOLD DOWN

- Width	800 mm
- Length	400 mm
- Force	120 t



Note : The hold down fitted in front of the shear has a double function :

- Give a vertical compression of the sheared products,
- Hold the products on shear base during shearing.

### 2.2.7. EQUIPMENT FOR ROAD DISPLACEMENT

The complete equipment include: Four axles of which 2 self turning axles.

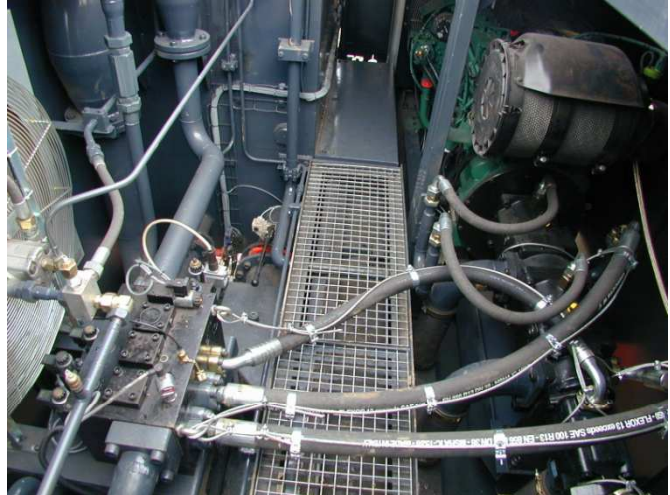
### 2.2.8. HYDRAULIC UNIT

Diesel Engine           VOLVO PENTA

Type   6 cylinders turbo charged  
Water cooled engine

Power                   426 hp (315 kW)

Fuel tank capacity   500 l



NB: The engine is equipped for working with cold weather.

#### High pressure hydraulic circuit

\* Two variable pistons pumps

- Delivery                   450 l/min
- Maxi operating pressure   315 bars

#### Low pressure hydraulic circuit

\* One pump with fixed delivery

- Delivery                   330 l/min
- Maxi operating pressure   120 bars

#### Cooling and filtering circuit

- Delivery                   272 l/min
- Filtration                 10 μ

#### Hydraulic tank

- Capacity                 2300 l
- Oil type                 ISO. L. HV

The tank is fitted with all the necessary safety devices for oil level and temperature, clogging indicator for the filter and air breather.

### 2.2.9. ELECTRIC UNIT – RADIO REMOTE CONTROL & REMOTE MAINTENANCE

The electric unit includes:

The electrical cabinet waterproof designed in which all the electrical components are installed (in standard from **SIEMENS** supply).

These components are :

- . The PLC type SIEMENS,
- . The safety fuses,
- . The relays (overheating, oil level, clogging indicator, pump feeding and emergency stops),
- . The connection terminal blocks with their number according to the electric diagram.

The electrical circuit is fed with a 24V constant current provided by the diesel engine.

### Radio Remote Control

This equipment allows to control the shear from a mobile crane moving into the site. The maximum reach is about 80 m.

Control on the radio remote control including:

- The general «on-off» switch,
- The emergency stop,
- The control levers,
- The cutting length adjust control,
- The «auto-manual» switch,
- The indicator lights.



The engine control desk loan of electrical cabinet including:

- The engine starter control,
- The switch lights, tachymeter and hourmeter.

### Telemaintenance (remote service)

The PLC is connected by means of a simple phone connection to our programming terminal with following functions when the machine is running:

- Check and modify the inputs- outputs
- Display a GRAFCET cycle
- Modify the cycle parameters



## 2.3. PRODUCTION DATA

- Cutting speed per minute **4 to 6 cuts**
- Hourly production **10 to 15 t** (depending on material quality)

## 2.4. PAINTING

- 1 coat anti rust
- 1 top coat with COPEX colours (grey as per RAL7016 and red for mobile parts as per RAL 3020).



## 3. OPTIONAL

### 3.1. FIRE PROTECTION

The fire extinguisher is composed by two tanks of water and additive, each one equipped with an automatic tripping of the feed notion.

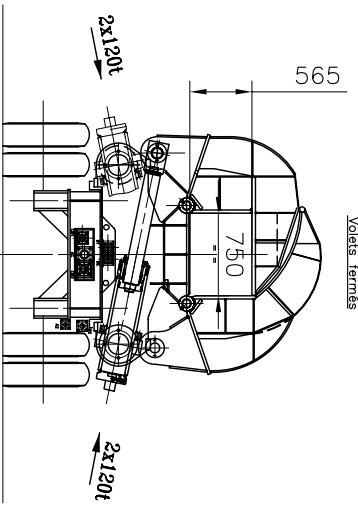
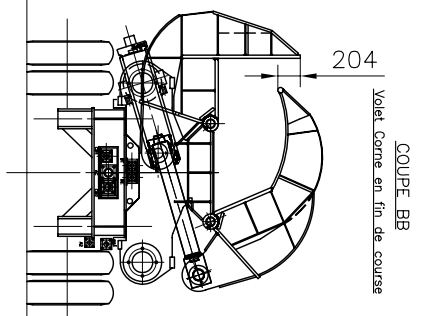
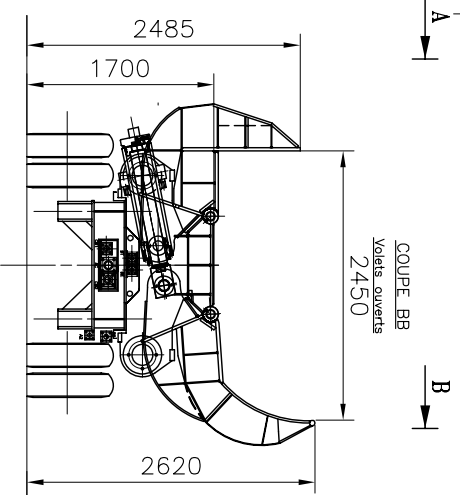
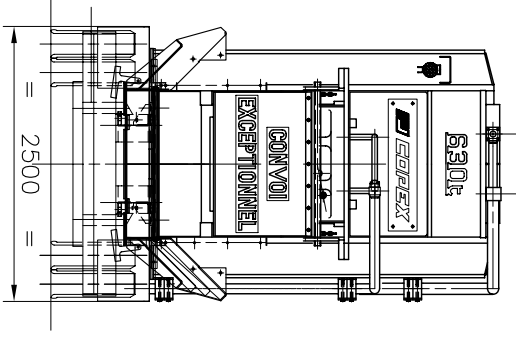
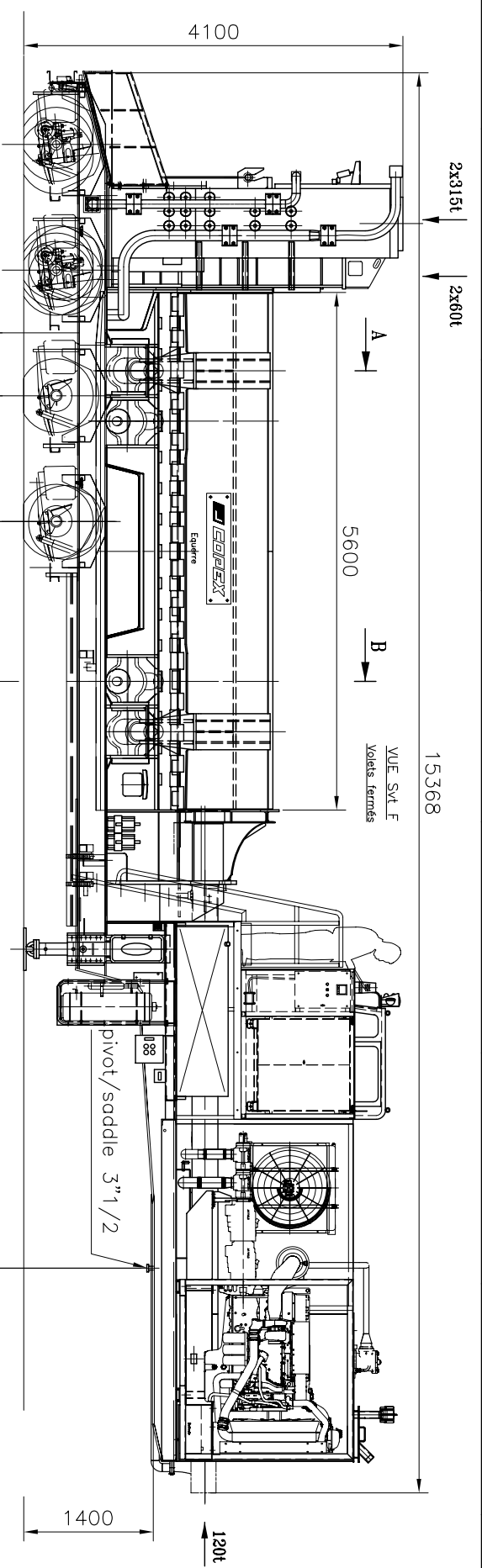
The manual release permits a quick start-up of the extinguisher by the shear-operator.

The product is sprayed out by several diffusers disposed all around the machine.

### 3.2. REST SUPPORT

To work with the machine without a lorry.





définition de la remorque /	definition of the lorry
poids total	charge sur les essieux
total weight	load on the 4 axles
61100 kg	41200 kg
	charge sur le pivot
	load on the saddle
	19900 kg

c	05/03/08	Mise à jour		DG
d	06/02/04	Plan revu suite au nouveau groupe hydraulique		G.C
indice	Date	Objet de la modification		Visa
MATERIE:		TRAITEMENT:		
Ce plan est utilisé dans les ensembles N° :				
DES:	1er/18/2/98	Echelle 1/50	Usage: No	
Verif:			Tol.Gén.: J412	

Dernière édition  
03/03/08

CVM 630 T / 800  
coisse (box) 5600

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CAUDAN

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