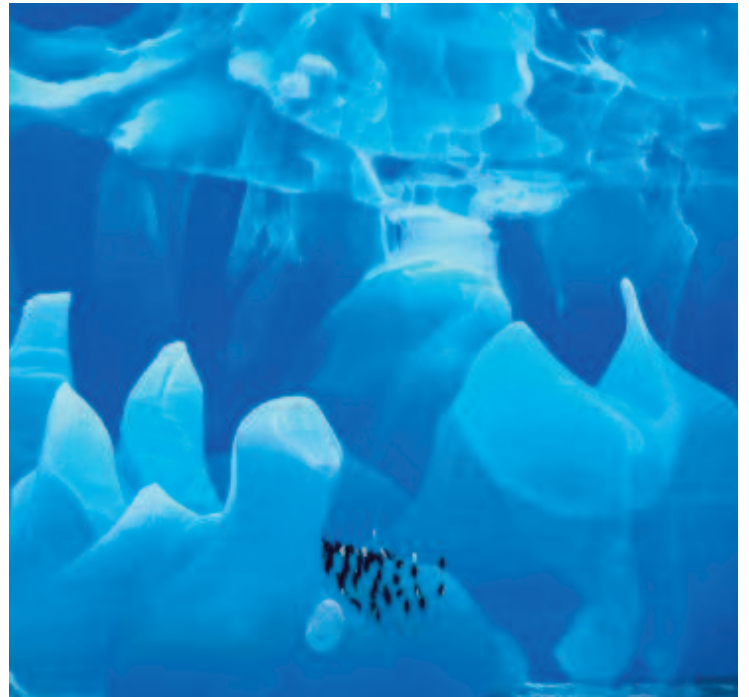


Professionnal Kitchens

Sustainable Development Approach

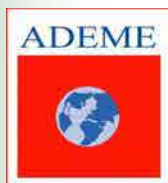


For professionals

**TOURNUS
EQUIPEMENT**

"Carbon Footprint" analysis

In February 2009, Tournus Equipement initiated a "Carbon Footprint" analysis procedure.



The **ADEME** (agency for the environment and energy management) designed this procedure which enables any company to measure its **Greenhouse Gas (GHG)** emissions and consequently reduce them.



The "Carbon Footprint" analysis was implemented in partnership with the FCBA (Forest, Cellulose, Construction Wood and Furniture) Technological Institute.

Methodology:

1- Recording:

Assessment of CO₂ emissions for all the company's activities: raw materials, transport (distances, weight, volume, etc...), internal energy consumption, use at end customer, etc.



2- Action plan:

Definition of areas of improvement for the major sectors: substitution of materials, reduction in consumption, search for energy efficiency, etc
Drawing up of budgets, implementation deadlines and managers.

For Tournus Equipement:

Recording spanning 4 months.

The following was analysed:

25,000 customer orders

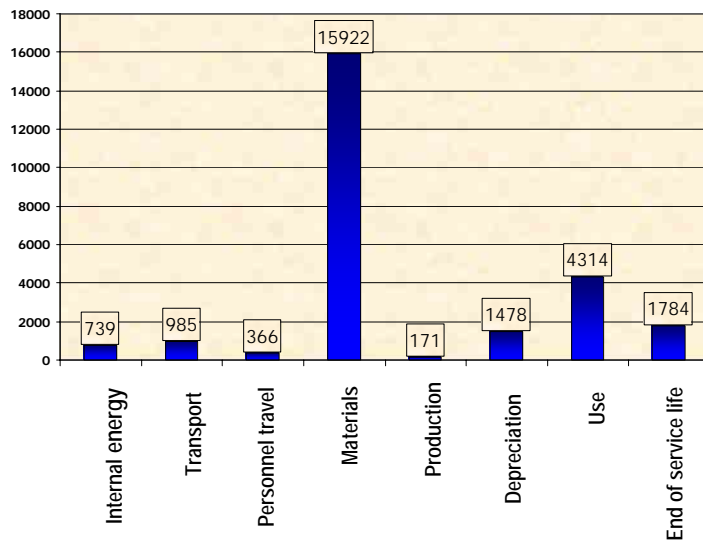
12,000 supplier orders

5,000 raw material references

To summarise: the Carbon Footprint analysis demonstrates a reliable and measurable industrial undertaking. A quality-related assessment criterion in terms of calls for tenders.

The Results

Emissions per TOURNUS EQUIPEMENT item in tonnes of CO2 equivalent)



26,000 tonnes of CO2 equivalent
 60% from raw materials
 17% from the use of our products in customers premises
 (power consumption)

Action plan: priorities

Axes	Actions	Reduction targets (tonnes of CO2)
Internal Energy	Staff awareness (paper recycling, car sharing, turning off lights...)	-2
	Improvement of infrastructures (solar panels, solar water heater, IT machinery...)	-12
	Machinery consumption optimization	-4
Raw materials	Implementation of 441 stainless steel	-650
	Reduction of scraps and manufacturing waste	-75
	Implementation of eco-design projects	-1600
Consumption	User awareness of the good practices in the use of our powered units (self-service range, heating cupboards), etc)	-250

2010 target

Compared to 2007: reduce our emissions by 2,600 tonnes of CO2 equivalent, that is 10% of total emissions.

441 Stainless Steel

60% of our Greenhouse Gas (GHG) emissions come from the raw materials used in production.

Since 2007, Tournus Equipement has incorporated AISI 441 grade stainless steel into its production replacing the AISI 304 ("18-10") grade previously used. Similar to the 304 for our products (units, trolleys and cladding), **AISI 441 stainless steel emits less Greenhouse Gases during production thanks to the absence of nickel.**

Stainless steel is fully recyclable: 80% of the contents of the steels we buy come from recycling and only 20% from extraction. **GHG emissions from stainless steels sold in Europe (80% recycling /20% extraction):**

1 Kg AISI 304 = 2.9 kg of CO2 equivalent

1 Kg AISI 441 = 2.5 Kg of CO2 equivalent

Source: Arcelor and Cambridge University

i.e. an improvement of 14%

In 2008 alone, Tournus Equipement therefore avoided emitting **650 Tonnes of CO2, i.e. the equivalent of 300,000 litres of petrol.**

To summarise: a set of equipment made of AISI 441 can be recovered in a Sustainable Development-oriented project without losing in performance or creating additional costs.

Example of a clearing trolley



304 = 75 kg of CO2 eq.

441 = 65 kg of CO2 eq.



10 kg of CO2 saved

AISI 441 Stainless Steel

Source: University of Cambridge.
Extraction stainless steel.



CES Selector 4.5 Wrought austenitic stainless steel, AISI 304L

General

Designation

S-Steel: AISI 304L

Density	7800	- 8010	kg/m ³
Price	2.836	- 4.254	EUR/kg
CO2 creation	* 4.27	- 4.72	kg/kg
Production Energy	* 67.9	- 75.1	MJ/kg
Recycle Fraction	* 0.65	- 0.75	

For a mean density of 7,800kg/m³ in AISI 304 delivered in France: every kg of 304 generates 4.27kg of CO² equivalent.



CES Selector 4.5 Wrought ferritic stainless steel, AISI 436, annealed

Grade equivalent to AISI 441

General

Designation

S-Steel: AISI 436, annealed

Density	7700	- 7900	kg/m ³
Price	* 7.09	- 3.284	EUR/kg
CO2 creation	* 3.57	- 3.95	kg/kg
Production Energy	* 56.8	- 62.8	MJ/kg
Recycle Fraction	* 0.65	- 0.75	

For a mean density of 7,800kg/m³ in AISI 441 delivered in France: every kg of 441 generates $(7,800/7,700) * 3.57 = 3.61$ kg of CO² equivalent.

Tradenames

ALLEGHENY TYPE 434, Allegheny Ludlum Steel (USA); UGINOX F 17 M, Ugine SA (FRANCE);

Composition

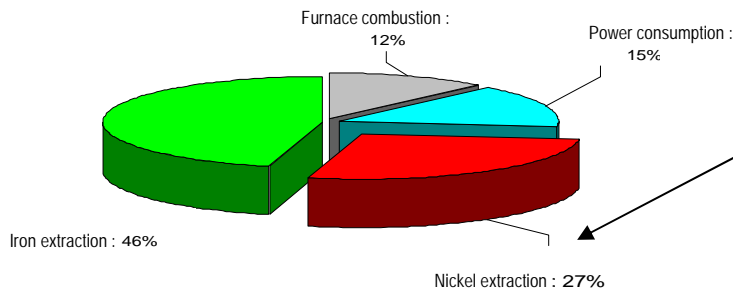
Composition (Summary)

Fe/<.12C/16-18Cr/.75-1.25Mo/1Mn/<1Si + Nb,Ta,P,S traces

Base	Fe (Iron)		
C (Carbon)	0	- 0.12	%
Cr (Chromium)	16	- 18	%
Fe (Iron)	78.63	- 82.25	%
Mn (Manganese)	1		%
Mo (Molybdenum)	0.75	- 1.25	%

Breakdown of GHG emissions for AISI 304 stainless steel

Source: Arcelor Mittal



Nickel only represents 8% of the weight of AISI304 stainless steel yet emits 27% of the total greenhouse gases

Energy consumption by users

Carbon Footprint analyses will be compulsory for companies of more than 500 employees (Grenelle Environment Round Table).

Energy prices are poised to increase substantially in the coming years.

Local authorities are already reflecting on how to reduce their consumption.

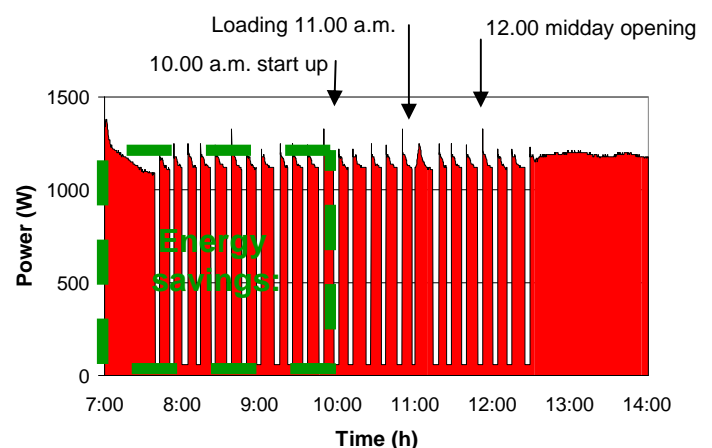
Tournus Equipement is henceforth offering its customers the means to improve their energy performance.



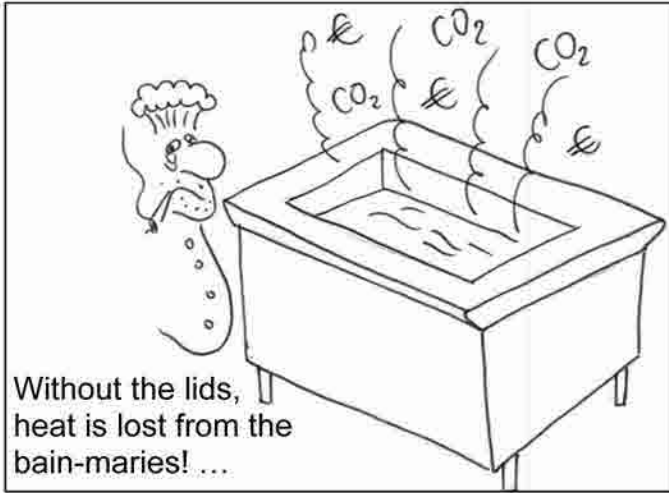
Our self-service lines consume power during operation. Good practices can nonetheless considerably reduce this consumption which represents the 2nd ranked generator of GHG for Tournus Equipement.

Our clear and user-friendly guidelines are available to kitchen-based users, designed to help them in this approach.

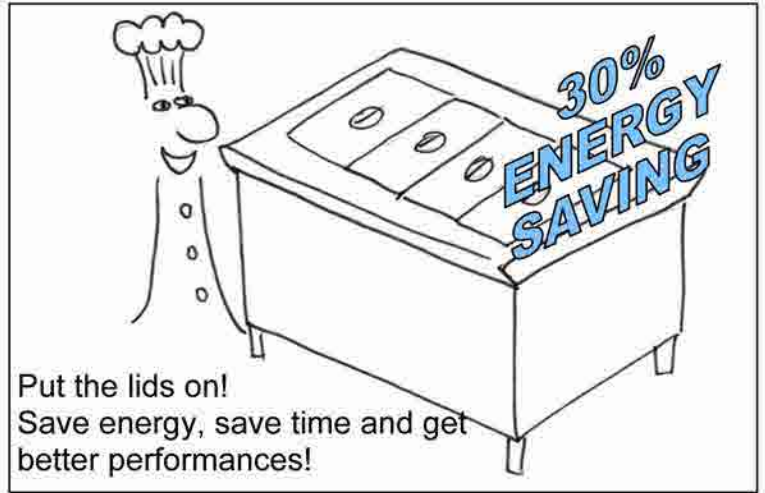
The application of good practices enables users to cut their electricity bill by 30% without jeopardizing performance.



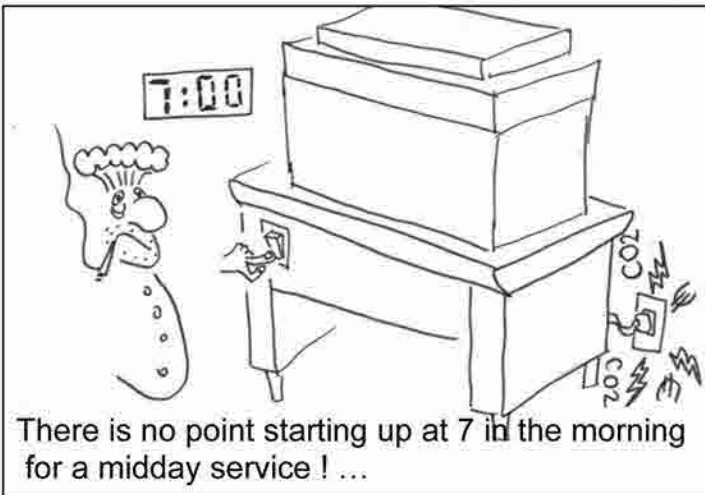
To summarise: the good practices guidelines are systematically affixed to our self-service units. Always provide for training of the user personnel. The energy savings will be great and the operating personnel's work enhanced.



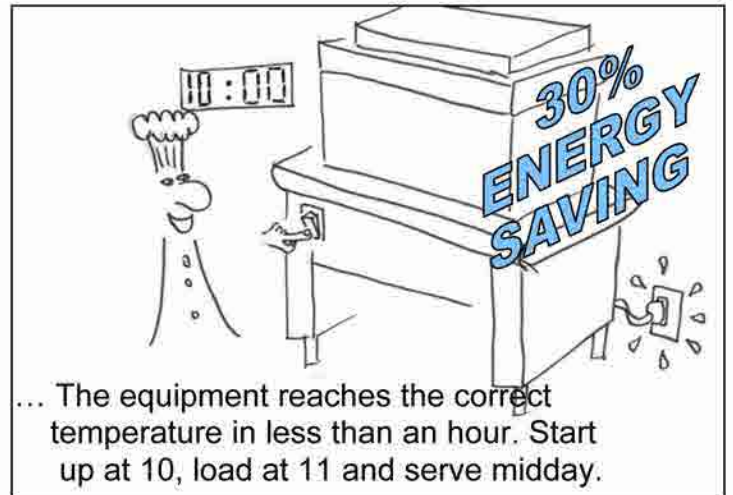
Without the lids,
heat is lost from the
bain-maries! ...



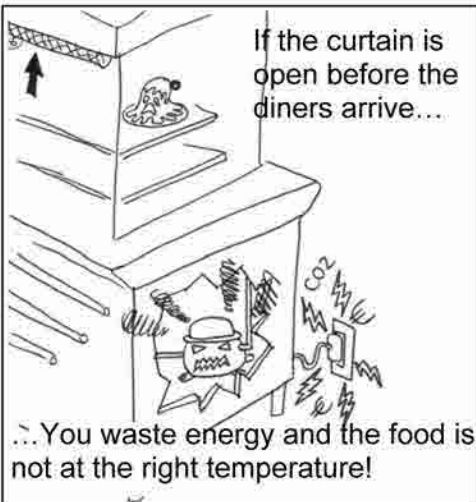
Put the lids on!
Save energy, save time and get
better performances!



There is no point starting up at 7 in the morning
for a midday service ! ...

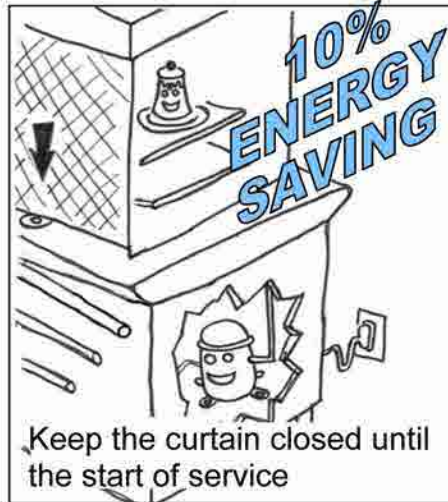


... The equipment reaches the correct
temperature in less than an hour. Start
up at 10, load at 11 and serve midday.

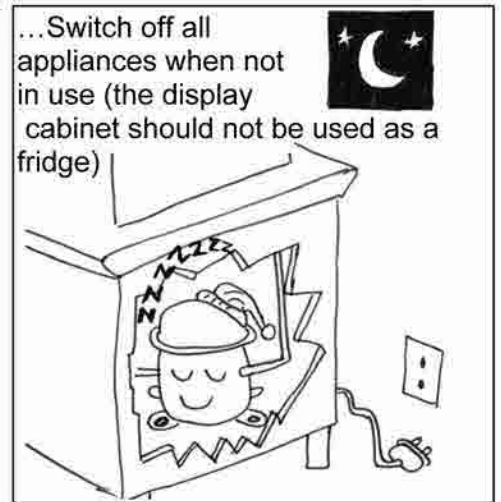


If the curtain is
open before the
diners arrive...

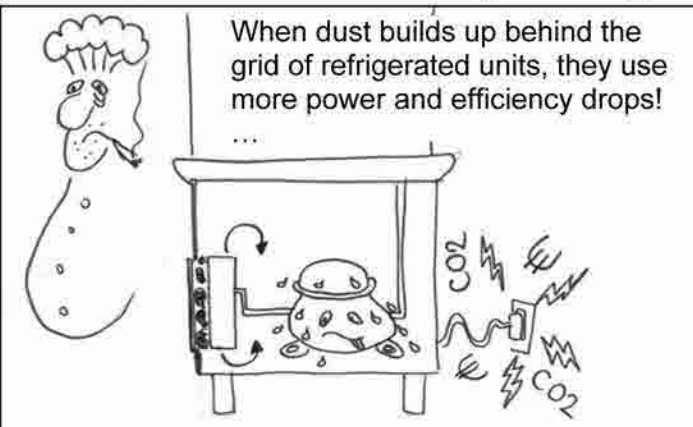
... You waste energy and the food is
not at the right temperature!



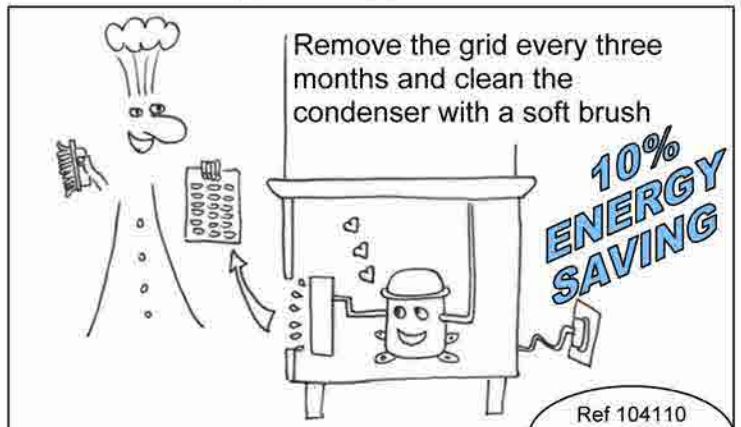
Keep the curtain closed until
the start of service



... Switch off all
appliances when not
in use (the display
cabinet should not be used as a
fridge)



When dust builds up behind the
grid of refrigerated units, they use
more power and efficiency drops!



Remove the grid every three
months and clean the
condenser with a soft brush

WEEE recycling



At the end of service life, **all equipment containing waste electrical and electronic equipment ("WEEE⁽¹⁾") marketed from August 2005 must be recovered through a qualified channel (European Directive N° 75 442).**

The WEEE must therefore be recycled.

(1) WEEE: Waste Electrical and Electronic Equipment



Tournus Equipement has joined forces with the channel organised by SYNEG (French manufacturers' association of catering equipment), RECY'STEM PRO approved.



When a set of Tournus Equipement electrical equipment has come to the end of its service life, the user customer contacts RECY'STEM PRO which specifies where the product can be disposed of.

All companies marketing equipment containing WEEE in France must register the volumes marketed in the ADEME (agency for the environment and energy management) file. This is a legal obligation.

According to the agreement defined with RECY'STEM PRO, Tournus Equipement regains ownership of the waste therefore waiving the installer and user of the recycling requirements. The reprocessing and recovery costs of the waste are at Tournus Equipement's expense. Only the costs for dismantling and transport to the reprocessing site are at the customer's charge.

To summarise: by asking for a WEEE device guarantee certificate, this will protect the user customer from future environmental requirements, in keeping with the law.



Réf. 09.02.111



ATTESTATION D'ADHESION AU DISPOSITIF DEEE

-2009-

Je soussigné **Thierry ALLIX**, Secrétaire Général du SYNEG, certifie que la Société

TOURNUS EQUIPEMENT

25, avenue Jean Moulin

B.P. 59

71700 TOURNUS

membre du SYNEG (Syndicat National de l'Équipement des Grandes Cuisines), adhère au dispositif de collecte et de traitement de ses équipements électriques et électroniques en fin de vie, selon les termes de l'accord-cadre élaboré par le SYNEG, signé avec RECY'STEM-PRO le 12 Juillet 2007 et reconduit par Avenant du 11 Décembre 2008.

Cette société TOURNUS Equipement s'est engagée à respecter les termes du décret 2005-829 du 20 Juillet 2005 relatif à l'élimination des déchets issus de ses équipements électriques et électroniques. Ce décret transpose la directive 2002/96/CE du Parlement européen et du Conseil du 27 Janvier 2003 relative aux déchets d'équipements électriques et électroniques.

Par ailleurs, cette Société TOURNUS Equipement est bien inscrite au Registre des producteurs tenu par l'ADEME, sous le n° SIRET 383 567104 00013 avec le statut « *Individuel Producteur* ».

La présente attestation est délivrée pour valoir ce que de droit,

Fait à Courbevoie, le 4 Février 2009


Thierry ALLIX
Secrétaire Général

Membre
de
l'ERCEN

Syndicat National de l'Équipement des Grandes Cuisines
39/41 rue Louis Blanc - 92400 Courbevoie - F-92038 PARIS LA DÉFENSE CEDEX
Tél. : 33 (0)1 47 17 63 62 - Fax : 33 (0)1 47 17 68 69
E-mail : syneg@syneg.org - Internet : www.syneg.org
SIRET : 383 631 120 00022 - APE 911A



"Environment" data sheets

Tournus Equipment has "Environment" data sheets on all its products available to its customers.

Documents available: www.tournus.com / partner space

These sheets can be used to estimate the environmental impact of the equipment delivered within the scope of a global project. They can be used to back up a call for tender when selecting the product.

They are often requested for a project incorporating a HEQ (High Environmental Quality) procedure

They specify:

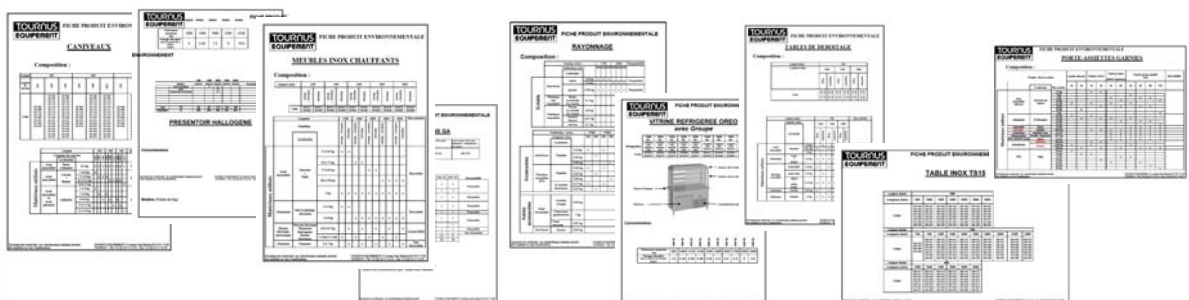
The materials used as well as the respected weight

Water consumption

Energy consumption

Site waste

Portion of recyclability of each part of equipment



To summarise: The "Environment" sheets can be integrated into the D.O.E. (List of completed projected).

They can be used to define a minimum recycling rate of the equipment implemented.

"Environment" data sheets

Example:

TOURNUS EQUIPEMENT		ENVIRONMENTAL PRODUCT SHEET							
CONSTANT LEVEL PLATE DISPENSERS									
			Heated trolleys			Neutral trolleys		Universal trolleys	
			1 stack of plates with lid	2 stacks of plates with lid	2 stacks of plates with lid for plates	1 stack of plates	2 stacks of plates	Neutral	Heated with lid
Codes:			808 171	808 172	808 177	808 181	808 182	808 201	808 205

Composition:

		Location		Codes								Recyclability	
				808 171	808 172	808 177	808 181	808 182	808 201	808 205			
Materials used	Stainless steel	Structure	18.5 kg	x			x				Recyclable		
			33kg		x	x		x					
			48 kg						x	x			
	Aluminium	Clamping lug for sensor	1 kg	x	x	x	x	x	x	x	Recyclable		
				Bend base bumper	x	x	x	x	x	x		x	
	Plastic	Handle endpiece	0.55 kg	x	x	x	x	x	x	x	Recyclable		
				Guide rollers	x	x	x	x	x	x		x	
	Fibreglass	insulating material	0.75 kg	x	x	x	x	x	x	x	Non recyclable		
	Plastic	Wheels	1.6 kg	x	x	x	x	x	x	x	Non recyclable		
	Electrical, electronic, waste	Wire bundle trolley	Resistance: shielded	0.75 kg	x	x	x					WEEE circuit	
					Thermostat								
					Switch								
Polycarbonate	Lid	0.75 kg	x							Recyclable			
		1.5 kg		x	x								
Site waste	Polyethylene	Plastic film	0.18 kg	x	x	x	x	x	x	x	Non Recyclable		
	Cardboard	Bracket	0.75 kg	x	x	x	x	x	x	x	Recyclable		
	Wood	Pallet	5 kg	x	x	x	x	x	x	x	Recyclable		
Total weight:				30 kg	45 kg	45 kg	28 kg	43 kg	57 kg	59 kg			
% of recyclable weight:				97.5	95	94	91	94	96	96			
% of WEEE:				2.5%	1.6%	1.6%	0%	0%	0%	1.2%			

Electrical consumption:

	1 stack trolley (with thermostat adjusted to 90°C)	2 stack trolley (with thermostat adjusted to 90°C)
Average power rating (kW)	0.44	1.02
Energy dissipated for a 2-hour cycle (kWh)	0.88	2.04

This document is not binding. The specifications given are subject to change with a view to improvement.

TOURNUS EQUIPEMENT-25 avenue Jean Moulin-B.P.59 F-71700 TOURNUS - Phone +33 (0)3 85 27 42 42 - Fax +33 (0)3 85 27 42 99

TOURNUS EQUIPEMENT ► 100 % ENGAGEMENT

