## **SUMMARY**













## TECHNICAL FURNITURE

— Standard benches — Computer workbenches —





Multi-purpose & Electrotechnical benches





Wiring benches -——— Training housing units & Kits —





Storage units







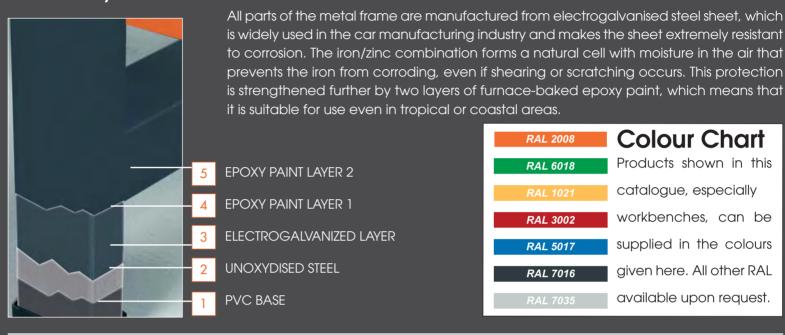




# EQUILIBRIUM RANGE

New generation of technical furniture

## Quality of steel & finishes





## Quality of stratified top









RESISTANT





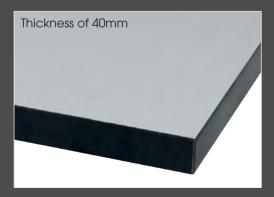
TO CLEAN

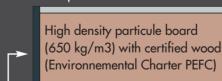
High quality stratified layer. High heat resistance (up to 300°C

without modification in shape, colour). High resistance to scratches



Uniformly





PVC sides - Heat gluing

Gluing and power press

> Stratified layer of stabilization (avoid bending & torsion, whatever is the climate)

### Power sockets available for technical furniture



F TYPE SCHUKO **GERMANY** 



E TYPE **FRANCE** 



J TYPE **SWITZERLAND** 



**G TYPE** UNITED KINGDOM



**B TYPE USA** 

## Standard benches

### Basic benches

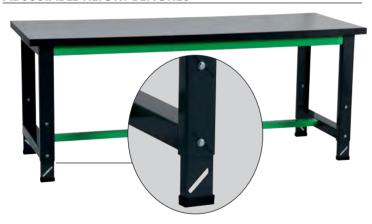
#### STRATIFIED TOP



A PVC protective pad is placed underneath each foot. Maximum load 1000kg uniformly distributed.

| Dims (mm)   | Ref.     | Ref.     |
|-------------|----------|----------|
| 1200 x 750  | ASV-127  | ASO-127  |
| 1200 x 1000 | ASV-1210 | ASO-1210 |
| 1500 x 750  | ASV-157  | ASO-157  |
| 1500 x 1000 | ASV-1510 | ASO-1510 |
| 1800 x 750  | ASV-187  | ASO-187  |
| 1800 x 1000 | ASV-1810 | ASO-1810 |
| 2000 x 750  | ASV-207  | ASO-207  |
| 2000 x 1000 | ASV-2010 | ASO-2010 |
| 2500 x 750  | ASV-257  | ASO-257  |

#### **ADJUSTABLE HEIGHT BENCHES**



High temperature stratified top (40 mm)

#### Adjustable height: 700 ~ 960mm (top included)

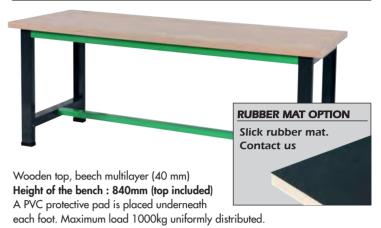
System with sliding foot components, adjustable continuously, tightened by screws and bolts. Each foot can be adjusted separately (if the floor is not completely flat). The strength of these adjustable benches is equal to standard benches.

A PVC protective pad is placed underneath each foot.

Maximum load 1000kg uniformly distributed.

| Dims (mm)   | Ref.     | Ref.     |
|-------------|----------|----------|
| 1200 x 750  | LSV-127  | LSO-127  |
| 1200 x 1000 | LSV-1210 | LSO-1210 |
| 1500 x 750  | LSV-157  | LSO-157  |
| 1500 x 1000 | LSV-1510 | LSO-1510 |
| 1800 x 750  | LSV-187  | LSO-187  |
| 1800 x 1000 | LSV-1810 | LSO-1810 |
| 2000 x 750  | LSV-207  | LSO-207  |
| 2000 x 1000 | LSV-2010 | LSO-2010 |
|             |          |          |

#### **WOODEN TOP**



| Dims (mm)   | Ref.     | Ref.     |  |
|-------------|----------|----------|--|
| 1200 x 750  | ABV-127  | ABO-127  |  |
| 1200 x 1000 | ABV-1210 | ABO-1210 |  |
| 1500 x 750  | ABV-157  | ABO-157  |  |
| 1500 x 1000 | ABV-1510 | ABO-1510 |  |
| 1800 x 750  | ABV-187  | ABO-187  |  |
| 1800 x 1000 | ABV-1810 | ABO-1810 |  |
| 2000 x 750  | ABV-207  | ABO-207  |  |
| 2000 x 1000 | ABV-2010 | ABO-2010 |  |

#### **BENCHES WITH WHEELS**



High temperature stratified top (40 mm)

Height of the bench: 965mm (top and wheels included)

4 wheels 100 mm diameter with rubber rolling band.

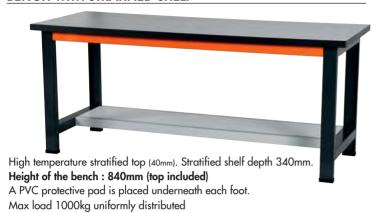
2 wheels have a brake.

Maximum load 500kg uniformly distributed.

Other heights on request.

| Dims (mm)   | Ref.     | Ref.     |
|-------------|----------|----------|
| 1200 x 750  | RSV-127  | RSO-127  |
| 1200 x 1000 | RSV-1210 | RSO-1210 |
| 1500 x 750  | RSV-157  | RSO-157  |
| 1500 x 1000 | RSV-1510 | RSO-1510 |
| 1800 x 750  | RSV-187  | RSO-187  |
| 1800 x 1000 | RSV-1810 | RSO-1810 |
| 2000 x 750  | RSV-207  | RSO-207  |
| 2000 x 1000 | RSV-2010 | RSO-2010 |

#### **BENCH WITH STRATIFIED SHELF**



| Dims (mm)   | Ref.     | Ref.     |
|-------------|----------|----------|
| 1500 x 750  | DSV-157  | DSO-157  |
| 1500 x 1000 | DSV-1510 | DSO-1510 |
| 1800 x 750  | DSV-187  | DSO-187  |
| 1800 x 1000 | DSV-1810 | DSO-1810 |
| 2000 x 750  | DSV-207  | DSO-207  |
| 2000 x 1000 | DSV-2010 | DSO-2010 |

### **TOOL HOLDER BENCH** Bench with tool holder vertical panels and tray rests High temperature stratified top (40mm) A PVC protective pad is placed underneath each foot Tools not supplied TOOL HOLDER PANELS ARE SOLD SEPARATELY SEE PAGE 56 **Ref.** BPV-1522 Ref. BPO-1522 Height of the bench : 840mm (top included). Top : $1500 \times 750mm$

Height of the vertical panels: 830mm Total height of the bench: 1670mm

| Description of the delivered components                | Quantity |
|--|----------|
| 1500x750mm stratified bench                            | 1        |
| perforated panel                                       | 2        |
| tool holder hook                                       | 24       |
| screwdriver holder                                     | 1        |
| trays panels   | 2        |
| 125 x 105mm trays                                      | 6        |
| 125 x 175mm trays                                      | 6        |
| adjustable shelf (in height)                           | 1        |
| Other configuration available upon request. Contact us |          |

#### BENCH WITH POWER CONSOLE & EMERGENCY STOP



| Dims    | Thermal magr | Thermal magnetic circuit breaker |           | urrent circuit breaker |
|---------|--------------|----------------------------------|-----------|------------------------|
| (cm)    | Ref.         | Ref.                             | Ref.      | Ref.                   |
| 180x75  | ESV-187      | ESO-187                          | ESV-187D  | ESO-187D               |
| 180x100 | ESV-1810     | ESO-1810                         | ESV-1810D | ESO-1810D              |
| 200x75  | ESV-207      | ESO-207                          | ESV-207D  | ESO-207D               |
| 200x100 | ESV-2010     | ESO-2010                         | ESV-2010D | ESO-2010D              |

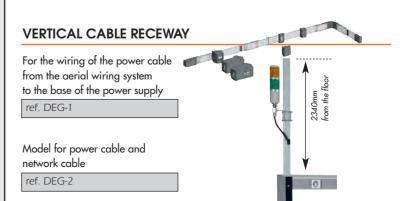
#### **BENCH WITH POWER CONSOLE**



| Dims    | Thermal magnetic circuit breaker 30mA residual current circuit brea |          | rrent circuit breaker |           |
|---------|---|----------|-----------------------|-----------|
| (cm)    | Ref.  | Ref.     | Ref.                  | Ref.      |
| 180x75  | FSV-187   | FSO-187  | FSV-187D              | FSO-187D  |
| 180x100 | FSV-1810  | FSO-1810 | FSV-1810D             | FSO-1810D |
| 200x75  | FSV-207   | FSO-207  | FSV-207D              | FSO-207D  |
| 200x100 | FSV-2010  | FSO-2010 | FSV-2010D             | FSO-2010D |

#### INFORMATION

All power sockets are wired (The power cable of the console is not supplied) Recommendation: use a power cable in 3x2.5mm² (phase + neutral + earth)



### Standard benches

### Benches with a shelf



#### **BENCH WITH A SHELF**

- High temperature stratified top
- Shelf with: 4x power sockets + 1x circuit breaker + 1x indicator light
- Shelf adjustable in height: maximum 400mm (depth: 400mm)
- Height of the bench: 1240mm (shelf included). Maximum load 1000kg uniformly distributed

|             | Thermal magr | netic circuit breaker | 30mA residual | current circuit breaker |
|-------------|--------------|-----------------------|---------------|-------------------------|
| Dims. (mm)  | Ref.         | Ref.                  | Ref.          | Ref.                    |
| 1800 x 750  | GSV-187      | GSO-187               | GSV-187D      | GSO-187D                |
| 1800 x 1000 | GSV-1810     | GSO-1810              | GSV-1810D     | GSO-1810D               |
| 2000 x 750  | GSV-207      | GSO-207               | GSV-207D      | GSO-207D                |
| 2000 x 1000 | GSV-2010     | GSO-2010              | GSV-2010D     | GSO-2010D               |



#### BENCH WITH A SHELF & A POWER CONSOLE

- Stratified top. Power console with: 6x power sockets + 1x circuit breaker + 1x indicator light
- Shelf with: 4x power sockets + 1x circuit breaker + 1x indicator light
- Shelf adjustable in height: maximum 400mm (depth: 400mm)
- Height of the bench: 1240 mm (shelf included). Maximum load 1000kg uniformly distributed (\*) for these references, only the circuit breaker of the console is a 30mA residual current type. The circuit breaker of the shelf remains a thermal magnetic one.

|             | Thermal mag | netic circuit breaker | 30mA residual | current circuit breaker |
|-------------|-------------|-----------------------|---------------|-------------------------|
| Dims. (mm)  | Ref.        | Ref.                  | Ref.          | Ref.                    |
| 1800 x 750  | JSV-187     | JSO-187               | JSV-187D      | JSO-187D                |
| 1800 x 1000 | JSV-1810    | JSO-1810              | JSV-1810D     | JSO-1810D               |
| 2000 x 750  | JSV-207     | JSO-207               | JSV-207D      | JSO-207D                |
| 2000 x 1000 | JSV-2010    | JSO-2010              | JSV-2010D     | JSO-2010D               |



#### BENCH WITH A HIGH SHELF & A POWER CONSOLE

- Stratified top. Power console with: 6x power sockets + 1x circuit breaker + 1x indicator light
- Shelf with: 4x power sockets + 1x circuit breaker + 1x indicator light
- Shelf adjustable in height: maximum 650mm (depth: 400mm)
- Height of the bench: 1490 mm (shelf included). Maximum load 1000kg uniformly distributed (\*) for these references, only the circuit breaker of the console is a 30mA residual current type. The circuit breaker of the shelf remains a thermal magnetic one.

|             | Thermal magr | netic circuit breaker | 30mA residual | current circuit breaker |
|-------------|--------------|-----------------------|---------------|-------------------------|
| Dims. (mm)  | Ref.         | Ref.                  | Ref.          | Ref.                    |
| 1800 x 750  | KSV-187      | KSO-187               | KSV-187D      | KSO-187D                |
| 1800 x 1000 | KSV-1810     | KSO-1810              | KSV-1810D     | KSO-1810D               |
| 2000 x 750  | KSV-207      | KSO-207               | KSV-207D      | KSO-207D                |
| 2000 x 1000 | KSV-2010     | KSO-2010              | KSV-2010D     | KSO-2010D               |

INFORMATION: All power sockets are wired (The power cable of the console is not supplied) Recommendation: use a power cable in 3x2.5mm<sup>2</sup> (phase + neutral + earth)

#### **RJ45 PLUG (NOT WIRED)**





#### **RJ45 WIRED PLUG OPTION**



Combination of 2 RJ45 connectors connected together in the console. The side connector A is used to connect the network input, the front connector **B** is for the user's connection.

ref. CARJ45

## Benches with leg-mounted cabinet and drawers

#### **CABINET WITH 5 DRAWERS**



- temperature stratified top (40 mm). Maximum load 1000kg
- Height of the bench: 840mm (top included)
- Cabinet with 5 drawers (4 drawers H100mm + 1 drawer H300mm)

| Dims (mm)   | Ref.       | Ref.       |
|-------------|------------|------------|
| 1800 x 750  | 50TV-187S  | 50TO-187S  |
| 1800 x 1000 | 50TV-1810S | 50TO-1810S |
| 2000 x 750  | 50TV-207S  | 50TO-207S  |
| 2000 x 1000 | 50TV-2010S | 50TO-2010S |

#### CABINET WITH LOCKING SWING DOOR



- temperature stratified top (40 mm). Maximum load 1000kg
- Height of the bench: 840mm (top included)
- Cabinet with locking swing door and 2 shelves

| Dims (mm)   | Ref.       | Ref.       |
|-------------|------------|------------|
| 1800 x 750  | 80TV-187S  | 80TO-187S  |
| 1800 x 1000 | 80TV-1810S | 80TO-1810S |
| 2000 x 750  | 80TV-207S  | 80TO-207S  |
| 2000 x 1000 | 80TV-2010S | 80TO-2010S |

#### **BENCHES WITH 3 HANGING DRAWERS**



- temperature stratified top (40 mm). Maximum load 1000kg
- Height of the bench: 840mm (top included)
- Cabinet with 2 drawers H100mm / 1 drawer H200mm

Hanging drawers with lock (can be placed anywhere under the bench top) For adjustable height bench with hanging drawers, contact us

| Dims (mm)   | Ref.     | Ref.     |  |
|-------------|----------|----------|--|
| 1800 x 750  | YSV-187  | YSO-187  |  |
| 1800 x 1000 | YSV-1810 | YSO-1810 |  |
| 2000 x 750  | YSV-207  | YSO-207  |  |
| 2000 x 1000 | YSV-2010 | YSO-2010 |  |

#### **CABINET WITH 7 DRAWERS**



- temperature stratified top (40 mm). Maximum load 1000kg
- Height of the bench: 840mm (top included)
- Cabinet with 7 drawers (7 drawers H100mm)

| Dims (mm)   | Ref.       | Ref.       |  |
|-------------|------------|------------|--|
| 1800 x 750  | 70TV-187S  | 70TO-187S  |  |
| 1800 x 1000 | 70TV-1810S | 70TO-1810S |  |
| 2000 x 750  | 70TV-207S  | 70TO-207S  |  |
| 2000 x 1000 | 70TV-2010S | 70TO-2010S |  |

#### **CABINET WITH 3 DRAWERS**



- temperature stratified top (40 mm). Maximum load 1000kg
- Height of the bench: 840mm (top included)
- Cabinet with 3 drawers (2 drawers H200mm + 1 drawer H300mm)

| Dims (mm)   | Ref.       | Ref.       |  |
|-------------|------------|------------|--|
| 1800 x 750  | 31TV-187S  | 31TO-187S  |  |
| 1800 x 1000 | 31TV-1810S | 31TO-1810S |  |
| 2000 x 750  | 31TV-207S  | 31TO-207S  |  |
| 2000 x 1000 | 31TV-2010S | 31TO-2010S |  |

#### **BENCHES WITH 1 HANGING DRAWER**



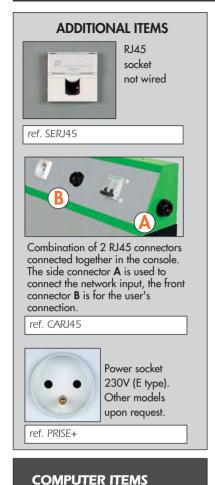
- temperature stratified top (40 mm). Maximum load 1000kg
- Height of the bench: 840mm (top included)
- Cabinet with 1 drawer H100mm

Hanging drawers with lock (can be placed anywhere under the bench top) For adjustable height bench with hanging drawers, contact us

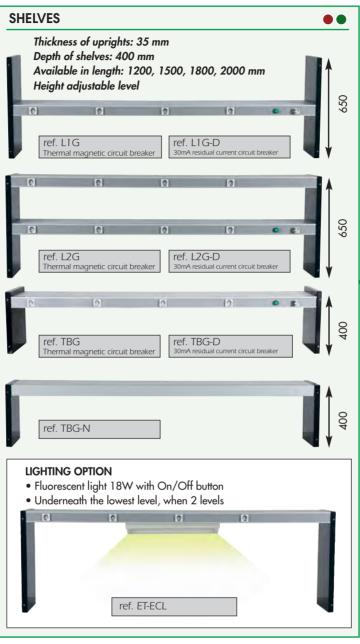
| Dims (mm)   | Ref.     | Ref.     |  |
|-------------|----------|----------|--|
| 1800 x 750  | XSV-187  | XSO-187  |  |
| 1800 x 1000 | XSV-1810 | XSO-1810 |  |
| 2000 x 750  | XSV-207  | XSO-207  |  |
| 2000 x 1000 | XSV-2010 | XSO-2010 |  |

## Standard benches

## Choose and configure your own workbench



**SEE PAGES 18-19** 





#### HIGH TEMPERATURE STRATIFIED\* TOP AND WOODEN TOP



| REF    | WIDTH.       | DEPTH           |
|--------|--------------|-----------------|
| PUG-ST | 1200mm STRAT | 750mm or 1000mm |
| PL-PL  | 1200mm WOOD  | 750mm or 1000mm |
| PUG-ST | 1500mm STRAT | 750mm or 1000mm |
| PL-PL  | 1500mm WOOD  | 750mm or 1000mm |
| PUG-ST | 1800mm STRAT | 750mm or 1000mm |
| PL-PL  | 1800mm WOOD  | 750mm or 1000mm |
| PUG-ST | 2000mm STRAT | 750mm or 1000mm |
| PL-PL  | 2000mm WOOD  | 750mm or 1000mm |

MAIN FEATURES OF HIGH TEMPERATURE STRATIFIED TOP













MAIN FEATURES OF WOODEN TOP





distributed

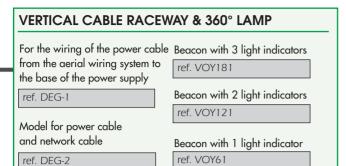
Heat resistant Abrasion resistant

Scratch resistant Chimical resistant

Easy to clean

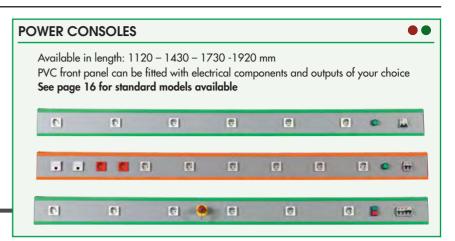
Uniformly distributed

Shock resistant











**LEG-MOUNTED CABINETS WITH LOCK** 



### HANGING DRAWERS

- Hanging drawers, 1 to 4 drawers
- For top in depth 750 mm or 1000 mm **SEE PAGE 15 FOR MORE INFORMATION**



#### LAYOUT OF DRAWERS

- 3 different types of compartments
- Suitable for drawers of leg-mounted cabinets or hanging drawers

SEE PAGE 15 FOR MORE INFORMATION



## Standard benches

## Leg mounted cabinet for benches (with lock)



There are two depths available for cabinets with swing doors and drawers: 750 and 1000mm For this latter, the reference is followed by the extension 100. Example: 30G-100

- The drawers are mounted on ball bearings so they slide easily and silently. They are removable so drawers can be switched around or sorted.
- The lock secures all the drawers at the same time. In standard, all keys are identical. Different keys can be available upon request.
- Drawers with a height of 300 mm are suitable for standard hanging folders.



ref. 30G-75 ref. 30G-100



ref. 31G-75 ref. 31G-100



ref. 40G-75 ref. 40G-100



ref. 41G-75 ref. 41G-100



ref. 42G-75 ref. 42G-100



ref. 43G-75 ref. 43G-100



ref. 50G-75 ref. 50G-100



ref. 51G-100



ref. 52G-75 ref. 52G-100



ref. 53G-75 ref. 53G-100



ref. 60G-75 ref. 60G-100



ref. 61G-75 ref. 61G-100



ref. 70G-75 ref. 70G-100



## Hanging drawers

#### HANGING DRAWERS (300 SERIES) WITH LOCK AND KEY

For top in depth 750 mm or 1000 mm - Height: 400 mm - Width: 450 mm

| REF    | Drawer | H=100mm | H=200mm | H=300mm |
|--------|--------|---------|---------|---------|
| TIG-30 |        | 3       | /       | /       |
| TIG-32 |        | 1       | 1       | /       |
| TIG-33 |        | /       | /       | 1       |

As standard, all keys are identical. Different keys are available upon request



#### HANGING DRAWER WITH LOCK AND KEY

For top in depth 750 mm or 1000 mm Height: 100 mm - Width: 400 mm

ref. TIG-10



#### HANGING DRAWERS (400 SERIES) WITH LOCK AND KEY

For top in depth 750 mm or 1000 mm - Height: 490 mm - Width: 450 mm

| REF    | Drawer | H=100mm | H=200mm | H=300mm |
|--------|--------|---------|---------|---------|
| TIG-40 |        | 4       | /       | /       |
| TIG-41 |        | 2       | 1       | /       |
| TIG-42 |        | /       | 2       | /       |
| TIG-43 |        | 1       | /       | 1       |



Drawers with a height of 300 mm are suitable for standard hanging folders.

## Layout of drawers in cabinet or hanging drawers

The drawers can be removed easily by lifting them out, so you can take parts to a construction site, sort the drawers without having to bend over, or simply reverse two drawers. The drawers are mounted on ball bearings. They slide easily and silently.

You can place moulded drawer tidies in these drawers.

3 types of compartment are available:

• Small: 75x75 H55mm • Medium: 285x75 H55mm fitted with a removable divider • Large: 415x75 H55mm

fitted with three removable dividers



4 fixed & 16 modular spaces

4 large (4 to 16 compartments)



12 fixed & 8 modular spaces 12 small 4 medium (4 to 8 compartiments)



18 fixed & 4 modular spaces 18 small 2 medium (2 to 4 compartiments)



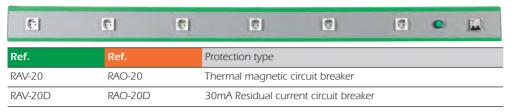
24 fixed spaces 24 small

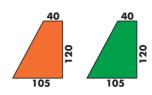
## Power consoles on the bench top

HARD-WEARING LAMP (without maintenance)

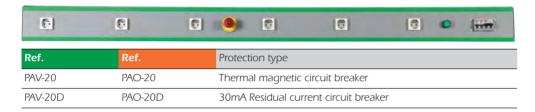


Power console with a PVC front panel. Available in a range of lengths 1120 – 1430 – 1730 – 1920 mm. 1920mm in standard. Please confirm the length at order.

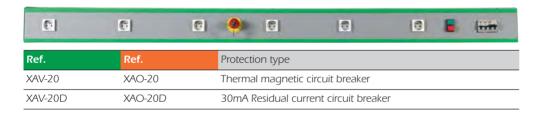




- 6 power sockets 230V (2P+E)
- A circuit breaker (two possible choices)
- A hardwearing Ø30 LED lamp indicating that sockets are switched on

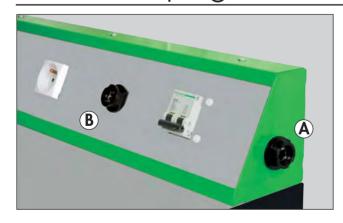


- 6 power sockets 230V (2P+E)
- A circuit breaker (two possible choices)
- A hardwearing Ø30 LED lamp indicating that sockets are switched on
- A key-operated emergency stop button which activates an undervoltage trigger, thereby ensuring posi-



- 6 power sockets 230V (2P+E)
- A circuit breaker (two possible choices)
- A hardwearing Ø30 LED lamp indicating that sockets are switched on
- A key-operated emergency stop button which activates an undervoltage trigger, thereby ensuring posi-
- An On/Off button (positive safety)

## RJ45 wired plug



Combination of 2 RJ45 connectors connected together in the console. The side connector  ${\bf A}$  is used to connect the network input, the front connector **B** is for the user's connection.

ref. CARJ45



### Additional items

All these elements can be added to the power consoles presented below cons.



#### **SATELITTE PLUG**

Ref. SF-SAT



#### TV PLUG

Ref. SE-TEL



#### **INVERTER PLUG**

Ref. SE-UPS

Not wired For U.P.S.



#### **RJ45 PLUG (NOT WIRED)**

ref. SERJ45



#### 230V PLUG (2P + E)

ref. PRISE+

Additional power socket.



#### **DC POWER SUPPLY**

ref. AD15I

Unit of 2 fixed DC power supplies +15V/3A - 15V/3A

INFORMATION: All power sockets are wired (The power cable of the console is not supplied) Recommendation: use a power cable in 3x2.5mm<sup>2</sup> (phase + neutral + earth)

### 230V multi sockets unit



Can only be fixed with plastic screws (plastic housing)

ref. LGS-8

Unit of 8 power sockets 230V (2P+E) - 3860W. Dim: 495 x 85 x 55mm ref. LGS-41

Unit of 8 power sockets 230V (2P+E) - 1930W. Dim: 290 x 85 x 55mm

## Short power console 500mm





Ref. VXV-1 Ref. VXO-1 Thermal magnetic circuit breaker

Ref. VXO-2

30mA residual current circuit breaker

- 4 power sockets 230V
- 1 circuit breaker
- Power gland (in standby)
- Sockets are wired but the power cable is not supplied. Recommendation: use a supple power cable in 3 strands of 2.5mm<sup>2</sup>

## Computer workbenches

## Computer items for workbenches



#### **SHELF**



Short shelf fixed on the bench-top Width: 500mm, Height & depth: 400 mm The bench top positioning can be selected during the assembly.

ref. IFG-ETG



#### SLIDING KEYBOARD/MOUSE SHELF UNDER THE BENCH-TOP



#### ref. IFG-TAB

The sliding shelf can be locked in the extended position Dim: 620 x 320mm. Stratified top. Supplied pre-assembled.

#### **BASIC CPU TOWER HOLDER**



#### ref. IFG-ECO

Holder is screwed under the bench. Users have easy access to cable connections and drives. Sturdy and economical, this device ensures that the CPU tower is stored tidily and protected against theft. .

- 45 x 45mm wire mesh
- 50mm front locking bar
- Total internal height = 500mm
- Internal width 245mm
- Internal depth 500mm
- Attached with lag screws (supplied)
- EPOXY paintwork. Steel sheet base plate. Unloaded weight: 5 kg

#### CPU TOWER HOLDER adjustable in height from 360 to 480mm



#### ref. IFG-UC

Adjustable in increments of 30mm. Solid sheet box. With anti-theft bars at the front

and rear.



ref. IFG-UC2

Adjustable in increments of 30mm. Solid sheet box.

With anti-theft doors at the front and rear with locks.

#### PROTECTIVE HOUSING FOR LCD SCREEN



Metallic housing with a transparent and shock resistant front panel, provided with an adjustable LCD monitor arm. The 3mm Lexan® (polycarbonate resin thermoplastic) panel is unbreakable and can be easily replaced in case of voluntary damages. It protects the LCD screen against all voluntary damages: Stanley knife®, shocks, tags and also modification of the LCD screen settings ...

The protective housing is set on a LCD monitor arm pivoting around 4 rotation axis. VES-187 is suitable for all LCD screen with a maximum dimensions of  $480 \times 380 \times 80$ mm, 12kg max. The upper part behind is in wire netting for a good heat evacuation. In order to change parameters, the teacher only needs to unscrew the upper part and slide the transparent front panel. DIMENSIONS:

Overall: 490 x 390 x 90 mm

#### **FLAT SCREEN HOLDER**



- For flat screen monitors up to 15 kg
- Attached to edge of table by locking pliers with two tightening screws.
- 4 rotation points on 3 ball
- Integrated cable guide
- Supplied with 4 screws for flat screen fixing

ref. VES-151

#### **CABLE GROMMET OPTION**



- Optional raceway through the bench-top
- Factory assembly only

ref. PASS-70

#### **FLAT SCREEN SUPPORTS**

#### **FEATURES SHARED BY 3 MODELS**

- Attached to edge of table by locking pliers with a tightening screw for a table thickness between 15 and 100mm. The attachment consists of a 400mm high support pole fitted with a sliding ball joint to adjust the height of the screen.
- Built-in cable guide
- Supplied with 4 screws for the monitor.



#### Model 500

- For flat screen monitors weighing up to 12kg
- 3 rotation points on 2 ball joints

ref. VES-500

#### Model 501

- For flat screen monitors weighing up to 10kg
- 4 rotation points on 3 ball joints
- Arm length 250mm

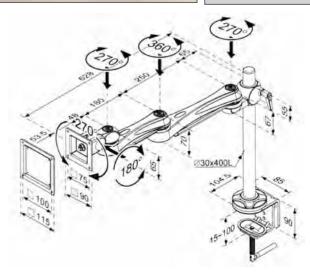
ref. VES-501



#### Model 502

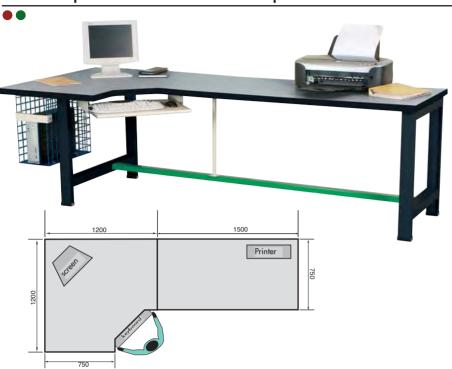
- For flat screen monitors weighing up to 8kg
- 5 rotation points on 4 ball joints
- Arm lengths of 250mm and 180mm

ref. VES-502



## Computer workbenches

## Computer workshop



This bench opens up a wealth of possibilities for expanding access to computer workshops, thanks to the large space available on the bench-top. Its standard supplied equipment, which is described below, can be modified on simple request. Its L-shape means that it is highly ergonomic. It is reversible; the return can be positioned either on the left or on the right.

#### **COMPONENTS AND FEATURES OF STATION**

- 2 high-temperature stratified tops Separable corner and return PVC edges Thickness of 40mm
- A "cage"-type CPU tower holder with anti-theft bar at the front.
- A sliding keyboard/mouse holder in the corner
- 1 complete stand consisting of: Two single H-shaped legs, 2250mm apart Vertical support leg under bench-top Footrest bar
- Epoxy paintwork

ref. TSV-30

ref. TSO-30

Computer hardware not supplied

## Workstation for practical work



MADE TO MEASURE

This bench is a comfortable and spacious unit for tutorials which require the use of computers and measuring equipment.

With a side shelf, a mini-console and special equipment to accomodate all the computer elements.

The TXL40 is very convenient to use.

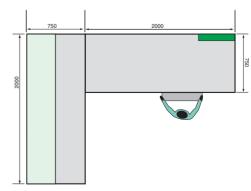
#### **COMPONENTS AND FEATURES OF THE STATION**

- Two 40mm high-temperature stratified tops with PVC edges
- 1 "cage"-type CPU tower holder with anti-theft bar at the front.
- 1 sliding keyboard/mouse holder
- 1 base with furnace-baked epoxy paint, vertical support leg and footrest bar.
- 1 mini-console fitted with 4 power sockets 230V
- + circuit breaker + LED lamp
- 1 shelf fitted with 4 power sockets 230V + circuit breaker at the back + LED lamp
- Height of the working surface: 840mm (top included)
- A very large work surface

#### ref. TXV-40

ref. TXO-40

#### Computer hardware not supplied



## Industrial computer trolley





Industrial computer cart, ideal for the workshop. Dimensions (excluding screen support) 750 x 670mm. Height 965mm. Max load 500kg.

#### FEATURES OF THE WORKSTATION

- High-temperature stratified bench-top 40mm thick PVC bench-top edges
- Cage type CPU holder With anti-theft bar at the front.
- 1 complete stand (epoxy paint) including: Two single H type feet 3 cross rails including 1 foot rest 4 casters Ø100mm including 2 with brakes
- 1 flat screen support arm Table edge attachment between 15 and 100mm thick. 400-mm high pole, fitted with sliding ball joint. Built-in cable guide.

Supplied with 4 screws for the screen. For flat screens up to 12 kg 3 rotation points on 2 ball joints Sliding ball joint for screen height adjustment

ref. RSV-INF

ref. RSO-INF

Computer hardware not supplied

### Mobile workstation for industrial computer





Industrial computer cart, ideal for the workshop. Dimensions (excluding screen support) 1500 x 750mm Height 965mm. Max load 500kg.

#### FEATURES OF THE WORKSTATION

- High-temperature stratified bench-top 40mm thick PVC bench-top edges
- Cage type CPU holder With anti-theft bar at the front.
- A sliding keyboard/mouse holder in the corner
- 1 complete stand (epoxy paint) including: Two single H type feet 3 cross rails including 1 foot rest 4 casters Ø100mm including 2 with brakes
- 1 flat screen support arm Table edge attachment between 15 and 100mm thick. 400-mm high pole, fitted with sliding ball joint. Built-in cable guide.

Supplied with 4 screws for the screen. For flat screens up to 12 kg 3 rotation points on 2 ball joints Sliding ball joint for screen height adjustment

ref. RSV-PRO

ref. RSO-PRO

Computer hardware not supplied



Option 230V multi sockets unit fixed under the top

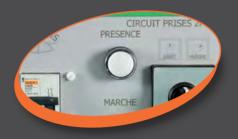
4 plugs 2P+E - 3860W Dim. 290 x 80 x 60mm.

ref. LGS-41

## **WORKSTATIONS** our quality commitment







### Engraving on the front in the part

Potential for symbols, icons, logos or personalisations engraved on the front. The engraving in the part is impervious to abrasion and cannot be removed.





### Crimped cable conduit sleeves for optimal contact

The crimped sleeves limit risk of fire or electrocution during maintenance.



Front cover non-removable.



### **Resistant LED indicator lights**

Cannot be removed by the student (no ability to unscrew the front cap) No risk of accidental contact for the maintenance operator





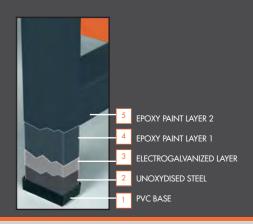
### Control console free of metal components

All our components are free of accessible metal pieces (except for the ground). The PVC front face is entirely free of metal elements, even of screws, which provides a high degree of safety against indirect contact.



### **Epoxy paint & electrogalvanized steel**

All of our leg assemblies are manufactured from electrogalvanised steel sheet, and makes the sheet extremely resistant to corrosion. This protection is strengthened further by two layers of furnacebaked epoxy paint, which means that it is suitable for use even in tropical settings.



## Multi purpose workstation

## Standard multi-purpose workstation

HARD-WEARING LAMP (without maintenance)



It is a single, fully-equipped electric-powered station which complies with current standards and is ready to be connected to the electric network. The start-up systems and connection terminals are installed on an electrotechnical console. There are many standard configurations, and these can be modified easily on simple application. All workbenches have a key-operated "EMERGENCY STOP" button for autonomous positive safety and an On/Off push-button with a lamp and "memory" function.

#### ANTI-VANDALISM COVER WITH KEY

This pull-down cover in front of the electrical equipment in the console prevents students from scribbling on or vandalising the front and its equipment. Standard dimensions: 1200mm.

#### Other dimensions upon request.











System of lock with hook taken in the Compatibility with a shelf, contact us

ref. VS-1200

| Ref.  | Ref.  | Thermal magnetic circuit breaker (D type) | 3-phase<br>mains on<br>4 safety<br>terminals | 4 power<br>sockets 230V<br>2P+E | 3-phase<br>0-430V<br>3.5kVA<br>variable | Fixed<br>240VDC/2A<br>insulated | Fixed 24VAC/5A with circuit breaker | Stratified<br>bench-top<br>2000x750 | Stratified<br>bench-top<br>2000x1000 | Technical<br>leg |
|-------|-------|---|--|---------------------------------|---|---------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|------------------|
| SYO-1 | SYV-1 | Х   | Х  | Х                               | Х                                       | Х                               | Х                                   | Х                                   |                                      | X                |
| SYO-2 | SYV-2 | Х   | Х  | Х                               | Х                                       | Х                               | Х                                   |                                     | Х                                    | Х                |
| SYO-3 | SYV-3 | Х   | Х  | Х                               |   | Х                               | Х                                   | Х                                   |                                      |                  |
| SYO-4 | SYV-4 | Х   | Х  | Х                               |   | Х                               | Х                                   |                                     | Х                                    |                  |
| SYO-5 | SYV-5 | Х   | Х  | Х                               |   |                                 | Х                                   | Х                                   |                                      |                  |
| SYO-6 | SYV-6 | Х   | Х  | Х                               |   |                                 | Х                                   |                                     | Х                                    |                  |
| SYO-7 | SYV-7 | Х   | Х  | Х                               |   |                                 |                                     | Х                                   |                                      |                  |
| SYO-8 | SYV-8 | Х   | Х  | Х                               |   |                                 |                                     |                                     | Х                                    |                  |

### HARD-WEARING LAMP WITHOUT MAINTENANCE





## Multi purpose workstation

Choose & configure your own workstation

First select the base unit (Stand + top + bare console) of your choice from the two versions available, and select the electrical elements that you wish to install from the various options listed (with an obligatory main module described next page).

Legs + stratified top 2000 x 750mm + bare console

ref. SYV-750

ref. SYO-750

Legs + stratified top 2000 x 1000mm + bare console

ref. SYV-1000

ref. SYO-1000



#### 3-PHASE MODULE 3 X 400V



ref. SE5TR

3-phase supply module (4kVA - fixed 3x400V+N) On-Off key control

#### DC MODULE -15VDC +15VDC 3A



ref. AD15I

DC fixed supply with 2 outputs +15V/3A -15V/3A

#### MAINS SOCKETS MODULE





ref. SE4PC

Module with 2 x 2 power sockets 230V + lamp. WITH POWER SOCKETS OF YOUR CHOICE

#### **AC SUPPLY MODULE 24V**



ref. SE3BT

Module 24V/5A insulated from mains

#### 3-PHASE HYPRA SOCKET MODULE



Mounted in parallel on 3-phase supply with output terminals (only available with option SE5TR)

#### MEASURED POWER SOCKET MODULE



ref. SEPCW

Output on power socket 2P+E with wattmeter direct display of consumed power.

Measuring apparatus: 10000 pts Maximum power: 3500W

Protection by circuit breaker on the front panel

### **ANTI-VANDALISM EMERGENCY STOP**



The emergency stop head turns freely, vandals cannot tear out the electrical connections by forceably turning the head of the emergency stop which stays attached to the front.

ref. ARU-AV

#### DC MODULE (240VDC)



ref. SE2SO

DC fixed 240V/2A insulated from mains

#### 3-PHASE MODULE 0-430V



ref. SE6VA

3-phase 0-430 VAC variable - 3.5kVA Module with technical leg. On-Off key control

#### 360° LIGHT SIGNAL TOWERS

Beacon with 3 light indicators: red, yellow and green Ø60mm

ref. VOY181

Beacon with 2 light indicators: red and green Ø60mm

ref. VOY121

Beacon with a red light indicator (voltage presence) Ø60mm

ref. VOY61

#### **COLOURS AVAILABLE UPON REQUEST**

white - orange - red - green - blue



HARD-WEARING LED LAMPS



#### **OBLIGATORY MAIN MODULES**

Choose one of these main modules with or without on/off key control

SE1MA without on/off key control

ref. SE1MA

for 3-phase mains supply

ref. SE1MA-MONO

for single-phase mains supply

SEMC with on/off key control

ref. SEMC

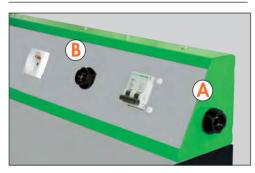
for 3-phase mains supply

ref. SEMC-MONO

for single-phase mains supply



#### **WIRED SOCKET RJ45 MODULE**



#### ref. CARJ45

Combination of 2 RJ45 connectors connected together in the console. The side connector A is used to connect the network input, the front connector **B** is for the user's connection.

#### **RJ45 SOCKET MODULE**



ref. SERJ45

RJ45 socket installed but not connected

### VERTICAL CABLE RACEWAY For the wiring of the power cable from the aerial wiring system to the base of the power 2340mm supply from the floor ref. DEG-1 Model for power cable and network cable ref. DEG-2

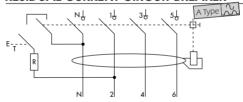
#### **POWER SUPPLY BOX**



ref. CIA-A4

3-phase mobile power supply. On/off button + emergency push button. Outputs on safety terminals + protection by circuit breaker

#### RESIDUAL CURRENT CIRCUIT BREAKER



ref. DIF30-4S for 3-phase workstation

ref. DIF30-2C for single-phase workstation

30mA protection at the front. Useful only if the room is not equipped with this device.

#### ANTI-VANDALISM COVER WITH KEY

This pull-down cover in front of the electrical equipment in the console prevents students from scribbling on or vandalising the front and its equipment. Standard dimensions: 1200mm.

Other dimensions upon request.



System of lock with hook taken in the plate



ref. VS-1200

#### COMPUTER CONNECTION (COPY OF THE REAR PANEL OF A PC)



ref. SEINF

The rear panel of a PC is transferred on the front console with:

- 2x serial & 1x parallel port
- 2x USB port
- 1x VGA 15 pins port
- 1x PS/2 Keyboard port

All cables get out under the worktop, ready to be linked to a

Other configurations are available upon request.

#### LOW SHELF WITH POWER SOCKETS



Low shelf with 4 power sockets, lamp and circuit breaker Height: 400mm

ref. TBG

## Electrotechnical benches

## Electrotechnical benches



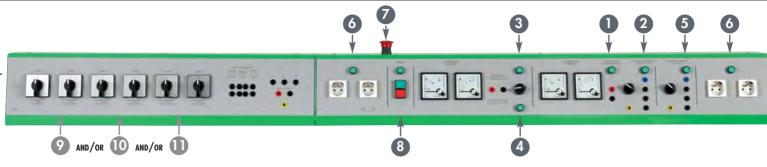
| 4000VA  |         | ELECTROTEC | ELECTROTECHNICAL BENCHES OF 4KVA RATING |           |           |             |             |           |           |            |  |
|---------|---------|------------|---|-----------|-----------|-------------|-------------|-----------|-----------|------------|--|
|         |         | DC SUPPLY  | 3-PHASE                                 | AUXILIARY | AUXILIARY | 3-PHASE     | 4 POWER     | RESISTIVE | INDUCTIVE | CAPACITIVE |  |
| Ref.    | Ref.    | 0-270V     | 0-450V                                  | 0-250VDC  | 0-250VAC  | 3x400VAC    | SOCKETS     | LOAD      | LOAD      | LOAD       |  |
| KCI.    | KCI.    | 16A        | 8A                                      | 2.5A      | 2.5A      | 4 TERMINALS | 230V 2P + E | 4000W     | 4000VAR   | 4000VAR    |  |
|         |         | • •        | •                                       | • •       | •         | •           | •           | •         | •         | •          |  |
| BZO-40A | BZV-40A | Х          | Х                                       | Х         | Х         | Х           | Х           | Х         | X         | Х          |  |
| BZO-40B | BZV-40B | Х          | Х                                       | Х         | Х         | Х           | Х           | Х         | Х         |            |  |
| BZO-40C | BZV-40C | Х          | Х                                       | Х         | Х         | Х           | Х           | Х         |           |            |  |
| BZO-40D | BZV-40D | Х          | Х                                       | Х         | Х         | Х           | Х           |           |           |            |  |

| 2000VA  |         | ELECTROTECHNICAL BENCHES OF 2KVA RATING |         |           |           |             |             |           |           |            |  |
|---------|---------|---|---------|-----------|-----------|-------------|-------------|-----------|-----------|------------|--|
|         |         | DC SUPPLY                               | 3-PHASE | AUXILIARY | AUXILIARY | 3-PHASE     | 4 POWER     | RESISTIVE | INDUCTIVE | CAPACITIVE |  |
| Ref.    | Ref.    | 0-270V                                  | 0-450V  | 0-250VDC  | 0-250VAC  | 3x400VAC    | SOCKETS     | LOAD      | LOAD      | LOAD       |  |
| Ker.    | iter.   | 8A                                      | 5A      | 2.5A      | 2.5A      | 4 TERMINALS | 230V 2P + E | 2000W     | 2000VAR   | 2000VAR    |  |
|         |         | • •                                     | •       | • •       | •         | •           | •           | •         | •         | •          |  |
| BZO-20A | BZV-20A | Х                                       | Х       | Χ         | Х         | X           | Х           | Х         | Х         | X          |  |
| BZO-20B | BZV-20B | Х                                       | Х       | Х         | Х         | Х           | Х           | Х         | Х         |            |  |
| BZO-20C | BZV-20C | Х                                       | Х       | Х         | Х         | Х           | Х           | Х         |           |            |  |
| BZO-20D | BZV-20D | Х                                       | Х       | Х         | Х         | Х           | Х           |           |           |            |  |

| 1000VA  |         | ELECTROTEC | HNICAL BENC | HES OF 1KVA R | ATING     |             |             |           |           |            |
|---------|---------|------------|-------------|---------------|-----------|-------------|-------------|-----------|-----------|------------|
|         |         | DC SUPPLY  | 3-PHASE     | AUXILIARY     | AUXILIARY | 3-PHASE     | 4 POWER     | RESISTIVE | INDUCTIVE | CAPACITIVE |
| Ref.    | Ref.    | 0-270V     | 0-430V      | 0-250VDC      | 0-250VAC  | 3x400VAC    | SOCKETS     | LOAD      | LOAD      | LOAD       |
| Rei.    | NCI.    | 7A         | 5A          | 2.5A          | 2.5A      | 4 TERMINALS | 230V 2P + E | 1000W     | 1000VAR   | 1000VAR    |
|         |         | • •        | •           | • •           | •         | •           | •           | •         | •         | •          |
| BZO-10A | BZV-10A | Х          | Х           | Х             | Х         | Х           | Х           | Х         | X         | Х          |
| BZO-10B | BZV-10B | Х          | Х           | Х             | Х         | Х           | Х           | Х         | Х         |            |
| BZO-10C | BZV-10C | Х          | Х           | Х             | Х         | Х           | Х           | Х         |           |            |
| BZO-10D | BZV-10D | Х          | Х           | Х             | Х         | Х           | Х           |           |           |            |

• HARD-WEARING LAMP WITHOUT MAINTENANCE • INSULATED OUTPUT

•LOADS INSIDE THE LEFT-HAND CABINET



### MAIN DC SUPPLY

0 - 270V variable and insulated from the mains by insulated transformer as specified by safety standards for the use of direct currents. The whole unit is protected against overloads and short circuits. Rectification is provided by a generously over-specified Graetz bridge (ripple rate 4%). Voltmeter and ammeter displays. A magneto-thermal circuit breaker protects this output. A contactor with a control button gives start/stop functions command, on condition that this the autotransformer output is at OV. An indicator light shows that the unit is powered up.

### **VARIABLE 3-PHASE SUPPLY**

Variable by autotransformer and protected against overloading and short circuits. The voltage range on offer is 0-430V between phases (450V for the 4000VA model). A thermal magnetic circuit breaker protects this output. A push button contact performs start/stop switching as long as the autotransformer is at 0 voltage. An indicator light shows that the unit is powered up

Main supplies 1 & 2 can't work simultaneously

### DC AUXILIARY SUPPLY

0-250V variable by single phase autotransformer protected against overloading and short circuits. Voltmeter and ammeter displays. An On/Off button control. An indicator light shows that the unit is powered up.

Auxillary supplies 3 & 4 can't work simultaneously

### SINGLE-PHASE AUXILIARY SUPPLY

0-250V variable by single phase autotransformer protected against overloading and short circuits. Voltmeter and ammeter displays. An On/Off button control.

### 5 3-PHASE SUPPLY (3X400VAC FIXED)

On four terminals, protected, with switch and On/Off button control. An indicator light shows that the unit is powered up

### **4 POWER SOCKETS 230V (2P + E)**

230V sockets (2 on either side)

### EMERGENCY STOP BUTTON

Key controlled in the centre of the console (can be mounted in alternative positions on request). It cuts out a single bank without affecting the others. Positive security stop.

### **8** PUSH BUTTON

Start/Stop with indicator providing start-up with "memory" function. An indicator light shows that the unit is powered up

### **RESISTIVE LOAD**

Consisting of a resistive wire wound on ceramic cores (protected against oxydation). The 6 switches (rapid breaking type for inductive loads) can be varied in

The switches are placed on the bank next to the input connectors and selector links for single-phase and DC 240V, 3-phase 240VAC or 3-phase 400VAC.

### CAPACITIVE LOAD

Consisting of capacitors which can operate at 450VAC. The switches, selector links and input connectors are on the bank and easy to access. The load can be varied in 5% steps. It may be used in single-phase on DC 240V, 3-phase 240VAC or 3phase 400VAC. (A version only)

### INDUCTIVE LOAD

3 moveable cores moved by a control wheel and a endless screw, altering the inductance of the 3 windings allows regulation of power factor from 0.9 to 0.1 in single- or 3-phase. The links and input connectors are mounted on the console and easily accessable. It may be used in single-phase DC 240V, 3-phase 240V or 3-phase 400V. The coils are all protected by fuses (A and B versions only).

For your safety the DC outputs are separated from the mains by safety isolating transformer





## Electrotechnical benches

## Options for Electrotechnical bench

### **BENCH TOP IN 1000mm DEPTH**

Dimensions 2000 x 1000 mm Usable space 2000 x 850 mm

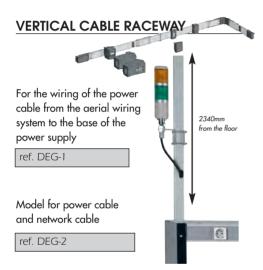
ref. AUG1000-ST

#### **SHELF**

Lowered shelf (400mm high) Depth: 400mm

ref. TBG-200





#### 360° LIGHT SIGNAL TOWERS

Beacon with 3 light indicators: red, yellow and green

ref. VOY181

Beacon with 2 light indicators: red and green

ref. VOY121

Beacon with a red light indicator (voltage presence)

ref. VOY61

### **COLOURS AVAILABLE UPON REQUEST**



#### ANTI-VANDALISM COVER WITH KEY

This pull-down cover in front of the electrical equipment prevents students from scribbling on or vandalising the front panel and its equipment. Standard dimensions: 1200mm or 2000mm.





ref. VSG-20 for power console 2000mm







System of lock with hook taken in the plate

#### DC SUPPLY



Unit of 2 fixed DC power supplies +15V/3A -15V/3A

ref. AD15I

#### DC VARIABLE SUPPLY



DC power supply with adjustable voltage 0-30V DC/3A

ref. R3030I

### 3-PHASE HYPRA SOCKET (400VAC)



Fitted in parallel on the three-phase mains output terminals

ref. HP4

#### **CANALIS CONNECTER**

Connector for KNA Canalis with fuses 10x38.



ref. KNA02CF5

#### 3-PHASE 24VAC SUPPLY



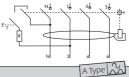
3-phase insulated from the mains, 3 x 24 VAC/250VA and protected by a circuit breaker. Output controlled by On/Off contactor and indicated by a LAMP.

ref. TRI24

#### RESIDUAL CURRENT CIRCUIT BREAKER

30mA at the front. Only useful if the room is not equipped with this device.

ref. DIF30-4B



ref. CTRL-E

### **OVERSPEED MONITORING**

Overspeed monitoring option for DC motors. This system, which can be overridden, enables the operator to monitor the minimum auxiliary power supply current in the event of cutting off the main DC power supply.



#### **RJ45 WIRED PLUG**

Combination of 2 RJ45 connectors connected together in the console. The side connector A is used to connect the network input, the front connector **B** is for the user's connection.



ref. CARJ45

#### **RJ45 PLUG (NOT WIRED)**



ref. SERJ45

#### **INVERTER SOCKET**



Ref. SE-UTS

Not wired. For U.P.S.

### MEASURED POWER SOCKET MODULE



ref. SEPCW

Output on power socket 2P+E with wattmeter direct display of consumed power.

Measuring apparatus: 10000 pts Maximum power: 3500W

Protection by circuit breaker on the front panel



## Electrotechnical benches

### Touchscreen-controlled station

A reliable station, compliant with laboratory safety standards (checked by APAVE and SOCOTEC). It consists of one or two lockable electrical cabinets (depending on the model), connected by 3 cross members including a foot rest, a 2000 x 750mm bench-top with stratified coating as standard and a source distribution console fitted with safety terminals for all loads and

This autonomous bench is fitted with voltage sources controlled by a touch screen. The 5.7-inch colour screen selects the voltage sources and displays information and safety messages such as Pb emergency stop activated or autotransformer not set to zero. A PLC with its Ethernet card manages the station and the connection to the computer network if several stations are used. A room equipped with several touchscreen-controlled stations has the advantage of being network wired from an Ethernet switch or a patch panel. In this way, the teacher can, from a single PC, lock and/or observe the controls on each bench.



### Electrical specifications, see electrotechnical benches **PAGE 27**

#### LOCKABLE COVER FOR CIRCUIT BREAKERS

Circuit breakers are placed behind a lockable transparent cover Restricted accessIP2X protection





#### FEATURES OF THE PLC/CONTROL **SECTION**

- 5.7-inch colour touch screen flush with the front of the console
- TWIDO PLC
- Ethernet interface



The teacher's PC screen supervising the benches in the room



The console touch screen managing the power sources

| 4000VA* |         | TOUCHSCRE | TOUCHSCREEN CONTROLLED OF 4KVA RATING |           |           |             |             |           |           |            |
|---------|---------|-----------|---------------------------------------|-----------|-----------|-------------|-------------|-----------|-----------|------------|
| Ref.    | Ref.    | DC SUPPLY | 3-PHASE                               | AUXILIARY | AUXILIARY | 3-PHASE     | 4 POWER     | RESISTIVE | INDUCTIVE | CAPACITIVE |
|         |         | 0-270V    | 0-450V                                | 0-250VDC  | 0-250VAC  | 3x400VAC    | SOCKETS     | LOAD      | LOAD      | LOAD       |
|         |         | 16A       | 8A                                    | 2.5A      | 2.5A      | 4 TERMINALS | 230V 2P + E | 4000W     | 4000VAR   | 4000VAR    |
|         |         | • •       | •                                     | • •       | •         | •           | •           | •         | •         | •          |
| BTO-40A | BTV-40A | X         | Х                                     | Х         | Х         | X           | X           | Х         | Х         | Х          |
| BTO-40B | BTV-40B | Х         | Х                                     | Х         | Х         | Х           | Х           | Х         | Х         |            |
| BTO-40C | BTV-40C | Х         | Х                                     | Х         | Х         | Х           | Х           | Х         |           |            |
| BTO-40D | BTV-40D | Х         | Х                                     | Х         | Х         | Х           | Х           |           |           |            |

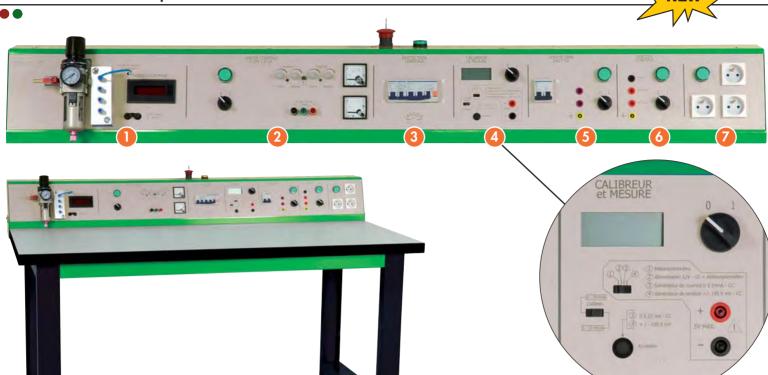
HARD-WEARING LAMP WITHOUT MAINTENANCE

INSULATED OUTPUT

LOADS INSIDE THE LEFT-HAND CABINET

## 4-20mA loop calibrator





This station provides all simulation and 4-20mA loop control possibilities for sensors, regulators, PLC inputs, etc. Compressed air is provided through 4mm quick sockets. A digital display indicates the pressure from 0 to 10,000mbar. This type of station can be easily customised. All types of electrical and mechanical modifications can be considered. Several options are possible.

ref. CAO-33

ref. CAV-33

#### Calibrator features table 4

|                       | Display                | Accuracy                      |  |
|-----------------------|------------------------|-------------------------------|--|
| Milliammeter          | 0 – 19.99 mA ± 0.01 mA | ± 0,25 % full scale + 1 Digit |  |
| Milliammetel          | 0 – 24 mA ± 0.1 mA     | ± 0,5 % full scale + 1 Digit  |  |
| 12V voltage generator | 0 – 19.99 mA ± 0.01 mA | ± 0,25 % full scale + 1 Digit |  |
| + Milliammeter        | 0 – 24 mA ± 0.1 mA     | ± 0,5 % full scale + 1 Digit  |  |
| Current generator     | 0 – 19.99 mA ± 0.01 mA | ± 0,25 % full scale + 1 Digit |  |
| + Milliammeter        | 0 – 24 mA ± 0.1 mA     | ± 0,5 % full scale + 1 Digit  |  |
| Voltage generator     | -199,9 mV to +199,9 mV | ± 0,25 % full scale + 1 Digit |  |
| + Milliammeter        | ± 0,1 mV               |                               |  |

#### Components and features of the station

- Workbench with laminated top 1500 x 750mm
- • Air feed system with digital pressure display from 0 to 10,000 mbar. A 4-20mA signal reflecting the pressure is provided instead of the jumper.
- 2 Variable output 0-30V/3A with current and voltage display and electronic auto-protection.
- 330mA residual current circuit breaker Type A + Emergency stop
- @Calibrator / monitor / loop simulator
  - Milliammeter
  - 12V generator + milliammeter
  - 0 to 24mA DC current generator + milliammeter
  - +/- 199.9mV voltage generator + milliammeter
- \$24V 50Hz 5A output protected by circuit breaker
- **6**12 and 24VDC outputs with electronic auto-protection
- **3** 2P+E sockets

Maintenance-free LED indicator lights

### **RJ45 PLUG (NOT WIRED)**

ref. SERJ45



#### **RJ45 WIRED PLUG**



Combination of 2 RJ45 connectors connected together in the console. The side connector A is used to connect the network input, the front connector **B** is for the user's connection.

ref. CARJ45

## Electrotechnical benches

## Supplies and loads for renovation project

#### STAND ALONE DC & AC POWER SUPPLY

This new technical leg design offers you the option to create a new station or to renovate existing tables. Thanks to its compactness it can act both as a table leg and as an item next to a table. This AXG\*\* (\* represents power) product is completely autonomous. With a simple three-phase mains input + neutral + earth, it can provide all the power supply combinations provided in the table below. Supplied assembled and ready to be connected to 3-phase 400V from mains.

Height of attachment under bench-top: 720 to 830mm

Lenath: 665mm

Total height: 1050mm (including console).

Maximum width: 250mm

#### MAIN DC SUPPLY

0 - 270V variable and insulated from the mains by an insulated transformer as specified by international safety standards for the use of cirect currents. The whole unit is protected against overloads and short circuits. Rectification is provided by a generously over-specified Graetz bridge (ripple rate 4%). Voltmeter and ammeter displays. A magneto-thermal circuit breaker protects this output. A contactor with a control button gives command start/stop functions, on condition that the autotransformer output is at OV. An everlasting indicator light shows that the unit is powered up.



#### VARIABLE 3-PHASE SUPPLY

Variable by autotransformer and protected against overloading and short circuits. The voltage range is 0-430V between phases (450V for the 4000VA model). A thermal magnetic circuit breaker protects this output. A push button contact performs start/stop switching on condition that the autotransformer is at 0 voltage. An indicator light shows that the unit is powered up.

Main supplies 1 & 2 can't work simultaneously



### 3 DC AUXILIARY SUPPLY

0 - 250V variable and insulated from the mains by an insulated transformer as specified by international safety standards for the use of direct currents. The whole unit is protected against overloads and short circuits. Voltmeter and ammeter displays. An On/Off button control. An indicator light shows that the unit is powered up.



#### SINGLE-PHASE AUXILIARY SUPPLY

0-250V variable by single phase autotransformer protected against overloading and short circuits. Voltmeter and ammeter displays. An On/Off button control. An indicator light shows that the unit is powered up.

Auxillary supplies 3 & 4 can't work simultaneously



### 3-PHASE SUPPLY (3 X 400VAC FIXED)

On four terminals, protected, with switch and On/Off button control. An indicator light shows that the unit is powered up.



#### 6 4 POWER SOCKETS 230V (2P+E)

4 x power sockets 230V (2P+E), protected, with indicator lights.



### EMERGENCY STOP BUTTON

Key controlled in the centre of the console (can be mounted in alternative positions). It cuts out a single bank without affecting the others. Positive security stop.



#### 8 PUSH BUTTON

Start/Stop with indicator providing start-up with "memory" function. An indicator light shows that the unit is powered up.





Lockable cover for circuit breakers on the rear door

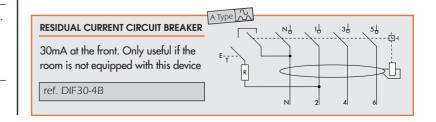
Circuit breakers are placed behind a lockable transparent cover. Restricted access IP2X protection.



| Ref                    | AXG-40      | AXG-20      | AXG-10      |
|------------------------|-------------|-------------|-------------|
| Rating                 | 4000VA      | 2000VA      | 1000VA      |
| ▼ ▼DC SUPPLY 0-270V    | 16A         | 8A          | 7A          |
| ▼ 3-PHASE variable     | 0-450V/8A   | 0-430V/5A   | 0-430V/5A   |
| ▼ ▼ AUXILIARY 0-250VDC | 2.5A        | 2.5A        | 2.5A        |
| ▼ AUXILIARY 0-250VAC   | 2.5A        | 2.5A        | 2.5A        |
| ▼ 3-PHASE MAINS        | 4 terminals | 4 terminals | 4 terminals |
| ▼ 3-MASE WAINS         | 3x400VAC    | 3x400VAC    | 3x400VAC    |
| ▼ 4 SOCKETS MAINS      | 230V 2P+E   | 230V 2P+E   | 230V 2P+E   |

▼with hard-wearing lamp without maintenance

▼ insulated from mains



#### **COMPLETE RESISTIVE LOAD UNIT**



This new design enables you to create a new station or to renovate existing benches. Thanks to its compactness it can act both as a table leg and as an item next to a table. This ARG\*\* (\*\*represents power) reference product requires no power supply. Thanks to its smart design, this charging unit does not require forced ventilation. It contains resistors on ceramic tubes (protected from oxidation by a coating).

The 6 switches (snap switches) vary the charge in steps of 5%. These controls are placed on the console with inputs terminals and coupling jumpers (for a use in 240VAC single phase and 240VDC, 3-phase 240VAC or 3-phase

Available option: charge in steps of 2.5% in the 4kW version (please

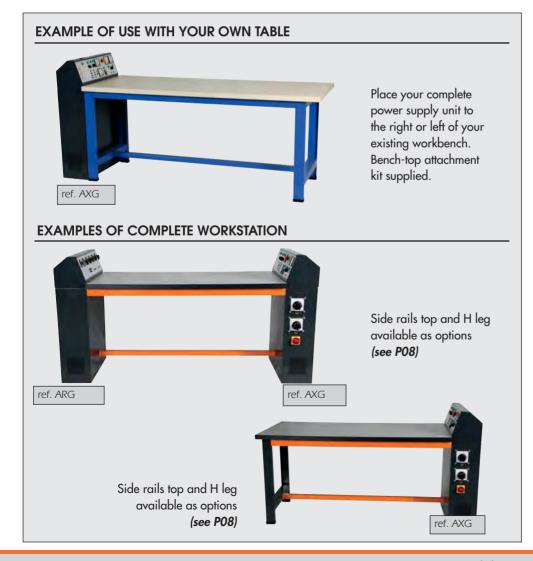
Height of attachment under bench-top: adjustable from 720 to 830mm

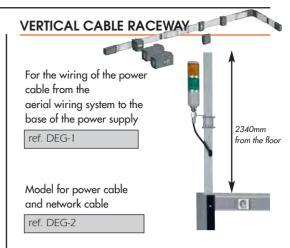
Length: 665mm

Total height: 1050mm (including console).

Maximum width: 250mm

| Ref    | ARG-40 | ARG-20 | ARG-10 |
|--------|--------|--------|--------|
| Rating | 4000VA | 2000VA | 500VA  |





#### 360° LIGHT SIGNAL TOWERS



Beacon with 3 light indicators: red, yellow

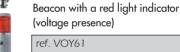
and green



ref. VOY181



Beacon with 2 light indicators: red and green



(voltage presence)

### **COLOURS AVAILABLE UPON REQUEST**

white - orange - red - green - blue



HARD-WEARING LED LAMPS

