

**NEW**



***Portrol 400***  
**Portable electric  
equipment *for*  
controlled tube rolling**





Green ● button  
"START"

Red ■ button  
"STOP"  
Hold to run



Black ● button  
Rotation reversal

Reverses motor rotation, thus releasing the mandrel once expansion is completed.

Magnet mounted, remote,  
emergency stop button



Patent  
Pending



## Port 400

Portable electronic controller  
for tube expansion

- Expansion torque selection
- Automatic stop of motor rotation when the selected torque is attained
- Expansion torque display
- Manual reversal of rotation
- Remote controls
- No-load rolling motor resetting



## Portrol 400

Portable electric equipment for the **controlled expansion** of tubes O.D ranges between **1/2"** and **1.1/2"** (between 12,7 and 38,1 mm)

Repeatability  $\pm 5\%$   
High quality  
Long life  
Reliable  
Robust

### TPB-2A

Balancer for weights ranging between 8 and 10 Kg (between 17.6 and 22.0 Lb)



NO VIBRATION

### F/314HS

Coupling with female/female double quick coupling specifically for high speeds

### PR-1000

Portable electrical tube expander 400 V Three-phases complying conforming to the European Standards

The **process of tube expansion** in tube sheets using the traditional tube expander must meet **quality, productivity and repeatability requirements** which are essential to successfully pass the strict **pressure tightness tests** the tube sheets undergo once finished.

To **start and control the operation of the tube expander** Maus Italia offers a **range of fully motorised control systems and accessories**, including three main families:

- **Portrol** (portable)
- **Quadrol** (semi-automatic)
- **Automation** (automatic)

Based on our experience, we have advocated control of the torque, measured on the expander axis, over dimensional control. Control of the torque can compensate for parameter variability, thus assuring reliability, repeatability and productivity to heat exchanger manufacturers.

**Portrol 400**, the latest product of the **Portrol** family, features a particularly lightweight controller and rolling motor producing very high torque, especially the most powerful model. A good compromise between quality and price. Specially designed for quality maintenance operations or for small tube sheet production lots.

Maus Italia has designed and manufactured the first fully portable three-phase 400 Volt tube expander, meeting the strict European standards.

Three-phase  
400 V system

Portable  
Inexpensive  
Easy to handle

**Portrol 400** consists of:

- **Port 400** controller
- **PR-1000** series electric rolling motor
- **F314HS-3/8"** quick coupling for high speeds
- **TPB-2A** balancer
- **Porter basic** (optional) supporting the electric motor with vertical adjustment

**PR-1000**



Class II  
Double insulation



According to the European technical standards on portable electric equipment safety:  
EN 60745-1 • EN 60745-1/A1 • EN 60745-2-1 • EN 60745-2-2

## Port 400

Supply			Port 400
Voltage - Phase	Max Ampere Volt - Ph    A		380/415 - 3    2,5
Frequency	Hz		50/60
Input power	Kw / A		1,0
Dimensions			
Length (depth)	<b>A</b> mm (inches)		331 (13.0)
Width (with handle)	<b>B</b> mm (inches)		365 (14.4)
Height	<b>C</b> mm (inches)		192 (7.6)
Weight	Kg (Lb)		13 (28)
Protection degree	<b>IP</b>		32
Colours	RAL		7030 - 7035



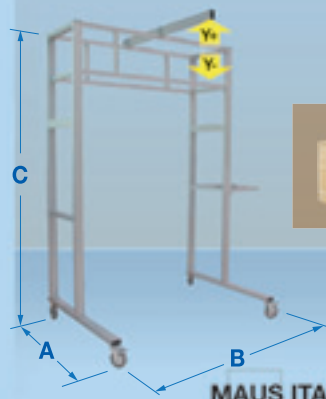
## PR-1000

Supply			PR-1000-4	PR-1000-5	PR-1000-7	PR-1000-10	PR-1000-15
Motor voltage	<input type="checkbox"/> Class II Double insulation Volt - Ph		400 - 3	400 - 3	400 - 3	400 - 3	400 - 3
Motor power	Kw		1,0	1,0	1,0	1,0	1,0
Working capacity							
Speed	giri/min (R.P.M)		750	600	430	300	200
Max torque	Nm (Ft Lb)		12(8.85)	15(11.06)	22(16.22)	30(22.12)	40(29.50)
> Max tube Ø (outer) <b>Ferrous</b>	mm (inches)		12,7 (1/2")	19,0 (3/4")	22,2 (7/8")	25,4 (1")	31,8 (1.1/4")
> Max tube Ø (outer) <b>Non ferrous</b>	mm (inches)		19,0 (3/4")	22,2 (7/8")	31,8 (1.1/4")	38,1 (1.1/2")	44,4 (1.3/4")
Supplied coupling	Code		F314 HS-3/8"	F314 HS-3/8"	F314 HS-3/8"	F314 HS-3/8"	F313-1/2"
Dimensions							
Length	<b>A</b> mm (inches)		480,0 (18.9)	480,0 (18.9)	480,0 (18.9)	480,0 (18.9)	505,0 (19.9)
Width	<b>B</b> mm (inches)		450,0 (17.7)	450,0 (17.7)	450,0 (17.7)	450,0 (17.7)	450,0 (17.7)
Height	<b>C</b> mm (inches)		115,0 (4.5)	115,0 (4.5)	115,0 (4.5)	115,0 (4.5)	115,0 (4.5)
Weight	Kg (Lb)		9,5 (21)	9,5 (21)	9,5 (21)	9,5 (21)	10,0 (22)
Protection degree	<b>IP</b>		32	32	32	32	32
Colours	RAL		9011	9011	9011	9011	9011

- With connection cable 5 m (16,4 Ft)

## Porterbasic

Work axes			Porterbasic
Y axis	Motion		manual sliding
Working capacity			
Supported weight	Kg (Lb)		40 (88)
Vertical stroke	<b>Y</b> mm (inches)		1700 (67)
Dimensions			
Length (depth)	<b>A</b> mm (inches)		1200 (47.2)
Width	<b>B</b> mm (inches)		1600 (63.0)
Height	<b>C</b> mm (inches)		2600 (102.3)
Weight	Kg (Lb)		70 (155)
Colours			Anodised aluminium



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