

Low-voltage electrical mobile stations for semi-automatic controlled expansion of tubes whose diameter ranges between **3/8"** and **2.1/2"** (between 9,5 and 63,5 mm).

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 in the final testing stage.

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:

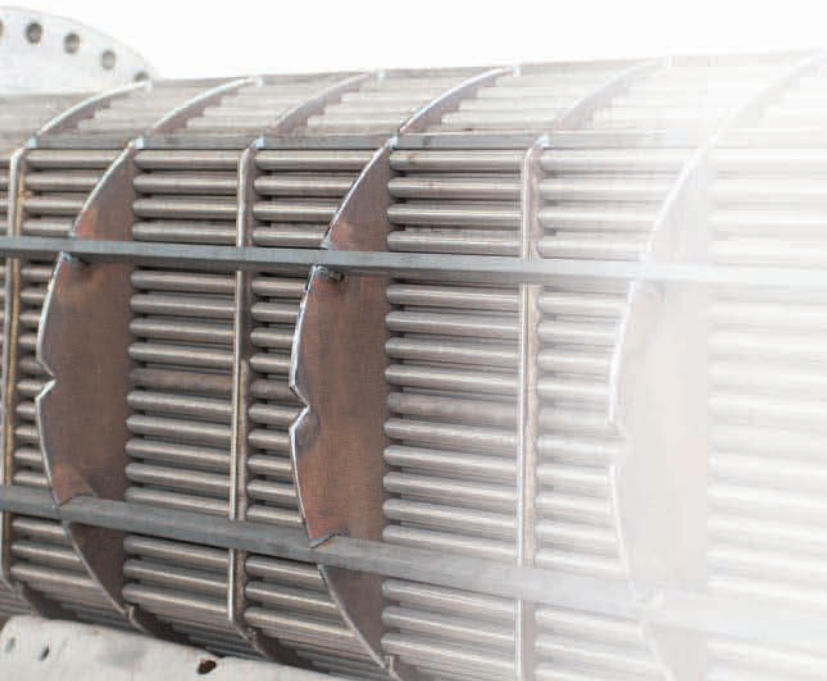
- **Portrol** (portable)
- **Quadrol** (semi-automatic)
- **Automation** (automatic)

Based on our experience we have selected the **control of the torque measured on the expander axis** as the most appropriate reference technology.

Unlike pure dimensional control, in fact, the torque control **can make up for parameter variability** (e.g. *tolerances on sheet hole diameter and tube thickness*), assuring **reliability, repeatability and productivity** to heat exchanger manufacturers.

Thanks to its fifty-year experience in the industry, Maus Italia, a company which always at the cutting edge of research, has designed and manufactured the new electrical stations for semi-automatic tube expansion **Quadrol 90x**, deriving from the **Quadrol** family, whose innovative solutions allow tube expansion on an industrial scale.

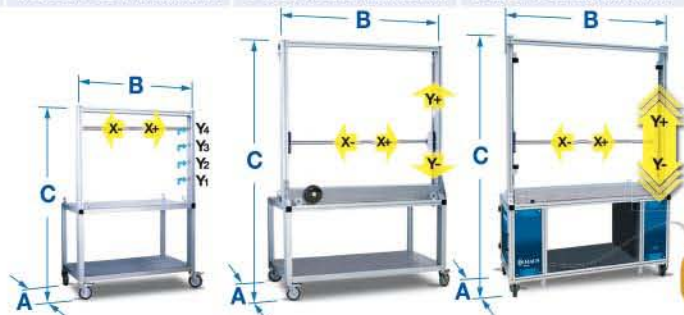
Every component has been redesigned and upgraded, using the most modern and up-to-date technologies, and above all analysing the on-going feedback from our demanding customers; the result is a durable, heavy-duty product for heat exchanger manufacturing workshops.



Technical specifications of the **Porter** trolleys and of the **F90V5x** controller

Porter

Work axes			Porter standard	Porter plus	Porter executive
X axis	Motion		manual sliding	manual sliding	manual sliding
Y axis	Motion		fixed positions	servo manual	motor-driven
Working capacity					
Supported torque	Nm (Ft Lb)		250 (184)	250 (184)	250 (184)
Supported weight	Kg (Lb)		150 (330)	150 (330)	150 (330)
Horizontal stroke	X	mm (inches)	600 (23)	1000 (39)	1000 (39)
Vertical stroke	Y	mm (inches)	4 step 480 (19)	650 (25)	650 (25)
Dimensions					
Length (depth)	A	mm (Ft)	500 (1.7)	700 (2.3)	700 (2.3)
Width	B	mm (Ft)	900 (3.0)	1400 (4.6)	1400 (4.6)
Height	C	mm (Ft)	1510 (5.0)	2030 (6.7)	2030 (6.70)
Weight		Kg (Lb)	40 (89)	81 (179)	113 (250)
Colours			Anodised aluminium	Anodised aluminium	Anodised aluminium



F90V5x

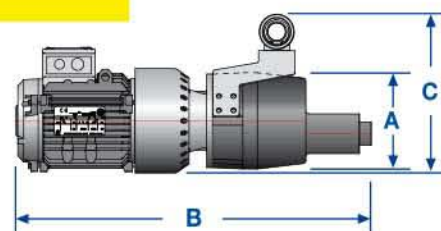
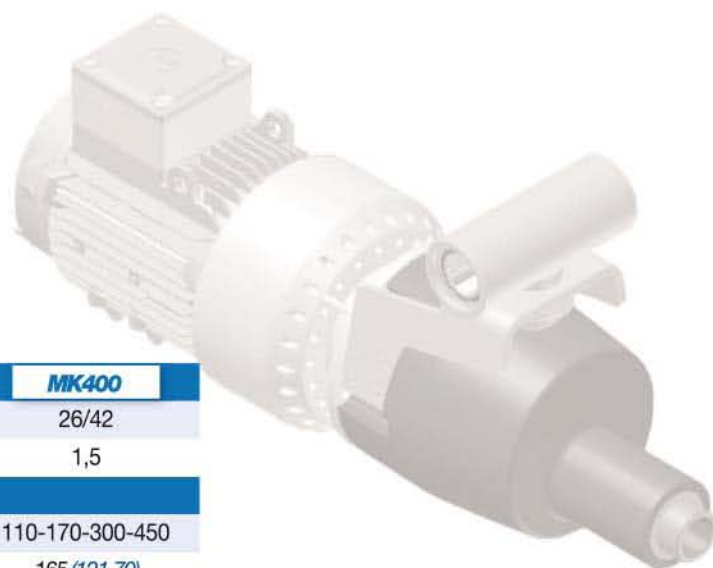
Supply			F90V5x
* Voltage	V - Ph		230/400 - 3
Frequency	Hz		50/60
Installed power	KW		1,6
Motor voltage	V		26 / 42
Pedal set voltage	V		24
Dimensions			
Length (depth)	A	mm (Ft)	410 (1.35)
Width	B	mm (Ft)	760 (2.49)
Height	C	mm (Ft)	405 (1.33)
Weight		Kg (Lb)	65 (144)
Degree of protection	IP		54
Colours	RAL		7030 - 7035



Technical specifications of the **MK** motors and of the **F308HS** telescopic shaft

MK

Supply		MK800	MK400
Motor voltage	V	26/42	26/42
Motor power	KW	0,8	1,5
Working capacity			
Speed	giri/min (R.P.M)	200-300-540-800	110-170-300-450
Max torque	Nm (Ft Lb)	55 (40.57)	165 (121.70)
Min tube Ø	mm (inches)	9,52 (3/8)	15,87 (5/8)
Max tube Ø	mm (inches)	38,10 (1.1/2)	63,50 (2.1/2)
Recommended telescopic shaft	Cod.	F308HS-2	F308HS-3
Recommended couplings	Cod.	F314HS	F317HS
Adapter	C.M.	3	3
Dimensions			
Gearbox Ø	A mm (Ft)	180,0 (0.59)	180,0 (0.59)
Width	B mm (Ft)	608,5 (1.99)	608,5 (1.99)
Height	C mm (Ft)	272,0 (0.89)	272,0 (0.89)
Weight	Kg (Lb)	30,0 (67)	31,0 (69)
Colours	IP	55	55
Colours	RAL	9005 - 7030	9005 - 7030



F308HS

F308HS		Handle A		Telescopic range B		Extensibility		Max. torque		Weight		Ø M
Model	N	mm	inches	mm	inches	mm	inches	Nm	Lb Ft	Kg	Lb	mm
F308HS-2B	3	205	8.1	650÷1060	25.6÷41.7	410	16.1	70	51	5,4	11.90	12
F308HS-3	3	225	8.9	650÷1060	25.6÷41.7	410	16.1	180	132	7,9	17.41	18
F308HS-3L	3	225	8.9	850÷1460	33.5÷57.5	610	24.0	180	132	8,9	19.62	18



* Version with extra extensibility for use with mandrels whose length exceeds 500mm (19,7")

Technical specifications of the **F314HS** and **F317HS** couplings

patent



F314HS		Weight	
Model	inches	Kg	Lb
F314HS-1/4"	1/4	0,18	0.40
F314HS-3/8"	3/8	0,21	0.46



F317HS		Weight	
Model	inches	Kg	Lb
F317HS-3/8"	3/8	0,29	0.64
F317HS-1/2"	1/2	0,31	0.68
F317HS-3/4"	3/4	0,38	0.84

- For any further items please refer to the "**Accessories**" catalogue

