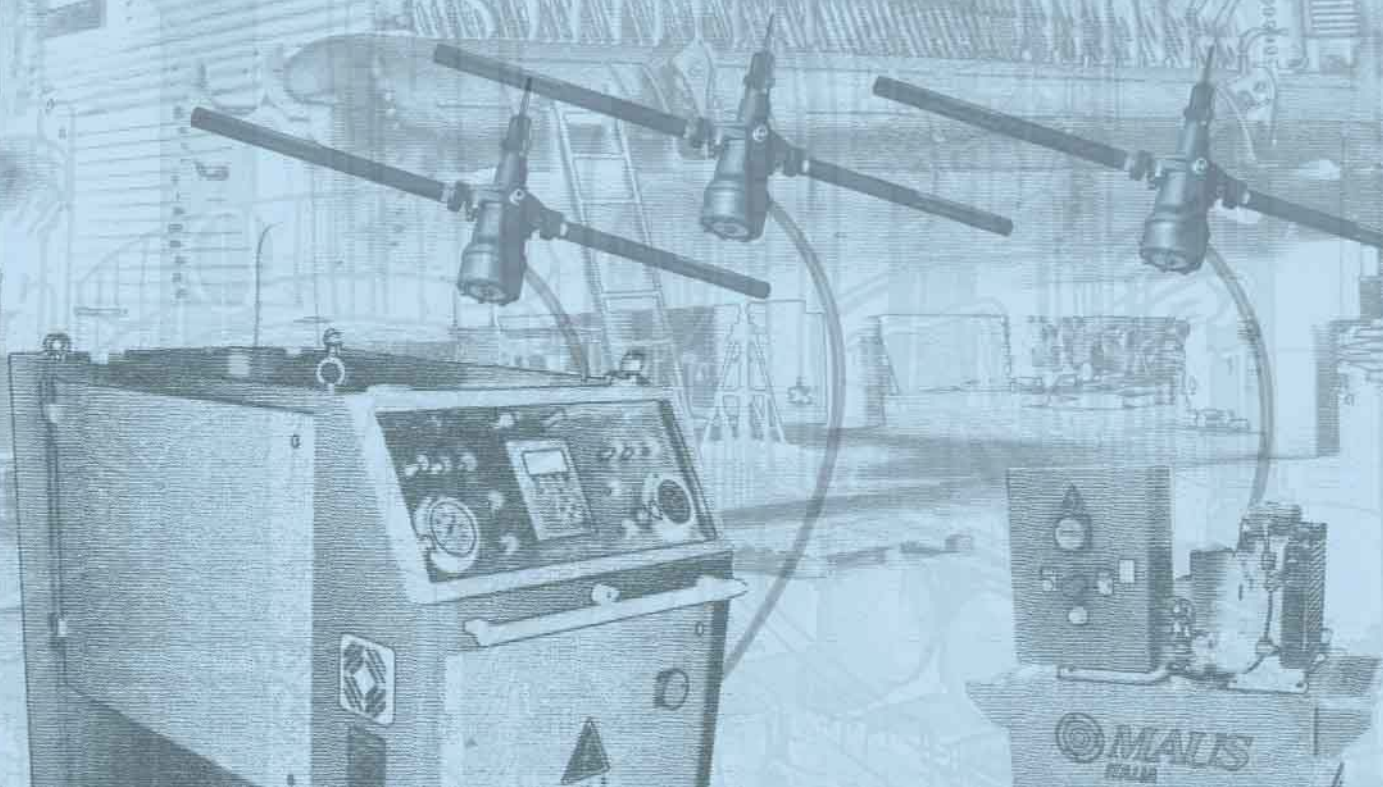


**NEW**

 **MAUS**  
ITALIA

**Hydrol**  
**Tube boiler and furnace**  
**rolling equipment**



 **MAUS**  
ITALIA

*High productivity*

*High power with lightweight heads*

*Rugged construction*

*Suitable for difficult access areas*

*Easy handling*

*Excellent tube rolling quality*

*Durability and reliability*

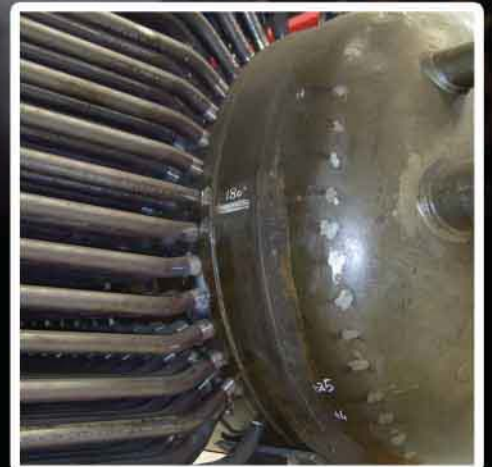
*Minimized maintenance*

*Noiseless*

*Long life lasting*

**Highest Productivity**  
Mod. 40.2 with No. 2 Tube Rolling Heads  
performs up to 240 expansions/hour

The easy tube expansion  
inside drums



# Hydrol Tube boiler and furnace rolling equipment

## Hydrol

Hydraulic tube rolling equipment for expansion of tubes **O.D. from 5/8" up to 8"** with programmed continuous cycle and adjustable speed (*Mod. 40.2*)

**Hydrol** advantage is that, compared to the conventional tube boiler rolling equipment, the use of small and light portable hydraulic tube rolling heads, particularly suitable for working in narrow spaces (i.e. inside boiler drums), provides for an high power.

The **Hydrol** equipment is composed in two parts: **hydraulic unit** and **portable heads**. Always responsive to the market demands, Maus Italia has designed and produced **two model of hydraulic unit**:

### Hydrol 40.2

Professional model, thanks to the capability of handling two independent portable tube rolling heads, achieve top level of expansion quality and productivity.

### Hydrol 20.1

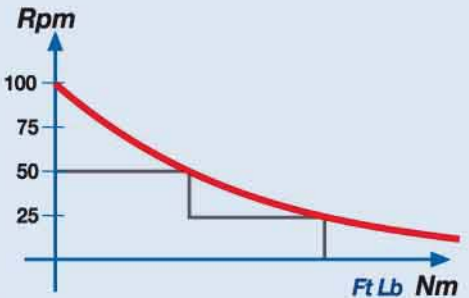
For low budgets and for small quantity of expansions.

### Hydrol HM

Different **HM** hydraulic tube rolling heads sizes are available to cover main expansion technical requirements, in accordance with tube dimensions and required expansion characteristics.

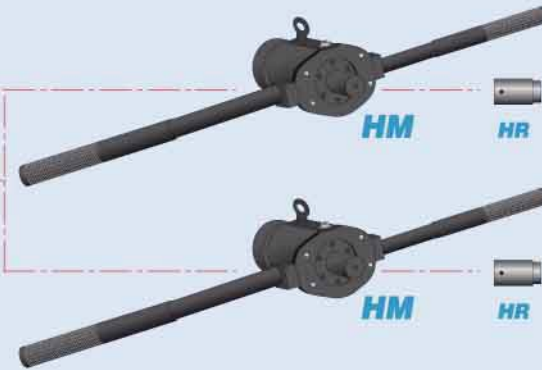
### Hydrol HR

Fixed adapters for the connection to the tube expander.



Hydraulic unit

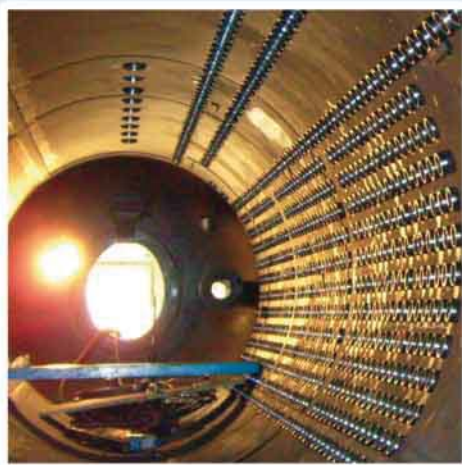
Portable heads



HR

HR

HR



high  
quality

## Hydrol 40.2

Hydraulic double heads tube rolling equipment with digital electronic torque control

**Hydrol 40.2** hydraulic unit allows to work simultaneously with two heads, each one independent for the other. This machine is recommended in case of repetitive jobs and where precision, power and speed are requested. The hydraulic twin hoses are comfortably wrapped on the two wheelers inside the unit. The expansion force is controlled by a microprocessor, included in the hydraulic unit.

with simultaneously double heads

The equipment is provided with:

- 1 **Hydrol 40.2** control unit
- 2 **HM** hydraulic rolling heads with 2 **HR** fixed adapters
- 2 high pressure **HTH/13** hydraulic twin hoses, 18 m (59.0 Ft)
- 2 self winding hoses wheels
- 2 manual or pedal remote control unit 20 m (65.6 Ft) long.
- Air/Oil radiator
- Oil heater

### Technical data:

- Supply voltage 220/400 Vac - 50/60 Hz
- Power 11 Kw (5,5 Kw x 2)
- Tank capacity 200 Lt (53 GalUS)
- Flow rate 42 Lt x 2 (11 GalUS x 2)
- Max pressure 200 Bar (2900 Psi)
- Dim. 880 x 1540 x 1400 mm (35" x 61" x 56")
- Weight without hydraulic oil 550 Kg (1210 Lb)
- Weight with hydraulic oil 730 Kg (1610 Lb)
- Level of protection IP 55

## Hydrol 20.1

Hydraulic single head tube rolling equipment with electric torque control

**Hydrol 20.1** hydraulic unit, supplied with expansion setting control, has compact dimensions, for easy transport and movement on site. Torque value is regulated by an adjusting pressure setting on the hydraulic unit.

The equipment is provided with:

- 1 **Hydrol 20.1** control unit
- 1 **HM** hydraulic rolling head with 1 **HR** fixed adapters
- 2 high pressure **HS/10** hydraulic hoses, 10 m (32.8 Ft)
- 1 manual or pedal remote control unit 10 m (32.8 Ft) long.
- Air/Oil radiator

### Technical data:

- Supply voltage 220/400 Vac 50/60 Hz
- Power 4,3 Kw
- Tank capacity 65 Lt (17 GalUS)
- Flow rate 20 Lt (5 GalUS)
- Max pressure 200 Bar (2900 Psi)
- Dim. 850 x 450 x 880 mm (34" x 18" x 35")
- Weight without hydraulic oil 110 Kg (240 Lb)
- Weight with hydraulic oil 168 Kg (370 Lb)
- Level of protection IP 55

Electric Box

Electric motor

Heat exchanger

Rolling torque adjustment

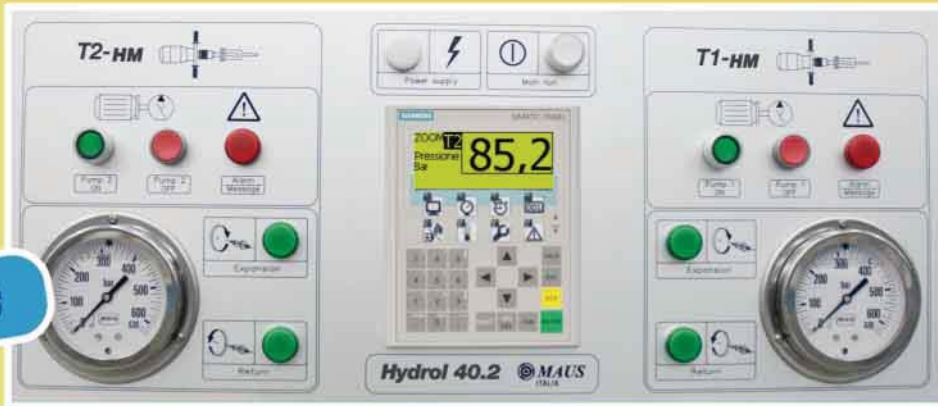
Solenoid valve: ahead / back / stop

Oil level indicator

Pressure gauge



# Hydrol Tube boiler and furnace rolling equipment



2 tube rolling heads, operated by two independent thermostabilized hydraulic oil circuits, assure the repeatability and quality of tube expansion.

## Hydrol 40.2 Pro

Continuous cycle digital controller

### Hydrol 40.2 Pro

controller is the brain of the system. It is friendly-user, with LCD screen and dedicated software; it is protected by a solid metal casing.

It provides for automatic tolerance compensation both for the tube-sheet holes diameter and tube thickness. The result is an uniform seal for all tubes at the heat exchanger operating pressure.

- Programmed continuous cycle
  - Pressure
  - Cycle times
  - Oil temperature
  - Alarms
  - Messages
  - Working status (manual, semi-automatic, automatic)
- Tolerance repeatability +/-1%
- Selection of desired language
- Instantaneous visualisation of:
  - Rolling operation counting
  - Motor pressure

## 2 Heads

T1-HM  
T2-HM

- Pump alarm indicator light
- Pump start push-button
- Pump stop push-button
- Pressure gauges
- Clockwise rotation indicator
- Anti-clockwise rotation indicator



2 hoses winding wheels

Improved easy-handling and hoses endurance

Emergency push button

Start push button

Speed Variator

Console



Fan cooler radiator

Cartridge for oil filter  
connectors for  
MC/100 or PE/900

2 Electric motors

Oil Plug

Oil level indicator

1/2" twin hose (T2-HM)

1/2" twin hose (T1-HM)

**HM**

# Hydraulic tube rolling heads

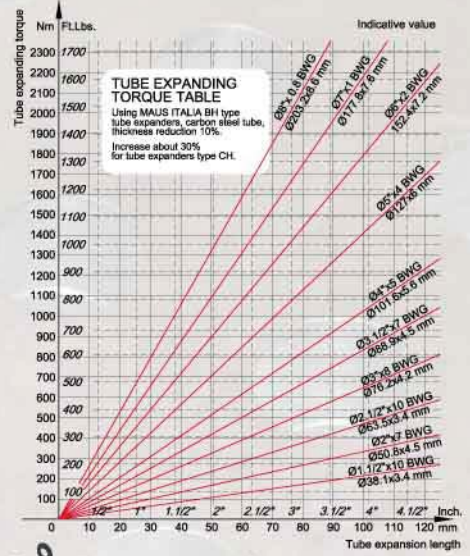
Different **HM** hydraulic tube rolling heads sizes are available to cover main expansion technical requirements, in accordance with tube dimensions and required expansion characteristics.

**Suggested tube expanders**  
(see relative catalogue)

**BH**

**CH**

**R/41**



Tube O.D.

**HM**

Max torque  
2900 psi max  
200 bar max

RPM

Hydrol 20.1 Hydrol 40.2

Dim

Weight

Drive shank

**HR**

| Tube O.D.    |                 | Cod.            | Max torque |       | RPM       |           | Dim      |             | Weight |      | Drive shank |        | Cod.         |
|--------------|-----------------|-----------------|------------|-------|-----------|-----------|----------|-------------|--------|------|-------------|--------|--------------|
| mm           | inches          |                 | Nm         | Ft Lb | Min ÷ Max | Min ÷ Max | mm       | inches      | Kg     | Lb   | mm          | inches |              |
| 15,9 ÷ 25,4  | 5/8" ÷ 1"       | <b>HM-32</b>    | 64         | 47    | 320 ÷ 640 | 160 ÷ 800 | 150x800  | 5.9"x31.5"  | 5,0    | 11,0 | 16,0        | 0.63   | <b>HR-16</b> |
| 25,4 ÷ 31,8  | 1" ÷ 1.1/4"     | <b>HM-50</b>    | 150        | 110   | 190 ÷ 380 | 100 ÷ 800 | 200x1020 | 7.9"x40.2"  | 9,5    | 21,0 | 25,0        | 0,98   | <b>HR-25</b> |
| 25,4 ÷ 38,1  | 1" ÷ 1.1/2"     | <b>HM-80</b>    | 220        | 160   | 125 ÷ 250 | 60 ÷ 510  | 205x1020 | 8.1"x40.2"  | 9,7    | 21,4 |             |        |              |
| 31,8 ÷ 50,8  | 1.1/4" ÷ 2"     | <b>HM-100</b>   | 280        | 210   | 100 ÷ 200 | 50 ÷ 410  | 210x1020 | 8.3"x40.2"  | 9,8    | 21,6 | 32,0        | 1,26   | <b>HR-32</b> |
| 31,8 ÷ 57,1  | 1.1/4" ÷ 2.1/4" | <b>HM-125</b>   | 340        | 250   | 80 ÷ 160  | 40 ÷ 320  | 215x1020 | 8.5"x40.2"  | 10,0   | 22,0 |             |        |              |
| 44,4 ÷ 63,5  | 1.3/4" ÷ 2.1/2" | <b>HM-200</b>   | 500        | 370   | 50 ÷ 100  | 25 ÷ 200  | 240x1020 | 9.4"x40.2"  | 11,5   | 25,4 | 40,0        | 1,57   | <b>HR-40</b> |
| 50,8 ÷ 76,2  | 2" ÷ 3"         | <b>HM-315</b>   | 690        | 510   | 32 ÷ 64   | 15 ÷ 130  | 260x1020 | 10.2"x40.2" | 13,0   | 28,7 |             |        |              |
| 63,5 ÷ 101,6 | 2.1/2" ÷ 4"     | <b>HM-350</b>   | 820        | 610   | 30 ÷ 60   | 12 ÷ 110  | 270x1020 | 10.6"x40.2" | 15,5   | 34,0 | 50,0        | 1,97"  | <b>HR-50</b> |
| 76,2 ÷ 114,3 | 3" ÷ 4.1/2"     | <b>HM-400</b>   | 1030       | 760   | 25 ÷ 50   | 10 ÷ 100  | 275x1020 | 10.8"x40.2" | 16,3   | 36,0 |             |        |              |
| 141,3        | 5.563"          | <b>HM-450 *</b> | 1200       | 880   | 22 ÷ 44   | 15 ÷ 90   | 285x1020 | 11.2"x40.2" | 27,0   | 59,0 |             |        |              |
| 168,3        | 6.625"          | <b>HM-500 *</b> | 1520       | 1120  | 19 ÷ 38   | 13 ÷ 80   | 400x1020 | 15.7"x40.2" | 30,0   | 66,0 |             |        |              |
| 219,1        | 8.625"          | <b>HM-800 *</b> | 2340       | 1730  | 12 ÷ 24   | 9 ÷ 52    | 425x1020 | 16.7"x40.2" | 42,0   | 93,0 |             |        |              |

**Suitable for cracking furnace**  
see **Tube expanders F/500**



# Hydrol

## Tube boiler and furnace rolling equipment

### HR

#### Adapters

The fixed adapters **HR** have cylindrical female shank for connection to the hydraulic heads model **HM**, and a female square in mm or inches for the connection to the tube expander.



Sample codes for ordering **HR** adapters:

**HR-25-##** +  $\varnothing F$  18 mm → **HR-25-18**  
**HR-32-##** +  $\varnothing F$  3/4" → **HR-32-3/4"**

| <b>HR</b>       | $\varnothing F$                             | <b>HM Head</b>       | <b>Drive shank</b> |
|-----------------|---|----------------------|--------------------|
| Cod.            | mm<br>inches                                | Cod.                 | mm<br>inches       |
| <b>HR-16-##</b> | 9-12<br>3/8"-1/2"                           | <b>HM32</b>          | 16,0 0.63          |
| <b>HR-25-##</b> | 9-12-14-16-18-20-22-24<br>3/8"-1/2"-3/4"-1" | <b>HM50 ÷ HM125</b>  | 25,0 0.98          |
| <b>HR-32-##</b> | 9-12-14-16-18-20-22-24<br>3/8"-1/2"-3/4"-1" | <b>HM200 ÷ HM400</b> | 32,0 1.26          |
| <b>HR-40-##</b> | On request                                  | <b>HM450 - HM500</b> | 40,0 1.57          |
| <b>HR-50-##</b> | On request                                  | <b>HM800</b>         | 50,0 1.97"         |

### HS/10

#### Hydrol 20.1 hydraulic hose

3/8" hydraulic hose for connecting **Hydrol 20.1** unit to the **HM** hydraulic head, length 10 m (32.8 Ft), with quick fittings.



Other hose lengths 15 or 20 m (49.2 Ft or 65.6 Ft) on request.

### HTH/13

#### Hydrol 40.2 twin hydraulic hose

1/2" twin hydraulic hoses for connecting **Hydrol 40.2** unit to the **HM** hydraulic head, length 18 m (59.0 Ft) with quick fittings. Other hose lengths on request.

Two self-winding hoses wheels, complete with blocking device for granting the operator an easy and fast hose release and handling.



Quick fitting to the motor

### OIL-H68

#### Hydraulic oil for Hydrol 40.2

### OIL-H46

#### Hydraulic oil for Hydrol 20.1



Available in can of 30 Lt (7.9 GalUS)

### MC/100

#### Remote control (standard supply)

The **Hydrol** unit is inclusive of one (for **Hydrol 20.1**) or two (for **Hydrol 40.2**) remote controls (suitable for small or difficult reachable places) with three-push buttons for **start/reverse/emergency**. Standard electric cable is: 10 m (32.8 Ft) for **Hydrol 20.1**, 20 m (65.6 Ft) for **Hydrol 40.2**. Other lengths are available on request.



### PE/900

#### Pedal switch remote control (optional)

The **Hydrol** unit can be supplied also with one (for **Hydrol 20.1**) or two (for **Hydrol 40.2**) pedal switch remote controls with three-foot push buttons for **start/reverse/emergency**. Standard electric cable is 10 m (32.8 Ft) for **Hydrol 20.1**, 20 m (65.6 Ft) for **Hydrol 40.2**. Other lengths are available on request.

