



Fig. 7

these solutions require pre-treatment of affected surfaces to remove surface rust as well as the application of a primer before they can be used. "Chelade" (Fig. 7) is a water-based polymeric rust converter which causes no damage to metal surfaces and eliminates the need to remove rust prior to application. The product can be painted directly onto surfaces without pre-treatment as it encapsulates and dissolves rust, converting it into a heavy-duty primer. This massively reduces the surface preparation time maintenance engineers need to invest in rust management. After applying, maintenance engineers can safely paint directly on the surface, as "Chelade" is compatible with most paints. It is ideal for use on equipment, storage tanks, vehicles and walkways where the application temperature is above 10°C. This makes it suitable to businesses operating in the automot-

ive, construction, manufacturing and transport sectors among many others. (NCH Europe, NCH House, Springvale Ave, Wolverhampton, Bilston WV14 0QL/UK; www.ncheurope.com)

### Welding stainless-steel pipe elbows

"HX" stands for heat exchanger. The company has improved its weld head even further and has extended it into a series: At the push of a button the "HX 16P" (Fig. 8, Photo: Orbitalum Tools GmbH) and "HX 22P" clamp themselves on the pipe by means of a patented pneumatic clamping mechanism. This makes it possible for the HVAC (Heating Ventilation Air Conditioning) industry to change over more easily from traditional heat exchangers made of copper to stainless steel. Thanks to its outer diameter of only 60 mm, a pipe spacing of only 30 mm is sufficient for the "HX 16" for positioning and clamping at the push of a button. New users speak of an increase in productivity of six-fold according to the provider. Thus it is possible to accelerate the procedure of aligning the weld head and clamping the head by 10 to 15 sec per welding cycle. About 1.5 min pass per working cycle at a pipe with 16 mm outer dimension and 0.5 mm wall thickness: Clamping, establishment of the inert gas atmosphere, welding, cooling down in the argon atmosphere, which prevents annealing colouring of the weld seam. In the past the operator had to support/hold the weld head by hand during the welding process. Thanks to the pneumatic clamping the head holds



Fig. 8

its position at the pipe elbow by itself. This makes it possible for a less experienced operator to produce welds with up to three weld heads (systems) at the same time per cycle. A further plus for the "HX 16P" orbital weld head (pipe outer diameters 15 to 16.8 mm) and for its big brother "HX 22P" (pipe outer diameters 19 to 22 mm) is the closed welding chamber which means that almost no annealing colours can form in the heat-affected zone of the weld seam. In 2017, the "HX" product family will be supplemented by a further model: The "HX 12P" welds pipes from 9.52 to 12.7 mm diameter. (Orbitalum Tools GmbH, Josef-Schuetzler-Str. 17, 78224 Singen/Germany; www.orbitalum.de)

# SIMPLY WELDING

MADE IN GERMANY

**PLASMAWIGIMMA**

**INVERTER**

MIG | MAG | PULS

**ProTIG**

220 | 300

350 | 500

**InoMIG**

350 | 400

500

**ProPULS**

320 | 330

400 | 500

**SCHWESSEN & SCHÜTTEN**

**DÜSSELDORF**

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