

E-COAT 1000

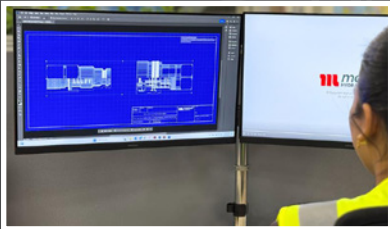


Extreme Durability for
OEM Applications

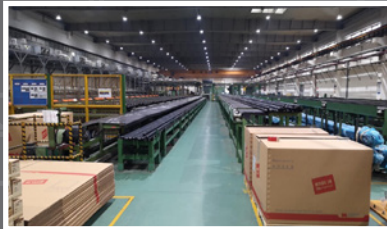
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 **manuli**[®]
HYDRAULICS

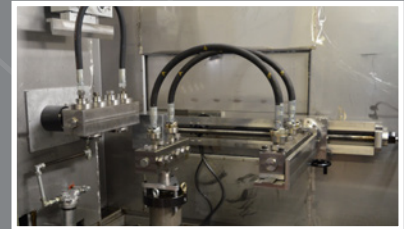
“Manuli Hydraulics is focused on achieving excellence in the design, manufacture, and supply of fluid conveyance solutions, components and associated equipment for high pressure hydraulics, industrial material conveyance, refrigeration and cooling applications.”



Our experienced Research & Development team take 2D drawings to 3D models to real life products.



Our world-class hoses, fittings and assembly equipment are manufactured in-house to the highest standards.



We test and validate our products to meet and exceed technical industry standards.

DESIGN

MANUFACTURE

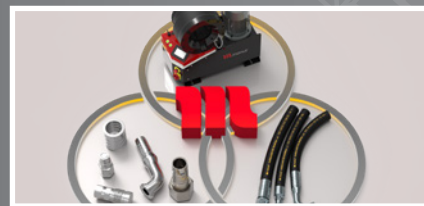
TEST

SUPPLY

INTEGRATED SYSTEMS



We provide the complete solution: hoses, fittings, crimping parameters and assembly equipment for a fully integrated system.



We supply fluid conveyance solutions directly to our customers whenever and wherever they are.

From design to manufacture, and assembly, Manuli Hydraulics' continual commitment to this unified philosophy makes us a global leader in providing integrated solutions for fluid and material transfer connector applications including hydraulics, refrigeration & air conditioning, oil & gas, water and industrial low-pressure.

Manuli Hydraulics offer a complete range of hoses, fittings and assembly equipment which are purposely designed to work seamlessly together. This harmonized approach allows us to guarantee the quality and performance of our hose assemblies.

Every metre of hose and every single fitting is backed by industry knowledge and experience, made available to you through our dedicated team of application engineers.

From advice on component selection and configuration, our technical expertise allows us to support and work directly with our customers whenever and wherever they are based.

Disclaimer: We reserve the right to modify our products and/or related services and/or discontinue the manufacture and/or supply of any of the products and/or related services, without notice. This document supersedes all previous versions and previously issued documentation. The only official source of technical crimping parameters regarding our products is our Digital Crimp Tools. Printed copies are uncontrolled therefore, please be sure to use the latest versions of our Manuli [Crimp App](#) or [Crimp Web Tool](#). Do not mix and match: always use Manuli original hoses and fittings. For more information, see our [Safety Guide](#) by scanning the QR code.



DON'T MIX & MATCH

WHY IS FITTING CORROSION SUCH A BIG PROBLEM?

Corrosion of fittings can have severely damaging effects on the life and reliability of hose assemblies. In cases where fittings are becoming corroded at an unacceptable rate, ISO/TS 17165-2:2018 recommends upgrading the fittings to ones with an alternative plating material suitable for the environment in which they will be used.

Manuli's standard E-Coat 500 plating is a first-class, long lasting solution which offers up to 500 hours to red rust in standard salt-spray tests, versus the required minimum of 144 hours as per SAEJ516 (ISO 9227 method).



OVER 1,000 HOURS OF CORROSION PROTECTION

But Manuli have upped their game even further and can now offer the new E-Coat 1000 plating, which offers double the corrosion resistance of standard E-Coat 500 plating with minimal cost increase.

Features & Benefits:

- **High Resistance:** In crimped conditions eg: ferrules and crimped back nuts.
- **Enhanced Performance:** Corrosion resistance compared to the standard E-Coat 500 plating (over 1,000 hours before red corrosion in standard salt spray test conditions ASTM B117 and ISO 9227*).
- **Higher Resistance:** To abrasion and handling than standard plating.
- **Full Compliance:** With the European Directives REACH 1907/2006/EC, RoHS 2011/65/EC, ELV 2000/53/EC.

E-Coat 1000 is available as an option on all Manuli hydraulic fittings and flat-face quick couplings.

E-Coat 1000 plating is the optimum solution for applications in severe environments and for demanding OEM specifications. It also offers even longer durability in standard hydraulic applications.



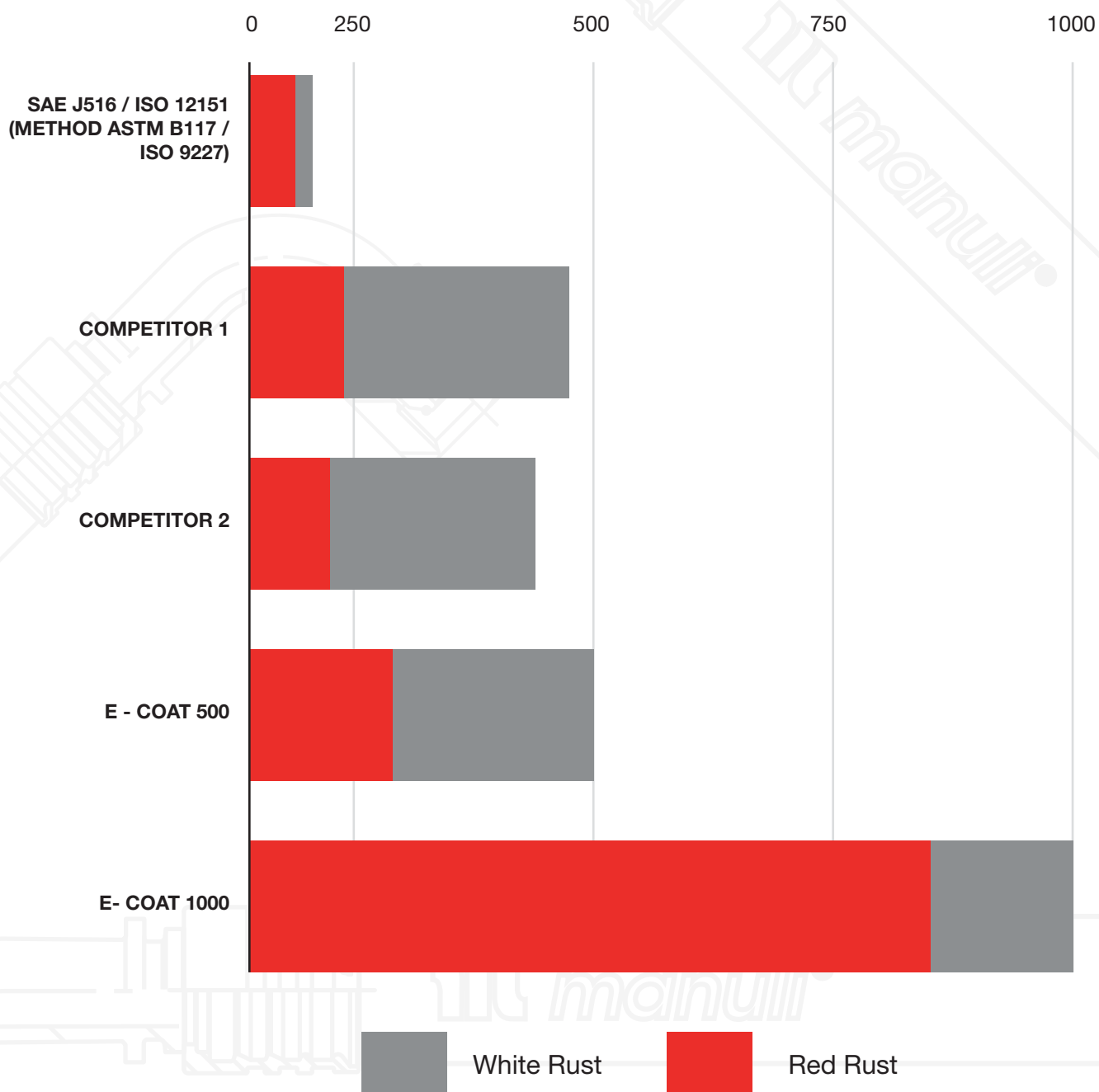
**1,000 Hours Applies to Pristine Parts; 750 Hours for Crimped Parts*

BEST IN CLASS CORROSION RESISTANCE

Many other fitting manufacturers declare the superb corrosion resistance of their fittings, so we tested E-Coat 1000 against the best of the competition. The results speak for themselves. The best comparable competitor coatings both declare 1,000 hours to red rust, however, they both began to show red corrosion after less than 500 hours, and were seriously corroded by 750 hours.

In contrast, the Manuli sample with E-Coat 1000 was barely showing signs of white corrosion after more than 1,000 hours in salt spray conditions. Even crimped fittings with E-Coat 1000 lasted over 750 hours before showing significant signs of corrosion, despite the damage to the plating integrity which occurs during the mechanical deformation process of crimping.

To take advantage of this game changing new plating, simply add the suffix “NK” to the part number to upgrade your plating to E-Coat 1000 when placing your orders. Quantities and box sizes as per standard fittings.



PUTTING IT TO THE TEST



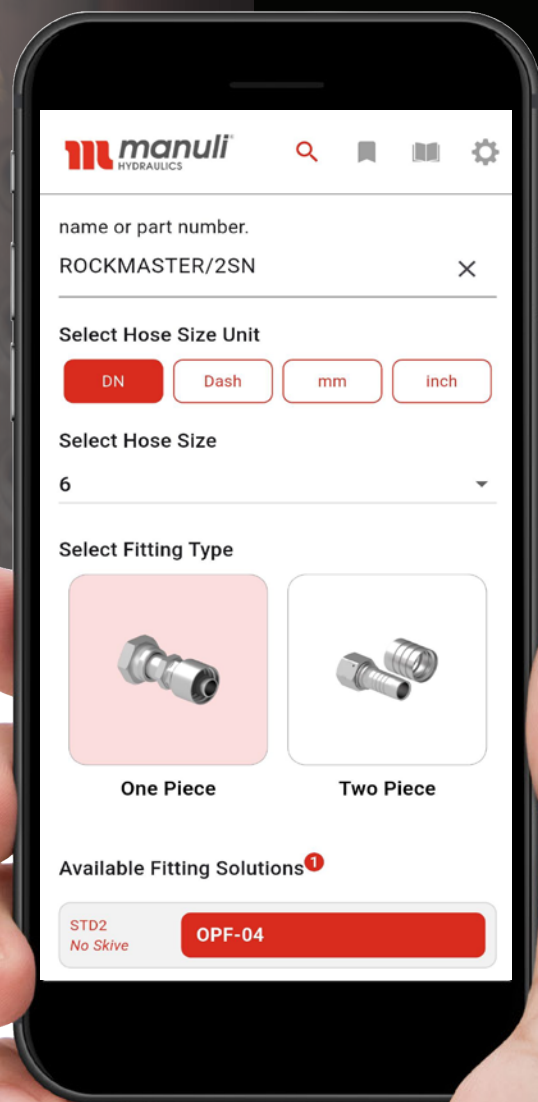
E-Coat 1000 after 1,000 hours ASTM B117 (ISO 9227) Salt Spray Test



Competitor 1 after 1,000 hours ASTM B117 (ISO 9227) Salt Spray Test



Competitor 2 after 1,000 hours ASTM B117 (ISO 9227) Salt Spray Test



manuli[®] CRIMP HYDRAULICS

YOUR SOURCE FOR THE MOST UP TO DATE CRIMP PARAMETERS

Stay up to date using Manuli's Digital Crimp Tools, available as an App and a Web version, our Crimp Tools are your go-to resource for accurate, efficient, and safe hydraulic hose crimping. Designed with professionals in mind, this innovative tool grants instant access to the latest crimp specifications, ensuring precision, and reliability in every assembly.

Whether in the workshop or on the go, Manuli Digital Crimp Tools provide real-time access to an extensive database of hose and fitting specifications, helping to reduce downtime and boost productivity.

Key Features of Manuli's Digital Crimp Tools:



Print Feature: This feature supports printing crimping parameters as reference charts for both single or multiple hose sizes within a selected hose family, supporting workshop and warehouse use.



Saved Items: Frequently used hose and fitting combinations can be saved within the app, allowing quick access to commonly used crimping parameters during routine hose assembly tasks.



Technical Centre: The Digital Crimp Tools are supported by a dedicated section on our website called the Technical Centre. This integrated resource provides expert insights, practical tips, and industry knowledge, with access to in depth guides and best practice information.



Accurate Crimping Parameters: To ensure accuracy on their crimping parameters, customers should regularly access the Manuli Digital Crimp Tools to check for updates. It is also recommended that printed charts should be reprinted regularly to ensure crimping information remains up to date.

Download the Manuli Crimp App Now



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