

CLIN™ ROD

CLIN™ ROD is a sustainable solution to improve lifetime and efficiency of rods and tubes in hydraulic cylinders. CLIN™ ROD are specific nitrided bars and tubes developed in partnership between HEF® GROUPE, surface engineering leader, and Aria industries, cylinder expert, to answer the needs of high performance and sustainable rods for hydraulic applications.

Steel grades:

- Common steel grades: C45 / 20MnV6 / 42CrMo4 Specific grades: 38MnV6 / E355 / E470 Any grades
- may be used: possible studies on demand Available on bars and tubes: treatment used on CLIN™ ROD
- is fully adaptable to tubes, ensuring the same efficiency an all surfaces to allow a rod design with a
- significant weight reduction.

Technical characteristics:

Yield point (depending on steel grade and dimensions)	From 250Mpa to 750 Mpa
Tensile strength (depending on steel grade and dimensions)	From 500 Mpa to 1200 MPa
Compound layer hardness (depending on steel grade)	From 600 Hv0,025 to 900 Hv0,025
Surface Roughness	Ra < 0,4µm
External diameter	From Ø 20mm to Ø 125mm
Tolerance	Class 7 or class 10
Standard Length	2m

Corrosion resistance:

Neutral salt spray test according to ISO 9227 - Evaluation according to ISO 10289 :

CLIN™ ROD 250	>250h class 10 (no rust point)
CLIN™ ROD 500	>500h class 10 (no rust point)
CLIN™ ROD 1000	>1000h class 10 (no rust point)

Applications



Farming



Energy



Handling



Construction



HEF[®]

NORTH AMERICA | Surface materials engineering

CLIN[™] ROD

CLIN[™] ROD : a sustainable rod thanks to CLIN[™] technologies

HEF[®] groupe's CLIN[™] technologies such as ARCOR[™] treatment used on CLIN[™] ROD have adopted a circular economy model through the development of the patented ECO-CLIN[™] processes which convert liquid nitriding wastes into directly usable consumables.

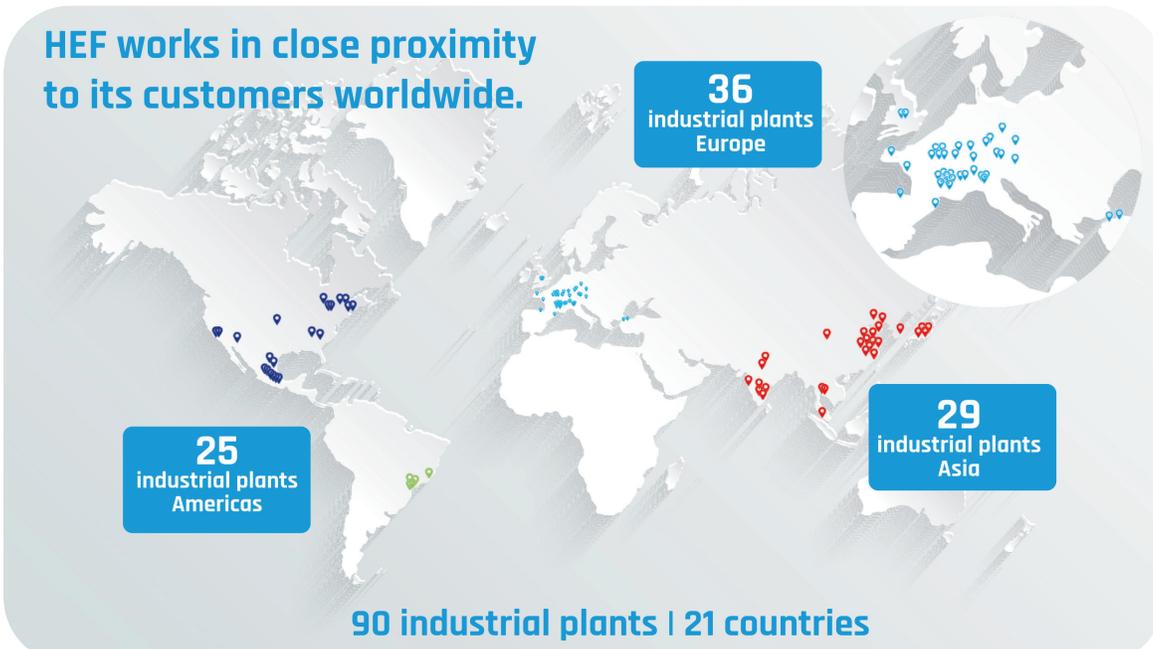
This strategy positions the CLIN[™] technologies as the ideal alternative to processes that are today submitted to EU restrictions, such as hard chrome plating. By offering the access to the CLIN[™] technologies to cylinder manufacturers through CLIN[™] ROD bars and tubes, HEF[®] Groupe offers a sustainable solution opening the way to innovation such as hollow rod for weight reduction.



CLIN[™] ROD : advantages

Corrosion resistance			All surfaces treated
Wear resistance			No flaking
	Safe & REACH compliant	Sustainable technology	

HEF[®]Groupe: A worldwide footprint



Contact

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