socatri 1500

Ready-to-use bars which eliminate the risk for corrosion of piston rods

Socatri 1500 is the optimum choice in critical applications or whenever corrosion threatens to drastically reduce the useful life of piston rods.

APPLICATIONS AREAS

Industry
- Mining
- Production of chemicals
- Oil and gas
- Transport
- Civil engineering
- Agriculture

Strategic sector
- Military
- Aerospace
- Nuclear
- Power generation

Aggressive environments
- Marine and offshore
- Extreme climates
- Corrosive chemicals

Socatri 1500
Standard imperial programme (*)

Dia., inch	lbs/ft
0.875	2.05
1.000	2.67
1.125	3.38
1.250	4.18
1.375	5.05
1.500	6.01
1.750	8.19
2.000	10.69
2.250	13.53
2.500	16.71
2.750	20.21
3.000	24.06
3.250	28.24
3.500	32.74
3.750	37.59
4.000	42.77
4.500	54.13
5.000	66.82
5.500	80.85
6.000	96.22

* Metric sizes can also be supplied. The range for such is 20-160 mm.

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Steel base

280X is a low carbon, micro-alloyed steel combining high mechanical strength with excellent machinability and weldability. It is available in bar or tubular execution.
280CD is the cold drawn version.

482 is a medium carbon, micro-alloyed steel, which is characterized by high strength directly in the as-rolled condition, without further heat treatment. It is well adapted to induction hardening. Surface hardness of **482IH** is 55 HRC min and depth of hardening at 400HV_5 is 0.04”-0.10”.

Closest corresponding standards — Typical chemical analysis

Grade	EN	SAE/ASTM	C%	Si%	Mn%	V%	S%	C.E.% (*)
280X	20MnV6	A572	0.18	0.35	1.55	0.11	0.025	0.55 max
482	38MnV6	1045V	0.39	0.40	1.20	0.13	0.02	0.72 max

*C.E.=%C+%Mn/6+(%Cu+%Ni)/15+(%Cr+%Mo+%V)/5

Mechanical properties

Grade Ovako	Size (Ø) Inch	Yield Stress R_{eH}, ksi	Tensile stress R_m,ksi	Elongation A_5,%	Hardness HB	Toughness KV, ft-lbs
280X	>0.875-3.500	≥75	94-115	≥19	200-240	≥20 at -4 °F
280X	>3.500-4.750	≥64	80-100	≥19	180-230	≥20 at -4 °F
280X	>4.750	≥50	80-110	≥19	180-230	≥20 at -4 °F
482	<4.750	≥85	123-145	≥14	250-300	No guarantee (**)
280CD	<2.750	≥100	≥106	≥10	200-240	No guarantee

**Base steel meeting KV≥20 ft.lbs at -4 °F can be supplied by special arrangement

Surface layer and surface finish

Nickel layer	Chrome layer	Surface roughness
Thickness ≥ 0.0016”	Thickness≥0.0008”	Ra≤ 8µ-inch
Hardness ca 250 $HV_{0.1}$	Hardness≥850 $HV_{0.1}$	Rt≤64µ-inch

Dimensional Tolerances

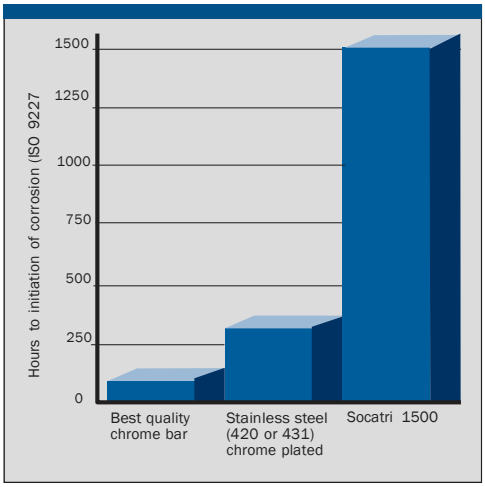
Diameter tolerance	Straightness	Ovality
ISO h8	0.004” over 40”	50% of h8

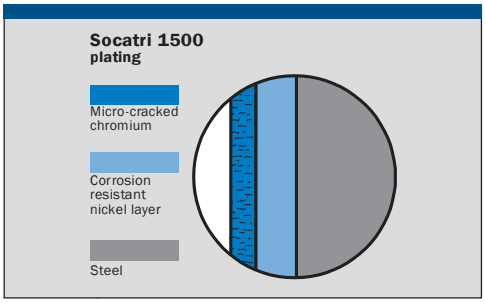
Bar lengths

Standard bar lengths are 20 +0.3/-0 ft. Other lengths can be supplied by special arrangement but the maximum is 24 +0.3/-0 ft. Cut pieces can be also supplied.
The non plated lengths of each bar are at most 6” at one end and 2” at the other.

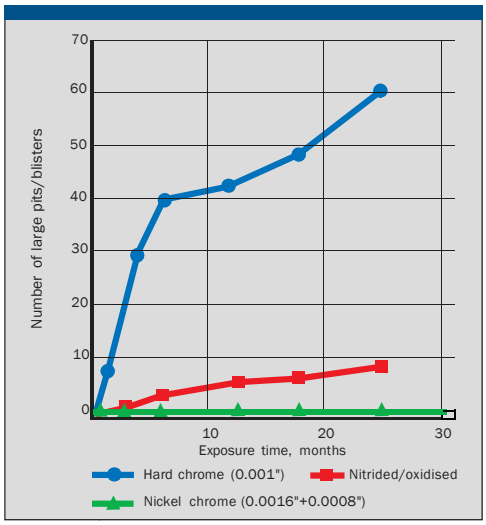
Certified corrosion resistance

	ISO 9227 NSS ASTM B117 Neutral salt spray	ISO 9227 AASS ASTM B287 Acetic acid salt spray
Duration	>1500 hours	>500 hours
Rating according to ISO 10289	10 (no corrosion)	10 (no corrosion)





Long-time exposure test of piston rods in marine environment



Data source: Swedish Institute for Production Engineering Report No 90811

In the United States, Canada and Mexico Call:

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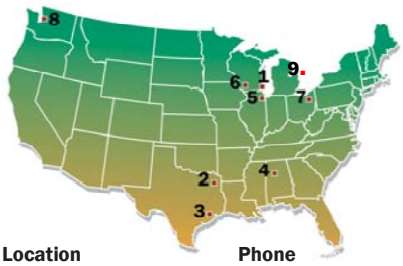

Location	Phone	Location	Phone
1. East Troy, Wisconsin	262-642-4600	6. Muscoda, Wisconsin	608-739-3171
2. Lone Star, Texas	903-639-2551	7. Wooster, Ohio	330-262-7585
3. Brooshire, Texas	281-391-4340	8. Centralia, Washington	206-621-1976
4. Talladega, Alabama	256-315-1620	9. Milton, Ontario Canada	905-864-9050
5. Sugar Grove, Illinois	630-466-7591		

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