

Duraband® NC (久固邦)

市场上最可靠的耐磨带

- 无开裂
- 最优防护
- 保护套管
- 耐磨



优良的历史记录



Duraband® NC (久固邦)

第一家无开裂耐磨带, 对接头和套管提供最大保护

- ◆ 2007年推出, 市场上耐磨时间最长, 最可靠的耐磨带 已被主要钻井公司, 油公司和钻杆厂商认可
- ◆ 绝对低成本, 可重复翻新, 无需彻底清除残留
- ◆ 特别适用于酸气环境
- ◆ 地热钻井的理想产品

取信于客户, 取信于钻井行业



Duraband® NC (久固邦) 已应用于如下国家和地区

俄罗斯
中国和东南亚
中东
欧洲

澳大利亚
非洲
北美
南美

以往客户

- **Weatherford Rental**
- **Allis Chalmers(Archer)**
- **Thomas Tools**
- **Quail Rental**
- **IOT**
- **Tasman**
- **Workstrings**
- **Subsurface Tools**
- **Chesapeake Energy**
- **Patterson Rentals**
- **Transocean**
- **Ensco**
- **Seadrill**
- **KCA Deutag, Maersk**
- **Stena**
- **Approved by Exxon, BP**
- **Shell Exploration**
- **Hess**
- **Ensign USA**

POSTLE 的能力

制造



研发



现场技术支持



标准流程和特别流程

Duraband NC

新钻杆和翻新钻杆

Duraband NC

酸气钻杆

新

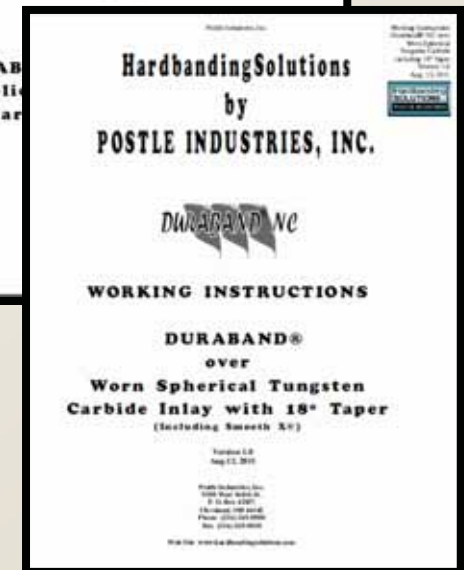
Duraband NC

与其他保护钻杆的
耐磨产品可以配合使用

Duraband NC

敷焊于碳化钨

新



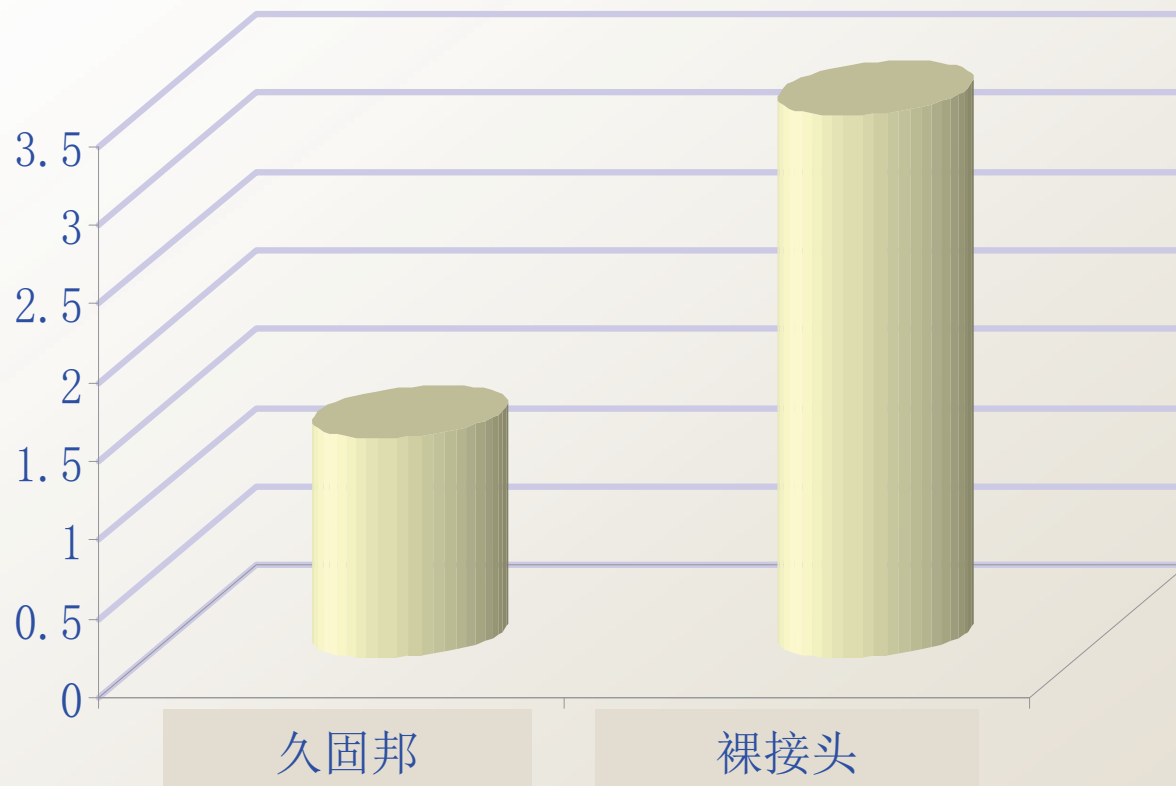


久固邦 (DURABAND® NC) 是NS-1™ 认可的产品

我们产品的套管防磨性能和耐磨带质量得到了钻井工业界的承认和Fearnley Procter的NS-1实验验证

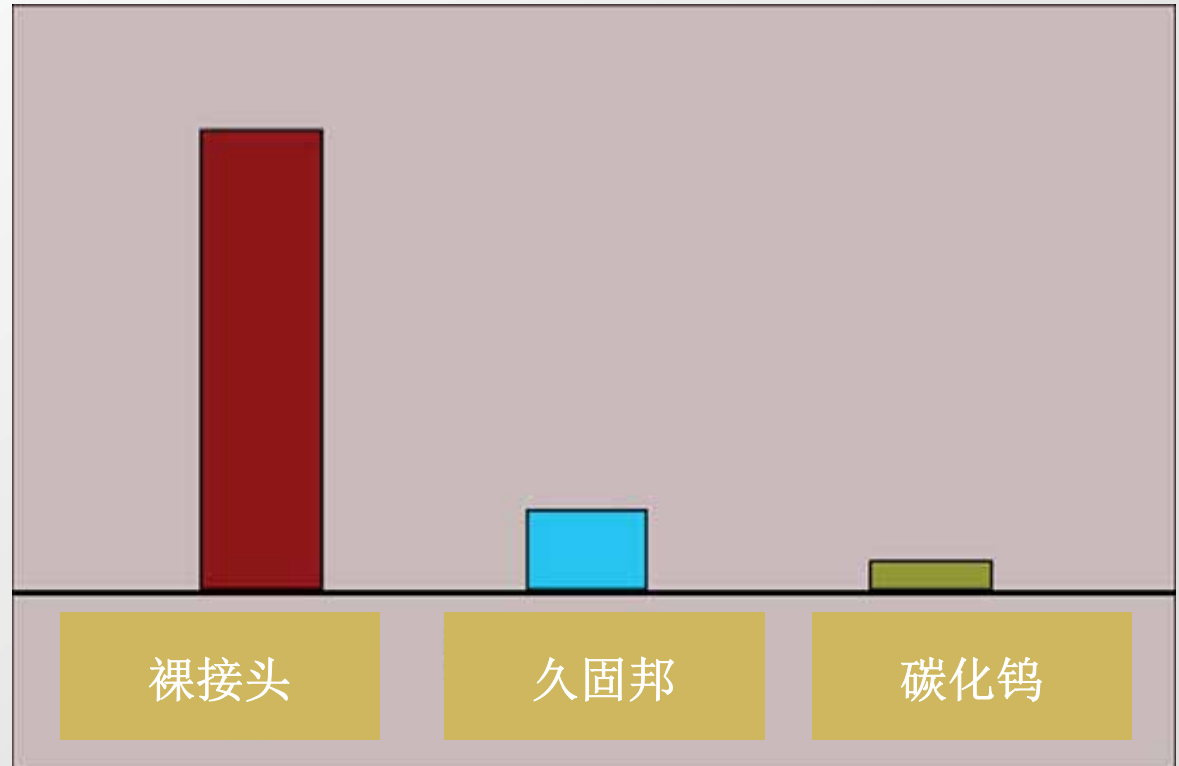
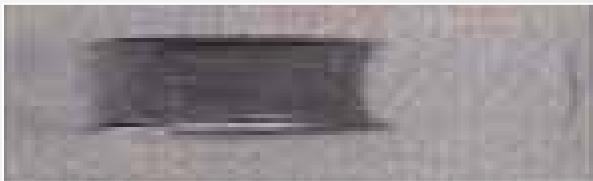
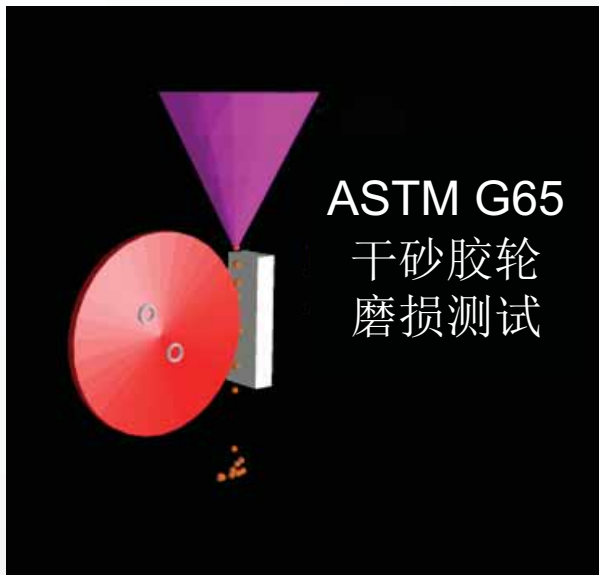
Duraband® NC (久固邦) 保护套管

T95型套管磨损



Duraband® NC (久固邦) 保护工具接头

ASTM G65 磨损测试数据

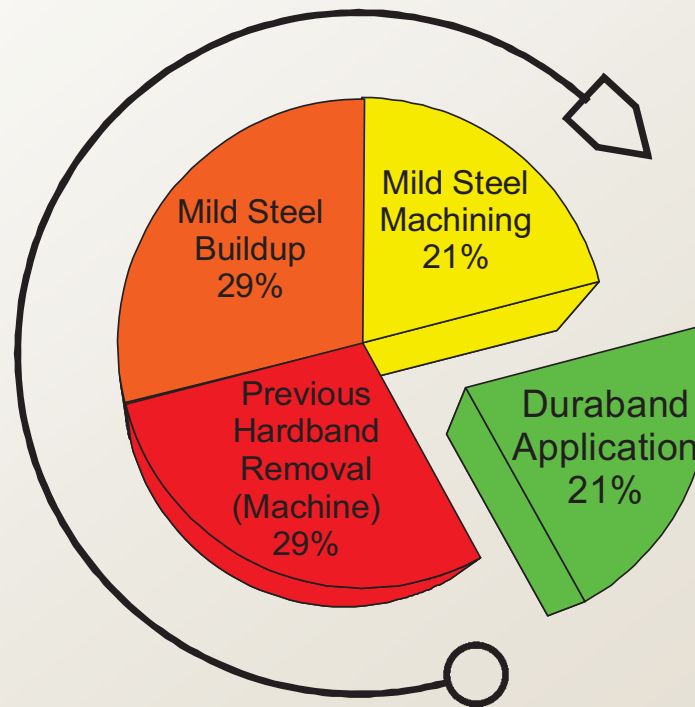


Duraband® NC（久固邦）的特点

优良的使
用记录

- 无开裂
 - 磨屑/钻井液不会造成开裂,不影响翻新
 - 无剥落,掉屑或者片状剥落
- 酸气钻井环境的理想产品
- 地热钻井的理想产品
 - 无开裂—硫化氢和高温无法侵入耐磨带内层
- 无翻新次数限制 **100%**可靠
- 可连续翻新. 无裂缝, 无孔隙

清除原有残留并敷焊久固邦或强力邦的相关成本



久固邦独一无二



无开裂

久固邦

有开裂和剥落

竞争产品

久固邦（DURABAND®NC）是唯一专为不允许新钻具有任何裂缝的高磨损环境设计NS-1产品



久固邦产品手册中, 可接受的裂缝标准:

在正确焊接条件下, 久固邦（Duraband®NC）耐磨带焊层不会出现任何裂缝。如果裸眼或者MPI检测在焊层发现裂缝, 不管是在热影响区还是在焊接边缘, 这个工具接头为“不合格”产品。

开裂的耐磨带



- 开裂的频度和形状千奇百怪
- 翻新次数和层数有限
- 结构不契合
- 开裂处存留碎屑、泥浆和油
- 过早翻新



久固邦 (Duraband® NC) 比Armacor M 更耐久



ARMACOR MStar®

DURABAND® NC

Comparison of worn Armacor® MStar™ and worn Duraband® NC re-application over Armacor® MStar™. Note considerably less cracking in the Duraband®, Duraband® inherits some of the original Armacor® MStar™ crack pattern during re-application procedures, but also tends to diminish it. Subsequent re-applications of Duraband® NC over worn Duraband® NC will show **NO CRACKS**.

Comments by Scott Laird, CSI

"Final analysis is clear that the Duraband product shows better wear characteristics in that it does not flake or spall compared with the Armacor. The actual surface wear patterns are very comparable as 1/64" or less difference between the two alloys....."

"There was considerable spalling and flaked hardband on the Armacor® M-Star™."

ExxonMobil Testing
H&P 233, E. Texas
Sept. 25, 2010

Comparison of Duraband® NC vs. Armacor® MStar™

Drilling Depth and Total Hrs. is unknown.

Measurements and analysis conducted by Connection Specialists Inc. Scott Laird, Inspector

Photos courtesy of CSI Report courtesy of ExxonMobil Permission to publish granted by ExxonMobil

Armacor® MStar™ are trademarks of Liquidmetal Technologies

"Penetrant testing provided a useful comparison for the depth and amount of cracking between the two products. Overall the Duraband exhibited less overall propensity for flaking."

Scott Laird, CSI



DYE PENETRANT TESTING

Armacor® M-Star™ Over Armacor® M-Star™ **Duraband® NC Over Armacor® M-Star™**

HardbandingSolutions.com

久固邦敷焊于太合金上， 比钛合金更耐磨



从统计结果看,久固邦比钛合金更耐用

总计141个敷焊接头 应用久固邦产品 没用久固邦产品

敷焊接头数量	11	130
母扣需要修复的接头数量和比例	9% 1个母扣	37% 48个母扣

统计结果

敷焊后的接头送独立检测机构 检测认证情况

POSTLE INDUSTRIES, INC.

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Test Joint Application Analysis of Duraband over 4145

Issue Date: August 18, 2011

Report No: N10211

Client: Smith Services, Cairo, Egypt

Medium: Steel Plates

Industry: Manufacturing of Construction Steel

Preparation: None

Test Application: Duraband installation of Preparation of Manufacturing Condition

Prepared by: Long Jochen, Laboratory Testing Engineer

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Report # TTP-H1011-1 Smith Services Egypt in Research

Visual inspection

Item	Yes	No	Comments
Surface appearance	Yes	Yes	
Cracks	Yes	Yes	
Surface pockmarks	Yes	Yes	
Test Deviation	Yes	Yes	

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Sample using and preparation of Duraband welded sample # TTP-H1011-1 Smith Services Egypt

Sample use and testing in the field or on

Page 1 of 1

POSTLE
INDUSTRIES, INC.

DURABAND® NC
LEVEL 1
CERTIFIED APPLICATOR

11001008MS155
August 19, 2011

This certifies that

SMITH SERVICES
MARSA MATROUH, EGYPT

has completed the requirements of Postle Industries, Inc. and can comply with all procedures as described in the DURABAND® NC Procedure Manual.

John Postle
President
Postle Industries, Inc.
Cleveland, OH *[Signature]*

This certificate is valid only for the Company and Location & Facility Location indicated on this Certificate. Expiration Date: 08/19/2015

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Report and analysis of Duraband applied to TTP-H1011-1 Smith Services Egypt

No Linear Indication Found.

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Hardness report for TTP-H1011-1 Smith Services Egypt

Testing equipment: Shimadzu 1000 Condition Report: 411
Reading instructions: Values (H) in reported in Brinell (N/mm²) unit

Specimen	Loc. 1	Loc. 2	Loc. 3
Duraband Zone Detail for Duraband	1/16" Duraband	1/16" Duraband	1/16" Duraband
	1/8" Duraband	1/8" Duraband	1/8" Duraband
	1/4" Duraband	1/4" Duraband	1/4" Duraband
Duraband zone Detail for 4145	1/16" 4145	1/16" 4145	1/16" 4145
	1/8" 4145	1/8" 4145	1/8" 4145
	1/4" 4145	1/4" 4145	1/4" 4145
	1/8" 4145	1/8" 4145	1/8" 4145
	1/4" 4145	1/4" 4145	1/4" 4145
	1/8" 4145	1/8" 4145	1/8" 4145
Duraband zone in the base metal	1/16" Base Metal	1/16" Base Metal	1/16" Base Metal
	1/8" Base Metal	1/8" Base Metal	1/8" Base Metal
	1/4" Base Metal	1/4" Base Metal	1/4" Base Metal

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TTP-H1011-1 Smith

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