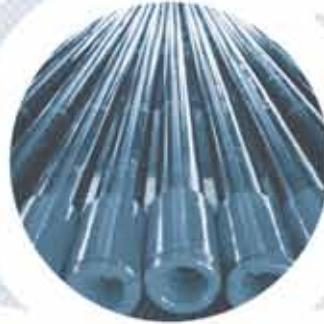




Premium Connection BGT2  
Tubing and Casing  
Products Catalog

**BGT2特殊螺纹接头油套管**  
产品手册



[www.baosteel.com](http://www.baosteel.com)



宝山钢铁股份有限公司  
BAOSHAN IRON & STEEL CO., LTD.



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# 简介

## Introduction

**宝山钢铁股份有限公司** (简称“宝钢股份”)是中国最大、最现代化的钢铁联合企业。宝钢股份以其诚信、人才、创新、管理、技术诸方面综合优势,奠定了在国际钢铁市场上世界级钢铁联合企业的地位。《世界钢铁业指南》评定宝钢股份在世界钢铁行业的综合竞争力为前三名,认为也是未来最具发展潜力的钢铁企业。

公司钢管产业拥有 50 年的钢管制造经验,包括中小口径热轧无缝管、特种合金无缝钢管、冷轧和冷拔无缝钢管、中大口径高频电阻焊管、大口径直缝埋弧焊管等产品,集科研、产品开发、加工检验、产品销售于一体,实行从炼铁、炼钢(转炉、电炉)、热轧钢卷、厚板、条钢到制管及管加工的一贯制质量管理,具有特大型钢铁联合企业综合生产的规模化优势,目前已成为中国包括无缝、焊管的大型精品钢管研发生产基地。

公司以其先进技术、设备、管理、良好的信誉,保证提供高质量的产品和服务,令客户满意。公司全体员工衷心感谢您对我们产品的关注和使用,竭诚欢迎您对公司产品和服务提出宝贵意见。

如果您所需产品的品种、规格或者特殊要求在本手册中未覆盖,请与我们联系,我们将予以即时答复。

Baoshan Iron & Steel Co., Ltd. (hereafter referred to as "BAOSTEEL") is the largest and most modernized steel complex in China. Baosteel has secured its standing as a world class integrated steelmaker in the international steel market with its comprehensive strengths in credit talent, innovation, management and technology, etc. World Steel Dynamics (WSD) ranks Baosteel within the top 3 in terms of comprehensive competitiveness in the global steel industry, and it is believed to be the most promising player in the steel world.

the company's tube sector has 50 years-long experience in steel tube & pipe production. Its products include medium and small diameter hot-rolled seamless tube, specially alloyed seamless tube, cold-rolled and cold drawing seamless tube, medium and large diameter high frequency ERW pipe, large diameter SAWL pipe, etc. It integrates R&D, processing and inspection, products sales, etc., implements the through-going quality control from iron-making, steel-making (BOF, EAF), hot-rolled coil, heavy plate, bar steel to tube making and throughout-process quality control, is superior in scale with regard to the comprehensive production of the giant steel complex and has become a large-sized premium tube R&D and manufacture base for both seamless tube and welded pipes.

With its leading technologies, equipment, management and favorable reputation, customers are ensured to enjoy the quality products and satisfactory service. We thank you very much for your attention and use of our products and warmly welcome your comments and suggestions.

We should be glad to give you a prompt response, if you contact us for any things about grade, specification or special requirement beyond this catalog.

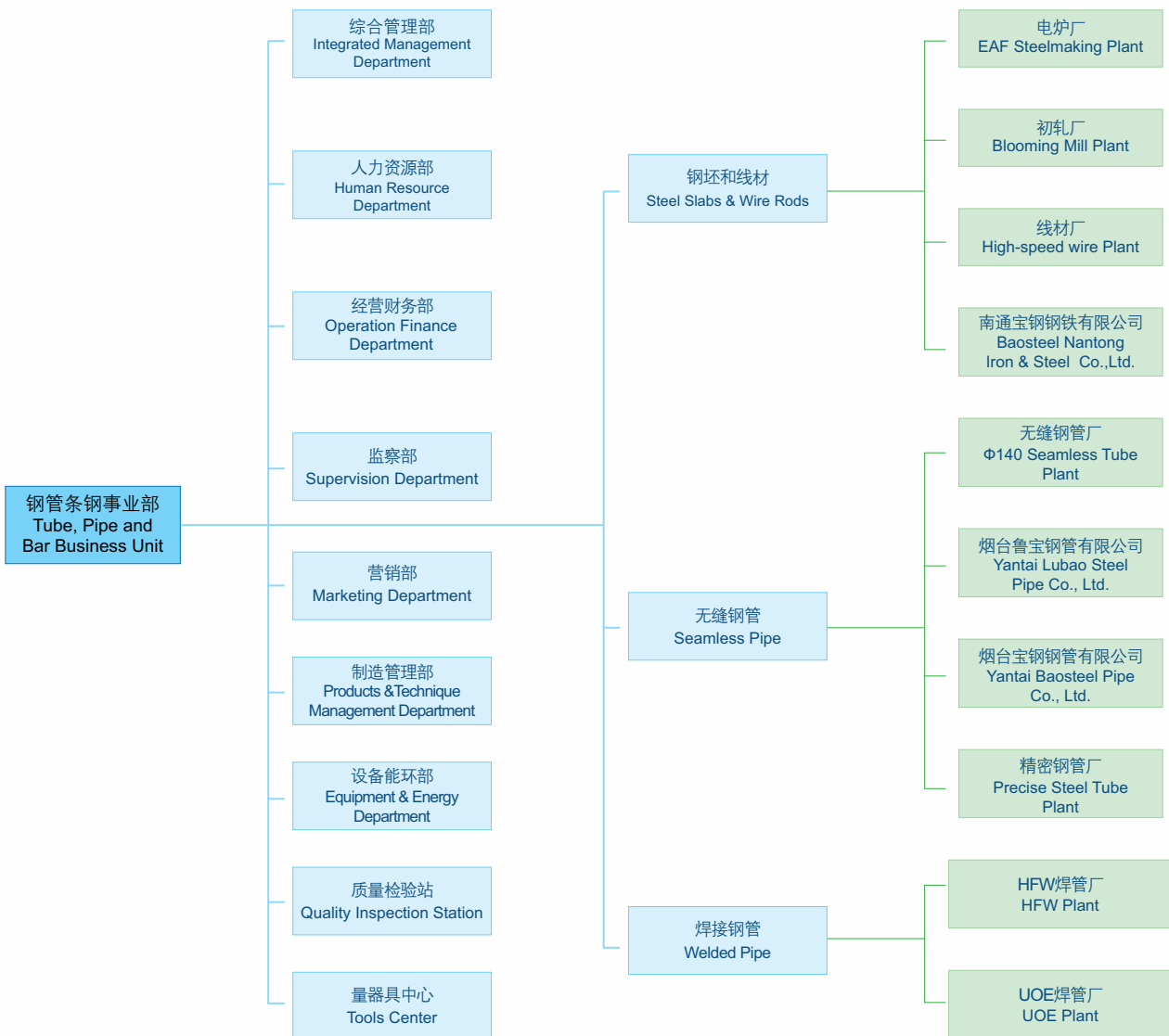


# 工厂及分布

## Facilities and sites

宝钢钢管组织机构图：

Organization chart of Baosteel steel tube & pipe:



## 生产机组及规格范围

### Baosteel steel tube manufacturing lines and range of sizes

宝钢钢管生产机组及规格范围：

Baosteel steel tube production lines and sizes range:



新疆 Xinjiang	山东 Shandong	南通 Nantong	上海 Shanghai
<ul style="list-style-type: none"> <li>• 宝钢克拉玛依钢管有限公司 Xinjiang Karamay Steel Pipe Ltd. (Baoma Tube)</li> </ul>	<ul style="list-style-type: none"> <li>• 烟台鲁宝钢管有限公司 Yantai Lubao Steel Pipe Co., Ltd.</li> <li>• 烟台宝钢钢管有限公司 Yantai Baosteel Pipe Co., Ltd.</li> </ul>	<ul style="list-style-type: none"> <li>• 南通宝钢钢铁有限公司 Baosteel Nantong Iron &amp; Steel Co., Ltd.</li> </ul>	<ul style="list-style-type: none"> <li>• 电炉厂 EAF Steelmaking Plant</li> <li>• 初轧厂 Blooming Mill Plant</li> <li>• 线材厂 High-speed wire Plant</li> <li>• 无缝钢管厂 Φ140 Seamless Tube Plant</li> </ul>
			<ul style="list-style-type: none"> <li>• HFW焊管厂 HFW Plant</li> <li>• UOE焊管厂 UOE Plant</li> <li>• 精密钢管厂 Precise Steel Tube Plant</li> <li>• 特殊钢事业部钢管厂 Special Steel Business Unit Steel Tube Plant</li> </ul>
泰国 Thailand			
<ul style="list-style-type: none"> <li>• 宝力钢管(泰国)有限公司 Poly Pipe (Thailand) Co., Ltd. (Poly Pipe)</li> </ul>			

# 宝钢质量保证体系及一体化优势

## Integrated advantages of Baosteel quality assurance system

宝钢股份采用国际先进的质量管理体系，主要产品均获得国际权威机构认可。公司获得了英国 BSI 公司颁发的质量、环保和安全综合管理体系证书 IMS ( ISO 9001、ISO/TS 16949、ISO 14001、ISO 18001 )、华夏认证中心 ( CCCI ) 颁发的 ISO14001 环境管理体系证书以及国家质量监督检验检疫总局颁发的完善计量检测体系证书。

钢管厂有关产品获得的认证证书主要有：

\* 油管、套管、钻杆和管线管等油田用管材获得美国石油协会 API 颁发的 5CT、5DP、规范 7、5L 会标使用许可证；

Baosteel has been granted the IMS certificates for quality, safety, environment (ISO 9001, ISO/TS 16949, ISO 14001 and ISO 18001) by British Standard Institution (BSI), the certificate of ISO14001 Environmental Management System by China Certification Center, Inc., and the certificate for perfecting the measuring and detecting System by the State General Administration of Quality Supervision and Inspection.

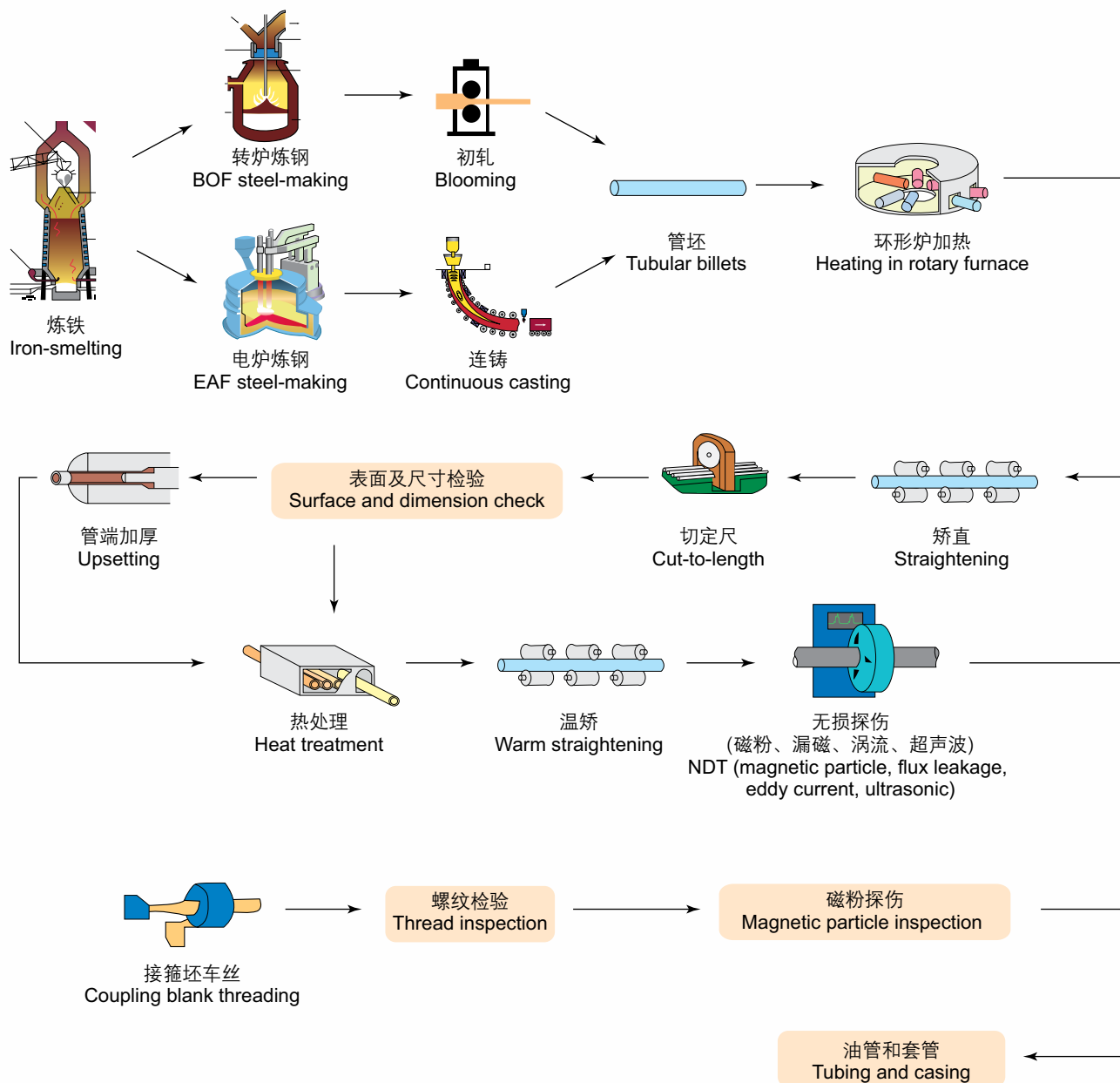
And its steel tube and pipe products have got the following major certificates:

\* API's 5CT, 5DP, spec.7 and 5L monograms licensed for the use in such tubular products such as tubing, casing, drill pipe and line pipe for oil fields :

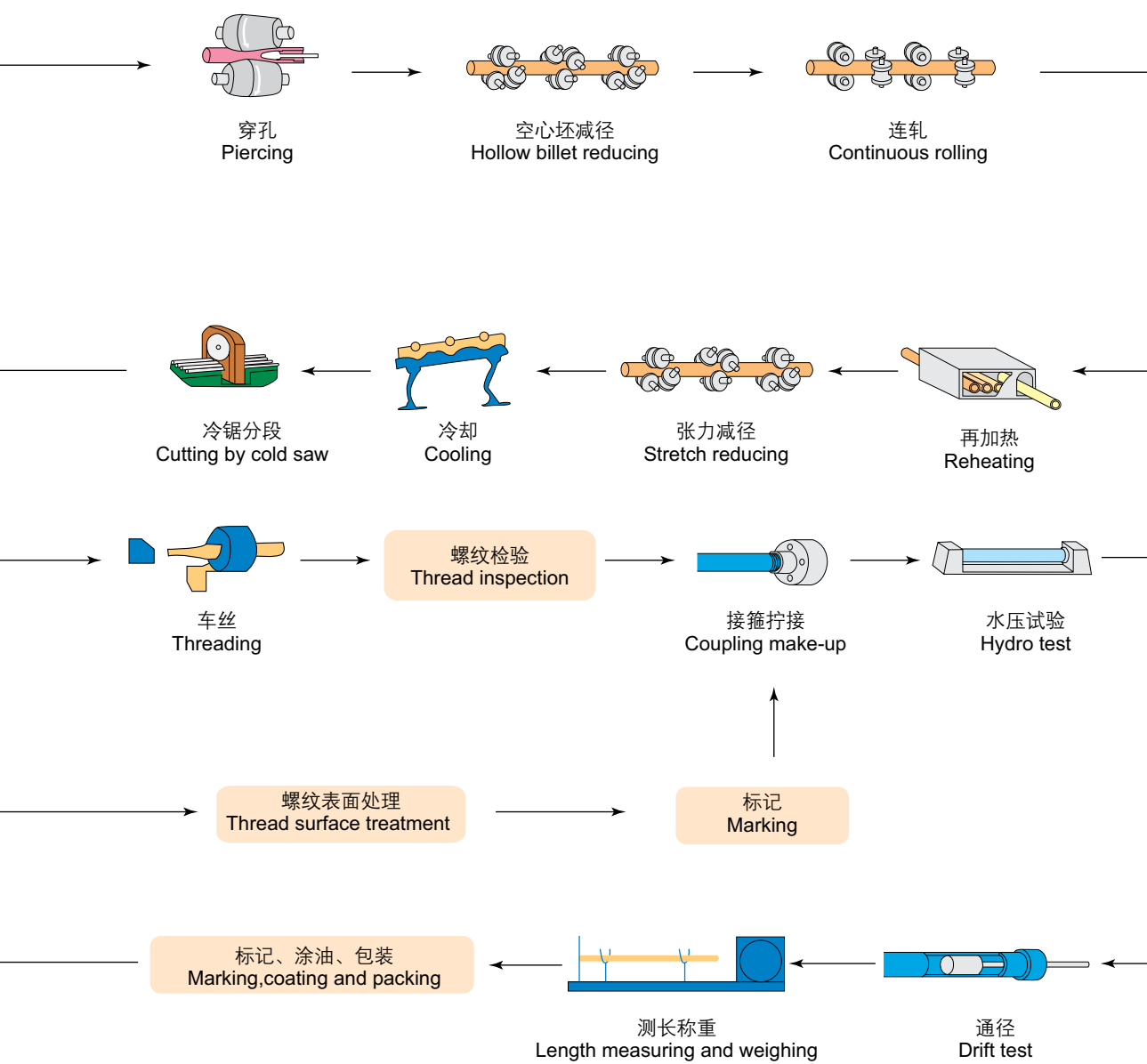


# 产品制作工艺流程

## Process flow chart







## 宝钢BGT2系列特殊螺纹接头油套管产品

# Baosteel BGT2 Premium Connection Tubing and Casing Product



>>>	产品特点及性能指标	Product characteristics and properties
	BGT2接头结构特点	BGT2 design concept and structure
	BGT2使用性能	properties of BGT2
	BGT2油管扭矩表	Torque table of tubing
	BGT2套管扭矩表	Torque table of casing
>>>	国内外认证情况	Product evaluation reports
>>>	用户使用业绩	Service and applications
	下井使用报告	Used reports from customer
	钢级表	Grade table
	宝钢特殊螺纹附件	Baosteel premium connection accessories
>>>	产品标记	Product marking
>>>	产品包装要求	Packing specifications
>>>	用户使用指南	User's guide





Baosteel BGT2 Premium Connection Tubing and Casing Product

## 宝钢 BGT2 系列特殊螺纹油套管产品独特的技术、 质量和服务特点。

★ 雄厚的科研力量和先进制造设备的支持。通过计算机模拟仿真和全尺寸实物试验，对产品持续不断的改进和研究，为用户提供更安全更高效的油套管；从炼钢到轧制，直到螺纹精密加工，全部按照 ISO9001 的质量管理体系和 API SPEC 5CT、API SPEC 5B 质量要求进行质量控制；螺纹加工采用先进的数控机床。

★ 令用户完全信赖的产品可靠性。产品完全满足 API 要求的抗内压强度、抗外挤强度、抗拉强度和弯曲 + 拉 / 压 + 内外压等复合载荷的性能要求；按照 API RP 5C5 ( ISO 13679 CAL IV )、TGRC1、TGRC2 和 TGRC3 标准等苛刻条件进行全面试验，保证产品性能。

★ 以用户满意为宗旨的服务目标和健全的售前、售后服务体系。宝钢股份公司强大的技术力量和对油田各种使用条件长久的经验积累，能协助用户完成优化的油套管井身设计，提供相应的技术咨询，并具备油套管管柱的配套供货能力；派出专业人员到现场协助指导井队对 BGT2 系列油套管的吊卸、上扣和下管作业。

### **Baosteel BGT2 Premium Connection Tubing and Casing Product Characterized By Original Technology, High Quality & Professional Service**

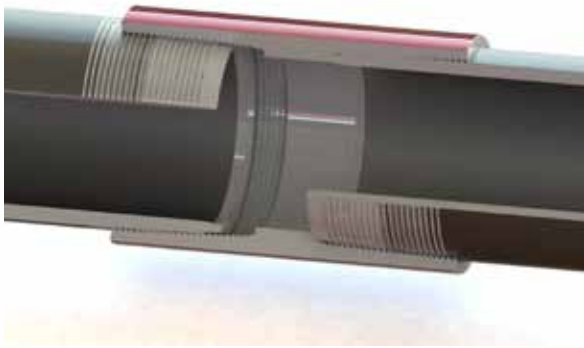
★ With the strong support of R&D and sophisticated manufacturing facilities, the safer and more efficient oil tubing and casing are produced for users, by means of computerized simulation and full -scale product tests dedicated to the continued improvement and research of product design. The whole process flow from steel-making, pipe rolling to precision threading is all under the quality control as per ISO 9001 quality control system and API SPEC 5CT, API SPEC 5B. And the thread processing is carried out with the state-of-the-art CNC.

★ The highly reliable products can completely meet API's requirements for burst strength, tensile strength, collapse strength and the combined loads with bending + tension/compression + internal/ external pressure. The products' performance is ensured by all the tests in the rigorous conditions just as specified by API RP 5C5 ( ISO 13679 CAL IV ), TGRC1, TGRC2 and TGRC3 standards.

★ Baosteel takes the customers' satisfaction as goal and boasts the sound and complete service system covering before-sales and after-sales services. By its powerful technical strength and long-accumulated experience in various service conditions of oil fields Baosteel can help the users to optimize the design of oil tubing and casing well bore, and allow itself to provide technical consultancy, supply the matching column jacket for oil tubing and casing, and send our engineers to job-sites to furnish technical service, including training and the guidance how to use BGT2 series of tubing and casing.

# 产品特点及性能指标

## Product features and properties



### BGT2 油套管

- 1、更稳定的密封性能；
- 2、更高的抗拉伸、压缩强度；
- 3、更好的抗粘扣性能；
- 4、更快的上扣速度；
- 5、更好的抗弯曲能力；

#### BGT2 特殊螺纹接头油套管设计特点：

- 1、锥面对锥面的金属过盈密封结构；
- 2、负角度扭矩台肩，保证精确的上扣扭矩控制；
- 3、承载面螺纹负角度设计，100% 拉伸、压缩效率，大角度导向面，方便上扣；
- 4、优化的螺纹中径和金属密封面过盈量，增强抗粘扣性能；
- 5、细分的螺距，更快的上扣速度；
- 6、接头内平设计，消除油气紊流；
- 7、接箍外径差异化设计，便于井下作业。



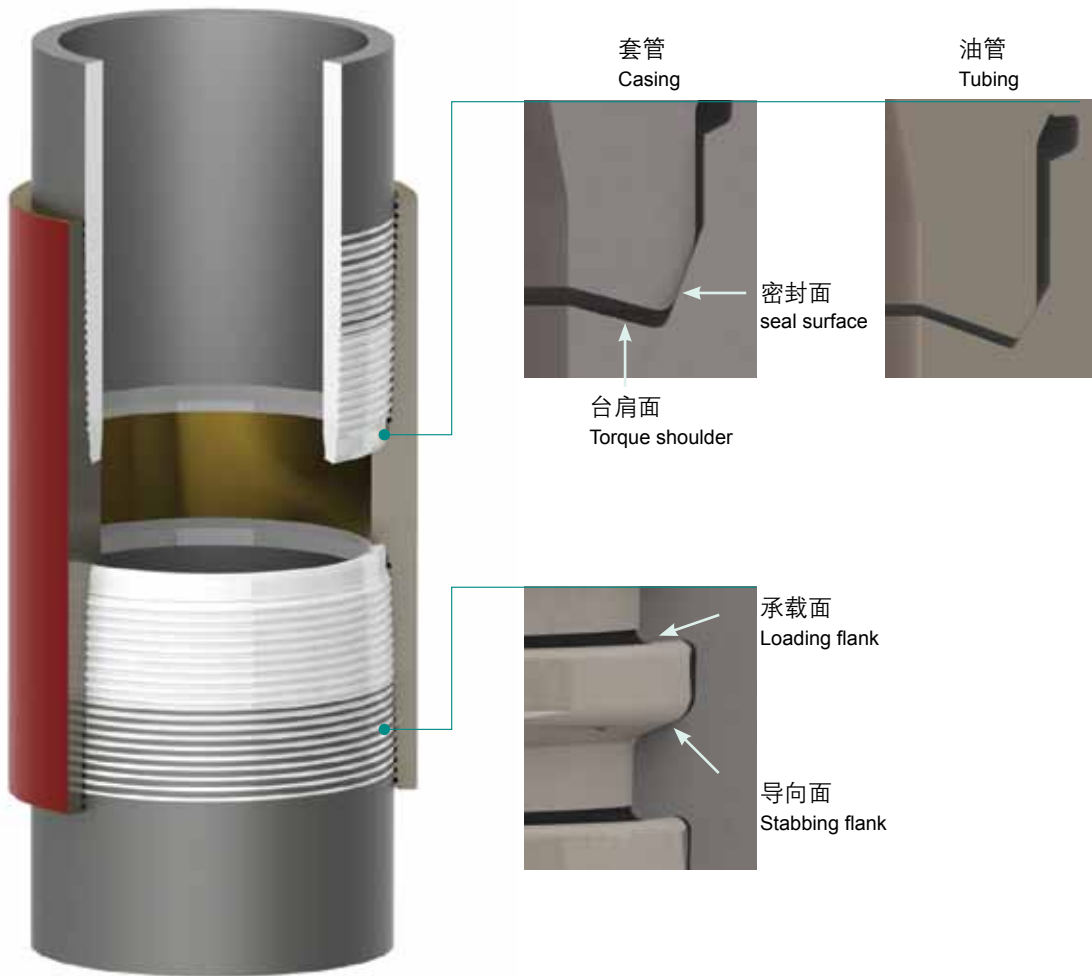
### BGT2 Tubing and casing

1. Excellent gas- sealing performance
2. Higher tensile and compressive strength
3. Better anti-galling performance
4. Speed make-up
5. More effective reducing turbulence

#### Design features of BGT2 premium connection:

1. Optimized Metal-to-Metal Seal: Stable cone sealing structure prevent from any galling and leak issue.
2. Reverse Angle Torque Shoulder: Accurate power tight make-up, energizes the metal-to-metal seal contact.
3. Improved Hook thread profile: 100% PBYS rating in tension and compression.
4. Optimized Pitch: Easy make-up.
5. Internal Flush: Streamlined internal profile for high-velocity gas flows.
6. Options: Special Bevel; Special Clearance; Special Drift; Matched Strength.
7. Designed for high performance and versatility, ISO 13679 CAL IV tested and field proven.

宝钢BGT2特殊螺纹接头油套管产品  
Baosteel BGT2 Premium Connection Tubing and Casing Product



## BGT2 结构参数

### BGT2 Form

		油管 Tubing	套管 Casing
螺纹参数 Thread form	导向面角 Stabbing flank angle	10°	25°
	承载面角 Loading flank angle	-4°	-5.71°
	锥度 Taper angle	1:16	1:16
密封面参数 Seal form	锥度 Taper angle	30°	75%
	扭矩台肩角 Torque shoulder	20°	15°
螺距 Pitch		2 3/8in≤OD≤2 7/8in 8TPI 3 1/2in≤OD≤4 1/2in 6TPI	5in≤OD≤8 5/8in 5TPI 8 5/8in<OD≤13 3/8in 4TPI

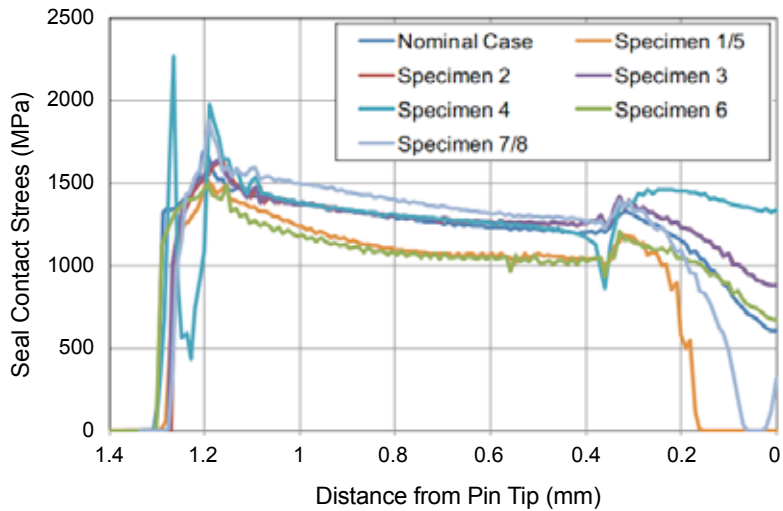
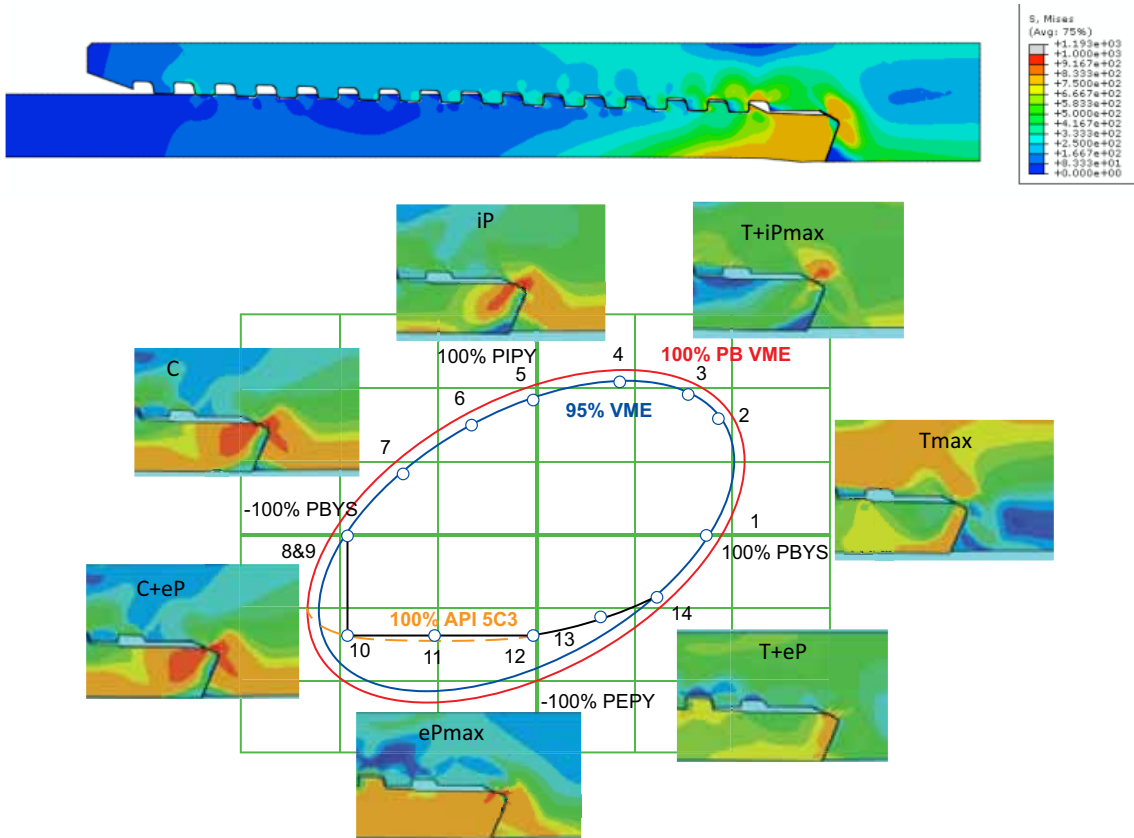
## 有限元计算

按照 Von Mises 等效应力包络线加载过程轨迹，计算不同复合工况条件下接头的应力分布，根据密封面接触压力大小及分布，对接头设计参数进行优化，确保接头结构完整性和密封完整性

## FEM Analyse

Optimizing design of threads and seal geometry with finite element analysis according to Von-Mises Envelope.

Effective Stress (MPa)



**宝钢 BGT2 特殊螺纹接头油套管使用性能 (英制)**  
Properties of Baosteel BGT2 premium connection tubing and casing (Imperial)

外径 Size (OD)	公称 重量 Nominal weight	壁厚 Wall thickness		通径 Drift	管体 截面积 Pipe body section	接头 / Coupling					抗挤强度 / Collapse pressure				
		类型 Type	外径 Coupling OD			长度 Coupling length	上扣损失 Make up loss	接头危险 截面积 CSS	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi		
in (mm)	lb/ft	in	mm	in	sq.in		in	in	in	sq.in	psi				
2 3/8 (60.33)	4.60	0.190	4.83	1.901	1.305	Normal	2.678	5.945	2.480	1.342	11780	13260	13990	16150	17930
	5.10	0.218	5.54	1.845	1.478	Normal	2.720	5.945	2.480	1.522	13340	15010	15850	18350	20850
	5.80	0.254	6.45	1.774	1.692	Normal	2.747	6.890	2.953	1.744	15280	17190	18150	21010	23880
	6.30	0.280	7.11	1.722	1.843	Normal	2.783	6.890	2.953	1.899	16640	18720	19760	22880	26000
	6.60	0.295	7.49	1.692	1.928	Normal	2.802	6.890	2.953	1.986	17410	19580	20670	23930	27200
	7.35	0.336	8.53	1.610	2.152	Normal	2.854	6.890	2.953	2.217	19430	21860	23080	26720	30360
2 7/8 (73.03)	6.40	0.217	5.51	2.348	1.811	Normal	3.224	6.260	2.559	1.866	11240	12380	12930	14540	16060
	7.80	0.276	7.01	2.230	2.254	Normal	3.278	7.402	3.220	2.322	13890	15620	16490	19090	21700
	8.60	0.308	7.82	2.166	2.484	Normal	3.323	7.402	3.220	2.559	15300	17220	18170	21040	23910
	9.35	0.340	8.64	2.101	2.708	Normal	3.367	7.402	3.220	2.788	16680	18770	19810	22940	26070
	9.80	0.362	9.19	2.058	2.858	Normal	3.396	7.402	3.220	2.943	17610	19810	20910	24210	27510
	10.50	0.392	9.96	1.997	3.058	Normal	3.435	7.402	3.220	3.150	18840	21200	22370	25910	29440
	10.70	0.405	10.29	1.971	3.143	Normal	3.451	7.402	3.220	3.238	19360	21780	22990	26630	30260
	11.50	0.440	11.18	1.901	3.366	Normal	3.476	8.110	3.567	3.467	20740	23330	24630	28520	32410
3 1/2 (88.90)	6.50	0.170	4.32	3.035	1.779	Normal	3.772	7.244	3.051	1.831	4640	4870	4960	5190	5520
	7.70	0.216	5.49	2.943	2.230	Normal	3.850	7.244	3.051	2.294	7880	8550	8870	9750	10510
	9.20	0.254	6.45	2.867	2.590	Normal	3.911	7.244	3.051	2.668	10530	11570	12070	13520	14890
	10.20	0.289	7.34	2.797	2.915	Normal	3.965	7.244	3.051	3.002	12120	13630	14390	17030	18940
	12.70	0.375	9.52	2.624	3.680	Normal	4.048	8.819	3.839	3.791	15300	17210	18170	21040	23900
	13.70	0.413	10.49	2.549	4.005	Normal	4.100	8.819	3.839	4.126	16650	18730	19770	22900	26020
	14.30	0.430	10.92	2.515	4.147	Normal	4.123	8.819	3.839	4.270	17240	19390	20470	23700	26940
	14.70	0.449	11.40	2.477	4.302	Normal	4.148	8.819	3.839	4.433	17890	20120	21240	24590	27950
	15.50	0.476	12.09	2.423	4.522	Normal	4.158	9.764	4.311	4.658	18800	21150	22330	25850	29380
	16.70	0.510	12.95	2.355	4.791	Normal	4.201	9.764	4.311	4.935	19920	22410	23650	27390	31120
4 (101.60)	8.20	0.190	4.83	3.494	2.274	Normal	4.301	7.559	3.209	2.342	4380	4560	4640	4940	5230
	9.50	0.226	5.74	3.423	2.680	Normal	4.363	7.559	3.209	2.761	6590	7080	7310	7910	8390
	10.90	0.262	6.65	3.351	3.077	Normal	4.422	7.559	3.209	3.170	8800	9600	9980	11060	12030
	12.10	0.299	7.59	3.277	3.476	Normal	4.481	7.559	3.209	3.581	11070	12180	12720	14290	15770
	13.20	0.330	8.38	3.215	3.805	Normal	4.528	7.559	3.209	3.920	12110	13620	14380	17000	18910
	14.80	0.380	9.65	3.115	4.322	Normal	4.556	9.291	4.091	4.452	13760	15480	16340	18910	21490
	16.10	0.415	10.54	3.045	4.674	Normal	4.606	9.291	4.091	4.814	14880	16740	17670	20460	23250
	16.50	0.430	10.92	3.015	4.823	Normal	4.627	9.291	4.091	4.968	15350	17270	18230	21110	23990
	18.90	0.500	12.70	2.875	5.498	Normal	4.702	10.079	4.469	5.662	17500	19690	20780	24060	27340
	22.20	0.610	15.49	2.655	6.496	Normal	4.840	10.079	4.469	6.691	20680	23260	24560	28430	32310



			抗拉屈服强度 / Yield strength									最小内屈服压力 / Minimum internal yield strength									
	140 ksi	150 ksi	155 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	140 ksi	150 ksi	155 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	140 ksi	150 ksi	155 ksi		
	psi			1000 lbs									psi								
	19620	20690	21210	104	117	124	144	163	183	196	202	11210	12610	13310	15410	17510	19620	21020	21720		
	23350	25020	25850	118	133	140	162	185	207	222	229	12860	14460	15270	17680	20090	22500	24110	24910		
	26740	28650	29610	135	152	161	186	211	237	254	262	14970	16840	17780	20590	23390	26200	28070	29010		
	29120	31200	32240	147	166	175	203	230	258	276	285	16510	18570	19600	22690	25790	28880	30950	31980		
	30460	32630	33720	154	173	183	212	241	270	289	299	17390	19560	20650	23910	27170	30430	32610	33690		
	34010	36440	37650	172	194	204	237	269	301	323	333	19810	22280	23520	27230	30950	34660	37140	38370		
	17490	18390	18820	145	163	172	199	226	253	272	281	10560	11880	12540	14520	16510	18490	19810	20470		
	24300	26040	26900	180	203	214	248	282	315	338	349	13440	15120	15960	18480	21000	23520	25200	26040		
	26780	28700	29650	199	223	236	273	310	348	372	385	15000	16870	17810	20620	23430	26250	28120	29060		
	29200	31280	32330	217	244	257	298	338	379	406	419	16560	18630	19660	22770	25870	28970	31040	32080		
	30820	33020	34120	229	257	271	314	357	400	428	443	17630	19830	20930	24240	27540	30850	33050	34150		
	32970	35330	36500	245	275	290	336	382	428	458	474	19090	21470	22670	26250	29830	33410	35790	36980		
	33890	36310	37520	251	283	298	346	393	440	471	487	19720	22190	23420	27120	30820	34510	36980	38210		
	36290	38890	40180	269	303	320	370	421	471	505	521	21430	24100	25440	29460	33480	37500	40170	41510		
	5750	5860	5900	142	160	169	196	222	249	267	276	6800	7650	8080	9350	10630	11910	12760	13180		
	11160	11530	11690	178	201	212	245	279	312	334	345	8650	9730	10270	11890	13510	15130	16210	16750		
	16150	16930	17310	207	233	246	285	324	362	388	401	10160	11430	12060	13970	15870	17780	19050	19680		
	20770	21940	22510	233	262	277	321	364	408	437	452	11560	13000	13730	15890	18060	20230	21670	22400		
	26770	28690	29640	294	331	349	405	460	515	552	570	14990	16870	17800	20610	23430	26240	28110	29050		
	29140	31220	32260	320	360	380	440	500	560	600	620	16520	18580	19620	22710	25810	28910	30970	32010		
	30170	32320	33400	332	373	394	456	518	580	622	642	17200	19350	20420	23650	26870	30090	32240	33320		
	31300	33540	34650	344	387	409	473	538	602	645	667	17950	20200	21320	24690	28050	31420	33660	34780		
	32900	35250	36430	362	407	429	497	565	633	678	701	19040	21420	22610	26180	29750	33320	35700	36890		
	34850	37340	38590	383	431	455	527	599	670	718	742	20400	22950	24230	28050	31880	35700	38250	39530		
	5430	5510	5530	182	205	216	250	284	318	341	352	6650	7480	7900	9140	10390	11640	12470	12880		
	8740	8900	8960	214	241	254	295	335	375	402	415	7910	8900	9390	10880	12360	13840	14830	15330		
	12890	13400	13640	246	277	292	338	384	431	461	477	9170	10320	10890	12610	14330	16050	17190	17770		
	17160	18030	18450	278	313	330	382	434	486	521	539	10470	11770	12430	14390	16350	18310	19620	20280		
	20740	21910	22480	304	342	361	418	475	532	570	589	11550	12990	13720	15880	18050	20210	21660	22380		
	24070	25790	26650	346	389	410	475	540	605	648	670	13300	14960	15790	18290	20780	23280	24940	25770		
	26040	27900	28830	374	420	444	514	584	654	701	724	14530	16340	17250	19970	22700	25420	27230	28140		
	26860	28780	29740	386	434	458	530	603	675	723	747	15050	16930	17870	20690	23520	26340	28220	29160		
	30630	32810	33910	440	495	522	604	687	769	824	852	17500	19690	20780	24060	27340	30630	32810	33910		
	36190	38770	40070	519	584	617	714	812	909	974	1006	21350	24020	25350	29360	33360	37360	40030	41370		

宝钢BGT2特殊螺纹接头油套管产品  
Baosteel BGT2 Premium Connection Tubing and Casing Product

外径 Size (OD)	公称 重量 Nominal weight	壁厚 Wall thickness		通径 Drift	管体 截面积 Pipe body section	接头 / Coupling					抗挤强度 / Collapse pressure				
						类型 Type	外径 Coupling OD	长度 Coupling length	上扣损失 Make up loss	接头危险 截面积 CSS	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi
in (mm)	lb/ft	in	mm	in	sq.in		in	in	in	sq.in	psi				
4 1/2 (114.30)	10.50	0.224	5.69	3.927	3.009	Normal	4.860	7.677	3.268	3.098	4940	5200	5310	5560	5830
	11.60	0.250	6.35	3.875	3.338	Normal	4.904	7.677	3.268	3.439	6350	6820	7030	7580	8000
	12.60	0.271	6.88	3.833	3.599	Normal	4.939	7.677	3.268	3.709	7490	8110	8400	9200	9880
	13.50	0.290	7.37	3.794	3.838	Normal	4.970	7.677	3.268	3.951	8550	9310	9680	10700	11620
	15.10	0.337	8.56	3.701	4.408	Normal	5.045	7.677	3.268	4.538	11100	12220	12770	14340	15830
	17.00	0.380	9.65	3.615	4.918	Normal	5.067	9.291	4.087	5.065	12370	13910	14690	17010	19690
	17.70	0.402	10.21	3.571	5.175	Normal	5.100	9.291	4.087	5.330	13020	14640	15460	17900	20340
	18.90	0.430	10.92	3.515	5.497	Normal	5.141	9.291	4.087	5.662	13830	15550	16420	19010	21600
	21.50	0.500	12.70	3.375	6.283	Normal	5.218	10.197	4.528	6.473	15800	17780	18770	21730	24690
	23.70	0.560	14.22	3.255	6.932	Normal	5.298	10.197	4.528	7.139	17430	19610	20700	23970	27240
5 (127.00)	15.00	0.296	7.52	4.283	4.375	Normal	5.728	10.118	4.441	6.799	7250	7840	8110	8860	9480
	15.00	0.296	7.52	4.283	4.375	SC100	5.465	10.118	4.441	4.481	7250	7840	8110	8860	9480
	15.00	0.296	7.52	4.283	4.375	SC90	5.417	10.118	4.441	4.078	7250	7840	8110	8860	9480
	18.00	0.362	9.19	4.151	5.272	Normal	5.728	10.118	4.441	6.799	10480	11510	12010	13460	14810
	18.00	0.362	9.19	4.151	5.272	SC100	5.575	10.118	4.441	5.436	10480	11510	12010	13460	14810
	18.00	0.362	9.19	4.151	5.272	SC90	5.512	10.118	4.441	4.888	10480	11510	12010	13460	14810
	21.40	0.437	11.10	4.001	6.265	Normal	5.728	10.118	4.441	6.799	12760	14360	15150	17550	19940
	21.40	0.437	11.10	4.001	6.265	SC100	5.689	10.118	4.441	6.446	12760	14360	15150	17550	19940
	21.40	0.437	11.10	4.001	6.265	SC90	5.618	10.118	4.441	5.817	12760	14360	15150	17550	19940
	23.20	0.478	12.14	3.919	6.790	Normal	5.827	10.118	4.441	7.692	13830	15560	16430	19020	21610
	23.20	0.478	12.14	3.919	6.790	SC100	5.748	10.118	4.441	6.976	13830	15560	16430	19020	21610
	23.20	0.478	12.14	3.919	6.790	SC90	5.673	10.118	4.441	6.306	13830	15560	16430	19020	21610
	24.10	0.500	12.70	3.875	7.069	Normal	5.827	10.118	4.441	7.692	14400	16200	17100	19800	22500
	24.10	0.500	12.70	3.875	7.069	SC100	5.780	10.118	4.441	7.261	14400	16200	17100	19800	22500
24.10	0.500	12.70	3.875	7.069	SC90	5.705	10.118	4.441	6.587	14400	16200	17100	19800	22500	
5 1/2 (139.70)	17.00	0.304	7.72	4.767	4.961	Normal	6.181	10.433	4.598	7.064	6280	6730	6940	7470	7880
	17.00	0.304	7.72	4.767	4.961	SC100	5.976	10.433	4.598	5.111	6280	6730	6940	7470	7880
	17.00	0.304	7.72	4.767	4.961	SC90	5.921	10.433	4.598	4.596	6280	6730	6940	7470	7880
	20.00	0.361	9.17	4.653	5.829	Normal	6.181	10.433	4.598	7.064	8830	9640	10020	11100	12090
	20.00	0.361	9.17	4.653	5.829	SC100	6.071	10.433	4.598	6.004	8830	9640	10020	11100	12090
	20.00	0.361	9.17	4.653	5.829	SC90	6.008	10.433	4.598	5.407	8830	9640	10020	11100	12090
	23.00	0.415	10.54	4.545	6.629	Normal	6.181	10.433	4.598	7.064	11240	12380	12930	14540	16060
	23.00	0.415	10.54	4.545	6.629	SC100	6.157	10.433	4.598	6.836	11240	12380	12930	14540	16060
	23.00	0.415	10.54	4.545	6.629	SC90	6.087	10.433	4.598	6.154	11240	12380	12930	14540	16060
	26.50	0.486	12.34	4.403	7.653	Normal	6.260	10.433	4.598	7.833	12880	14500	15300	17720	20130
	26.50	0.486	12.34	4.403	7.653	SC100	6.260	10.433	4.598	7.833	12880	14500	15300	17720	20130

				抗拉屈服强度 / Yield strength								最小内屈服压力 / Minimum internal yield strength							
	140 ksi	150 ksi	155 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	140 ksi	150 ksi	155 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	140 ksi	150 ksi	155 ksi
	psi			1000 lbs								psi							
	6110	6250	6300	241	271	286	331	376	421	451	466	6970	7840	8280	9580	10890	12200	13070	13500
	8300	8430	8470	267	300	317	367	417	467	500	517	7780	8750	9240	10690	12150	13610	14580	15070
	10440	10750	10880	288	324	342	396	450	504	540	558	8430	9480	10010	11590	13170	14750	15800	16330
	12420	12890	13110	307	345	364	422	479	537	575	595	9030	10160	10720	12410	14100	15800	16930	17490
	17230	18100	18520	352	396	419	485	551	617	661	683	10480	11800	12450	14420	16380	18350	19660	20310
	21630	22880	23480	393	442	467	541	614	688	737	762	11820	13300	14040	16250	18470	20680	22160	22900
	22780	25330	26030	414	466	491	569	647	724	776	802	12510	14070	14850	17200	19540	21880	23450	24230
	24190	25920	26790	440	494	522	604	687	769	824	852	13380	15050	15880	18390	20900	23410	25080	25910
	27650	29630	30620	502	565	597	691	785	879	942	973	15560	17500	18470	21390	24310	27220	29170	30140
	30510	32690	33780	554	624	658	762	866	970	1039	1074	17420	19600	20690	23960	27220	30490	32670	33760
	9990	10260	10370	350	394	415	481	547	612	656	678	8290	9330	9840	11400	12950	14510	15540	16060
	9990	10260	10370	350	394	415	481	547	612	656	678	8290	9330	9840	11400	12950	14510	15540	16060
	9990	10260	10370	315	354	374	433	492	551	590	610	8290	9330	9840	11400	12950	14510	15540	16060
	16060	16840	17210	422	474	501	580	659	738	790	817	10130	11400	12030	13930	15830	17730	19000	19630
	16060	16840	17210	422	474	501	580	659	738	790	817	10130	11400	12030	13930	15830	17730	19000	19630
	16060	16840	17210	379	427	451	522	593	664	711	735	10130	11400	12030	13930	15830	17730	19000	19630
	23000	24370	25030	501	564	595	689	783	877	939	971	12240	13770	14530	16820	19120	21410	22940	23710
	23000	24370	25030	501	564	595	689	783	877	939	971	12240	13770	14530	16820	19120	21410	22940	23710
	23000	24370	25030	451	507	535	620	704	789	845	873	12240	13770	14530	16820	19120	21410	22940	23710
	24210	25940	26800	543	611	645	747	848	950	1018	1052	13380	15060	15890	18400	20910	23420	25090	25930
	24210	25940	26800	543	611	645	747	848	950	1018	1052	13380	15060	15890	18400	20910	23420	25090	25930
	24210	25940	26800	489	550	580	672	763	855	916	947	13380	15060	15890	18400	20910	23420	25090	25930
	25200	27000	27900	565	636	671	777	883	989	1060	1095	14000	15750	16630	19250	21880	24500	26250	27130
	25200	27000	27900	565	636	671	777	883	989	1060	1095	14000	15750	16630	19250	21880	24500	26250	27130
	25200	27000	27900	509	572	604	699	795	890	954	986	14000	15750	16630	19250	21880	24500	26250	27130
	8170	8280	8310	397	446	471	545	620	694	744	769	7740	8700	9190	10640	12090	13540	14510	14990
	8170	8280	8310	397	446	471	545	620	694	744	769	7740	8700	9190	10640	12090	13540	14510	14990
	8170	8280	8310	357	402	424	491	558	625	669	692	7740	8700	9190	10640	12090	13540	14510	14990
	12960	13470	13710	466	524	553	641	728	816	874	903	9190	10340	10910	12640	14360	16080	17230	17810
	12960	13470	13710	466	524	553	641	728	816	874	903	9190	10340	10910	12640	14360	16080	17230	17810
	12960	13470	13710	419	472	498	577	655	734	786	813	9190	10340	10910	12640	14360	16080	17230	17810
	17490	18380	18810	530	596	629	729	828	928	994	1027	10560	11880	12540	14520	16500	18480	19800	20470
	17490	18380	18810	530	596	629	729	828	928	994	1027	10560	11880	12540	14520	16500	18480	19800	20470
	17490	18380	18810	477	537	566	656	745	835	894	924	10560	11880	12540	14520	16500	18480	19800	20470
	22550	24830	25510	612	688	727	841	956	1071	1147	1186	12370	13910	14690	17000	19320	21640	23190	23960
	22550	24830	25510	612	688	727	841	956	1071	1147	1186	12370	13910	14690	17000	19320	21640	23190	23960

宝钢BGT2特殊螺纹接头油套管产品  
Baosteel BGT2 Premium Connection Tubing and Casing Product

外径 Size (OD)	公称 重量 Nominal weight	壁厚 Wall thickness		通径 Drift	管体 截面积 Pipe body section	接头 / Coupling					抗挤强度 / Collapse pressure				
						类型 Type	外径 Coupling OD	长度 Coupling length	上扣损失 Make up loss	接头危险 截面积 CSS	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi
in (mm)	lb/ft	in	mm	in	sq.in		in	in	in	sq.in	psi				
5 1/2 (139.70)	26.80	0.500	12.70	4.375	7.854	Normal	6.461	10.433	4.598	9.838	13220	14880	15700	18180	20660
	26.80	0.500	12.70	4.375	7.854	SC100	6.287	10.433	4.598	8.105	13220	14880	15700	18180	20660
	26.80	0.500	12.70	4.375	7.854	SC90	6.205	10.433	4.598	7.294	13220	14880	15700	18180	20660
	29.70	0.562	14.27	4.251	8.716	Normal	6.461	10.433	4.598	9.838	14670	16510	17430	20180	22930
	29.70	0.562	14.27	4.251	8.716	SC100	6.374	10.433	4.598	8.966	14670	16510	17430	20180	22930
	29.70	0.562	14.27	4.251	8.716	SC90	6.287	10.433	4.598	8.105	14670	16510	17430	20180	22930
	32.60	0.625	15.88	4.125	9.575	Normal	6.461	10.433	4.598	9.838	16120	18140	19140	22170	25190
	32.60	0.625	15.88	4.125	9.575	SC100	6.461	10.433	4.598	9.838	16120	18140	19140	22170	25190
	32.60	0.625	15.88	4.125	9.575	SC90	6.406	10.433	4.598	9.282	16120	18140	19140	22170	25190
7 (177.80)	23.00	0.317	8.05	6.241	6.654	Normal	7.756	11.614	4.823	9.949	3830	4020	4140	4440	4640
	23.00	0.317	8.05	6.241	6.654	SC100	7.496	11.614	4.823	6.838	3830	4020	4140	4440	4640
	23.00	0.317	8.05	6.241	6.654	SC90	7.441	11.614	4.823	6.192	3830	4020	4140	4440	4640
	26.00	0.362	9.19	6.151	7.545	Normal	7.756	11.614	4.823	9.949	5400	5730	5880	6220	6440
	26.00	0.362	9.19	6.151	7.545	SC100	7.575	11.614	4.823	7.770	5400	5730	5880	6220	6440
	26.00	0.362	9.19	6.151	7.545	SC90	7.512	11.614	4.823	7.024	5400	5730	5880	6220	6440
	29.00	0.408	10.36	6.059	8.447	Normal	7.756	11.614	4.823	9.949	7020	7570	7830	8530	9100
	29.00	0.408	10.36	6.059	8.447	SC100	7.654	11.614	4.823	8.711	7020	7570	7830	8530	9100
	29.00	0.408	10.36	6.059	8.447	SC90	7.583	11.614	4.823	7.864	7020	7570	7830	8530	9100
	32.00	0.453	11.51	5.969	9.320	Normal	7.875	11.614	4.823	11.413	8610	9380	9750	10790	11720
	32.00	0.453	11.51	5.969	9.320	SC100	7.728	11.614	4.823	9.614	8610	9380	9750	10790	11720
	32.00	0.453	11.51	5.969	9.320	SC90	7.650	11.614	4.823	8.664	8610	9380	9750	10790	11720
	35.00	0.498	12.65	5.879	10.173	Normal	7.875	11.614	4.823	11.413	10190	11170	11650	13030	14320
	35.00	0.498	12.65	5.879	10.173	SC100	7.799	11.614	4.823	10.478	10190	11170	11650	13030	14320
	35.00	0.498	12.65	5.879	10.173	SC90	7.717	11.614	4.823	9.471	10190	11170	11650	13030	14320
38.00	0.540	13.72	5.795	10.962	Normal	7.875	11.614	4.823	11.413	11390	12860	13440	15140	16750	
38.00	0.540	13.72	5.795	10.962	SC100	7.875	11.614	4.823	11.413	11390	12860	13440	15140	16750	
38.00	0.540	13.72	5.795	10.962	SC90	7.776	11.614	4.823	10.189	11390	12860	13440	15140	16750	
7 3/4 (196.85)	39.00	0.500	12.70	6.625	11.388	Normal	8.622	11.811	4.921	12.785	8560	9320	9690	10710	11630
	39.00	0.500	12.70	6.625	11.388	SC100	8.543	11.811	4.921	11.724	8560	9320	9690	10710	11630
	39.00	0.500	12.70	6.625	11.388	SC95	8.500	11.811	4.921	11.144	8560	9320	9690	10710	11630
	39.00	0.500	12.70	6.625	11.388	SC90	8.457	11.811	4.921	10.568	8560	9320	9690	10710	11630
	46.10	0.595	15.11	6.435	13.372	Normal	8.750	11.811	4.921	14.529	11340	12740	13320	14990	16590
	46.10	0.595	15.11	6.435	13.372	SC100	8.693	11.811	4.921	13.748	11340	12740	13320	14990	16590
	46.10	0.595	15.11	6.435	13.372	SC90	8.594	11.811	4.921	12.412	11340	12740	13320	14990	16590
7 7/8 (200.03)	34.40	0.430	10.92	6.890	10.056	Normal	8.750	11.969	5.039	12.943	6120	6550	6740	7240	7610
	34.40	0.430	10.92	6.890	10.056	SC100	8.559	11.969	5.039	10.348	6120	6550	6740	7240	7610
	34.40	0.430	10.92	6.890	10.056	SC90	8.484	11.969	5.039	9.348	6120	6550	6740	7240	7610

				抗拉屈服强度 / Yield strength								最小内屈服压力 / Minimum internal yield strength							
	140 ksi	150 ksi	155 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	140 ksi	150 ksi	155 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	140 ksi	150 ksi	155 ksi
	psi			1000 lbs								psi							
	23140	24790	25620	628	707	746	864	981	1099	1178	1217	12730	14320	15110	17500	19890	22270	23860	24660
	23140	24790	25620	628	707	746	864	981	1099	1178	1217	12730	14320	15110	17500	19890	22270	23860	24660
	23140	24790	25620	565	636	671	777	883	989	1060	1095	12730	14320	15110	17500	19890	22270	23860	24660
	25680	27510	28430	697	784	828	958	1089	1220	1307	1350	14300	16090	16980	19660	22340	25030	26810	27710
	25680	27510	28430	697	784	828	958	1089	1220	1307	1350	14300	16090	16980	19660	22340	25030	26810	27710
	25680	27510	28430	627	706	745	862	980	1098	1176	1215	14300	16090	16980	19660	22340	25030	26810	27710
	28210	30230	31230	766	861	909	1053	1196	1340	1435	1483	15910	17900	18900	21880	24870	27850	29840	30830
	28210	30230	31230	766	861	909	1053	1196	1340	1435	1483	15910	17900	18900	21880	24870	27850	29840	30830
	28210	30230	31230	689	775	818	947	1077	1206	1292	1335	15910	17900	18900	21880	24870	27850	29840	30830
	4760	4780	4780	532	599	632	732	831	931	998	1031	6340	7130	7530	8720	9900	11090	11880	12280
	4760	4780	4780	532	599	632	732	831	931	998	1031	6340	7130	7530	8720	9900	11090	11880	12280
	4760	4780	4780	479	539	569	658	748	838	898	928	6340	7130	7530	8720	9900	11090	11880	12280
	6680	6870	6950	603	679	716	830	943	1056	1131	1169	7240	8140	8590	9950	11310	12660	13570	14020
	6680	6870	6950	603	679	716	830	943	1056	1131	1169	7240	8140	8590	9950	11310	12660	13570	14020
	6680	6870	6950	543	611	645	747	848	950	1018	1052	7240	8140	8590	9950	11310	12660	13570	14020
	9560	9790	9880	675	760	802	929	1055	1182	1266	1309	8160	9180	9690	11220	12750	14280	15300	15810
	9560	9790	9880	675	760	802	929	1055	1182	1266	1309	8160	9180	9690	11220	12750	14280	15300	15810
	9560	9790	9880	608	684	722	836	950	1064	1140	1178	8160	9180	9690	11220	12750	14280	15300	15810
	12540	13020	13240	745	838	885	1025	1164	1304	1397	1444	9060	10200	10760	12460	14160	15860	16990	17560
	12540	13020	13240	745	838	885	1025	1164	1304	1397	1444	9060	10200	10760	12460	14160	15860	16990	17560
	12540	13020	13240	671	755	796	922	1048	1174	1258	1300	9060	10200	10760	12460	14160	15860	16990	17560
	15500	16230	16580	813	915	966	1118	1271	1424	1525	1576	9960	11210	11830	13700	15560	17430	18680	19300
	15500	16230	16580	813	915	966	1118	1271	1424	1525	1576	9960	11210	11830	13700	15560	17430	18680	19300
	15500	16230	16580	732	824	869	1007	1144	1281	1373	1418	9960	11210	11830	13700	15560	17430	18680	19300
	18280	19240	19710	877	986	1041	1205	1370	1534	1643	1698	10800	12150	12830	14850	16880	18910	20260	20930
	18280	19240	19710	877	986	1041	1205	1370	1534	1643	1698	10800	12150	12830	14850	16880	18910	20260	20930
	18280	19240	19710	789	887	937	1085	1233	1381	1479	1528	10800	12150	12830	14850	16880	18910	20260	20930
	12440	12910	13130	911	1024	1081	1252	1423	1594	1707	1764	9030	10160	10730	12420	14110	15810	16940	17500
	12440	12910	13130	911	1024	1081	1252	1423	1594	1707	1764	9030	10160	10730	12420	14110	15810	16940	17500
	12440	12910	13130	865	973	1027	1189	1352	1514	1622	1676	9030	10160	10730	12420	14110	15810	16940	17500
	12440	12910	13130	820	922	973	1127	1281	1434	1537	1588	9030	10160	10730	12420	14110	15810	16940	17500
	18090	19040	19490	1069	1203	1270	1470	1671	1871	2005	2072	10750	12090	12760	14780	16790	18810	20150	20820
	18090	19040	19490	1069	1203	1270	1470	1671	1871	2005	2072	10750	12090	12760	14780	16790	18810	20150	20820
	18090	19040	19490	962	1083	1143	1323	1504	1684	1804	1864	10750	12090	12760	14780	16790	18810	20150	20820
	7860	7950	7970	804	905	955	1106	1256	1407	1508	1558	7640	8600	9080	10510	11940	13380	14330	14810
	7860	7950	7970	804	905	955	1106	1256	1407	1508	1558	7640	8600	9080	10510	11940	13380	14330	14810
	7860	7950	7970	724	814	859	995	1131	1266	1357	1402	7640	8600	9080	10510	11940	13380	14330	14810

宝钢BGT2特殊螺纹接头油套管产品  
Baosteel BGT2 Premium Connection Tubing and Casing Product

外径 Size (OD)	公称 重量 Nominal weight	壁厚 Wall thickness		通径 Drift	管体 截面积 Pipe body section	接头 / Coupling					抗挤强度 / Collapse pressure				
						类型 Type	外径 Coupling OD	长度 Coupling length	上扣损失 Make up loss	接头危险 截面积 CSS	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi
in (mm)	lb/ft	in	mm	in	sq.in		in	in	in	sq.in	psi				
9 5/8 (244.48)	40.00	0.395	10.03	8.679	11.450	Normal	10.625	12.992	5.660	17.635	3080	3250	3320	3470	3530
	40.00	0.395	10.03	8.679	11.450	SC100	10.268	12.992	5.660	11.772	3080	3250	3320	3470	3530
	40.00	0.395	10.03	8.679	11.450	SC90	10.197	12.992	5.660	10.634	3080	3250	3320	3470	3530
	43.50	0.435	11.05	8.599	12.560	Normal	10.625	12.992	5.660	17.635	3810	4010	4130	4420	4620
	43.50	0.435	11.05	8.599	12.560	SC100	10.339	12.992	5.660	12.918	3810	4010	4130	4420	4620
	43.50	0.435	11.05	8.599	12.560	SC90	10.260	12.992	5.660	11.645	3810	4010	4130	4420	4620
	47.00	0.472	11.99	8.525	13.574	Normal	10.625	12.992	5.660	17.635	4760	5000	5090	5300	5640
	47.00	0.472	11.99	8.525	13.574	SC100	10.402	12.992	5.660	13.944	4760	5000	5090	5300	5640
	47.00	0.472	11.99	8.525	13.574	SC90	10.319	12.992	5.660	12.599	4760	5000	5090	5300	5640
	53.50	0.545	13.84	8.379	15.543	Normal	10.625	12.992	5.660	17.635	6610	7110	7340	7950	8430
	53.50	0.545	13.84	8.379	15.543	SC100	10.528	12.992	5.660	16.014	6610	7110	7340	7950	8430
	53.50	0.545	13.84	8.379	15.543	SC90	10.433	12.992	5.660	14.459	6610	7110	7340	7950	8430
	58.40	0.595	15.11	8.279	16.876	Normal	10.625	12.992	5.660	17.635	7890	8560	8880	9760	10530
	58.40	0.595	15.11	8.279	16.876	SC100	10.622	12.992	5.660	17.583	7890	8560	8880	9760	10530
58.40	0.595	15.11	8.279	16.876	SC90	10.508	12.992	5.660	15.689	7890	8560	8880	9760	10530	
10 3/4 (273.05)	45.50	0.400	10.16	9.794	13.006	Normal	11.750	12.992	5.660	19.606	2470	2560	2590	2610	2610
	45.50	0.400	10.16	9.794	13.006	SC100	11.409	12.992	5.660	13.414	2470	2560	2590	2610	2610
	45.50	0.400	10.16	9.794	13.006	SC90	11.339	12.992	5.660	12.149	2470	2560	2590	2610	2610
	51.00	0.450	11.43	9.694	14.561	Normal	11.750	12.992	5.660	19.606	3220	3400	3480	3660	3740
	51.00	0.450	11.43	9.694	14.561	SC100	11.496	12.992	5.660	14.972	3220	3400	3480	3660	3740
	51.00	0.450	11.43	9.694	14.561	SC90	11.417	12.992	5.660	13.555	3220	3400	3480	3660	3740
	55.50	0.495	12.57	9.604	15.944	Normal	11.750	12.992	5.660	19.606	4020	4160	4290	4610	4840
	55.50	0.495	12.57	9.604	15.944	SC100	11.575	12.992	5.660	16.398	4020	4160	4290	4610	4840
	55.50	0.495	12.57	9.604	15.944	SC90	11.488	12.992	5.660	14.830	4020	4160	4290	4610	4840
	60.70	0.545	13.84	9.504	17.469	Normal	11.750	12.992	5.660	19.606	5160	5460	5580	5870	6070
	60.70	0.545	13.84	9.504	17.469	SC100	11.661	12.992	5.660	17.978	5160	5460	5580	5870	6070
	60.70	0.545	13.84	9.504	17.469	SC90	11.563	12.992	5.660	16.183	5160	5460	5580	5870	6070
	65.70	0.595	15.11	9.404	18.979	Normal	11.750	12.992	5.660	19.606	6300	6760	6960	7500	7920
	65.70	0.595	15.11	9.404	18.979	SC100	11.748	12.992	5.660	19.569	6300	6760	6960	7500	7920
65.70	0.595	15.11	9.404	18.979	SC90	11.642	12.992	5.660	17.617	6300	6760	6960	7500	7920	
13 3/4 (339.73)	54.5	0.380	9.65	12.459	15.510	Normal	14.375	13.386	5.682	24.122	1140	1140	1140	1140	1140
	54.5	0.380	9.65	12.459	15.510	SC100	14.008	13.386	5.682	15.938	1140	1140	1140	1140	1140
	54.5	0.380	9.65	12.459	15.510	SC90	13.937	13.386	5.682	14.383	1140	1140	1140	1140	1140
	61.0	0.430	10.92	12.359	17.484	Normal	14.375	13.386	5.682	24.122	1660	1660	1660	1660	1660
	61.0	0.430	10.92	12.359	17.484	SC100	14.102	13.386	5.682	18.023	1660	1660	1660	1660	1660
	61.0	0.430	10.92	12.359	17.484	SC90	14.024	13.386	5.682	16.284	1660	1660	1660	1660	1660
	68.0	0.480	12.19	12.259	19.442	Normal	14.375	13.386	5.682	24.122	2260	2320	2330	2330	2330
	68.0	0.480	12.19	12.259	19.442	SC100	14.193	13.386	5.682	20.034	2260	2320	2330	2330	2330
	68.0	0.480	12.19	12.259	19.442	SC90	14.106	13.386	5.682	18.110	2260	2320	2330	2330	2330
	72.0	0.514	13.06	12.190	20.774	Normal	14.375	13.386	5.682	24.122	2670	2780	2820	2880	2880
	72.0	0.514	13.06	12.190	20.774	SC100	14.252	13.386	5.682	21.353	2670	2780	2820	2880	2880
	72.0	0.514	13.06	12.190	20.774	SC90	14.157	13.386	5.682	19.246	2670	2780	2820	2880	2880

注：Normal 指常规接箍外径，连接强度接头大于管体。接头类型为 Normal、SC100 或 SC90 的相同规格接头可互换。

SC：接箍特殊外径。SC100：接头拉伸效率为管体 100%；SC90：接头拉伸效率为管体 90%。

Normal:Tensile efficiency of connection greater than pipe body; Special Clearance(SC). SC100: 100% Tensile efficiency of the connection; SC90: 90% Tensile efficiency of the connection.

			抗拉屈服强度 / Yield strength									最小内屈服压力 / Minimum internal yield strength								
	140 ksi	150 ksi	155 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	140 ksi	150 ksi	155 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	140 ksi	150 ksi	155 ksi	
psi			1000 lbs									psi								
3530	3530	3530	916	1030	1087	1259	1431	1602	1717	1774	5740	6460	6820	7900	8970	10050	10770	11130		
3530	3530	3530	916	1030	1087	1259	1431	1602	1717	1774	5740	6460	6820	7900	8970	10050	10770	11130		
3530	3530	3530	824	927	979	1133	1288	1442	1545	1597	5740	6460	6820	7900	8970	10050	10770	11130		
4730	4760	4760	1004	1130	1193	1381	1569	1758	1883	1946	6330	7120	7510	8700	9890	11070	11860	12260		
4730	4760	4760	1004	1130	1193	1381	1569	1758	1883	1946	6330	7120	7510	8700	9890	11070	11860	12260		
4730	4760	4760	904	1017	1073	1243	1412	1582	1695	1751	6330	7120	7510	8700	9890	11070	11860	12260		
5890	6010	6050	1085	1221	1289	1492	1696	1899	2035	2103	6870	7720	8150	9440	10730	12020	12870	13300		
5890	6010	6050	1085	1221	1289	1492	1696	1899	2035	2103	6870	7720	8150	9440	10730	12020	12870	13300		
5890	6010	6050	977	1099	1160	1343	1526	1709	1832	1893	6870	7720	8150	9440	10730	12020	12870	13300		
8790	8960	9020	1243	1398	1476	1709	1942	2175	2330	2408	7930	8920	9410	10900	12380	13870	14860	15360		
8790	8960	9020	1243	1398	1476	1709	1942	2175	2330	2408	7930	8920	9410	10900	12380	13870	14860	15360		
8790	8960	9020	1119	1258	1328	1538	1748	1957	2097	2167	7930	8920	9410	10900	12380	13870	14860	15360		
11190	11560	11720	1349	1518	1602	1855	2108	2361	2530	2614	8650	9730	10280	11900	13520	15140	16220	16760		
11190	11560	11720	1349	1518	1602	1855	2108	2361	2530	2614	8650	9730	10280	11900	13520	15140	16220	16760		
11190	11560	11720	1214	1366	1442	1670	1898	2125	2277	2353	8650	9730	10280	11900	13520	15140	16220	16760		
2610	2610	2610	1040	1170	1235	1430	1625	1820	1950	2015	5210	5860	6190	7160	8140	9120	9770	10090		
2610	2610	2610	1040	1170	1235	1430	1625	1820	1950	2015	5210	5860	6190	7160	8140	9120	9770	10090		
2610	2610	2610	936	1053	1111	1287	1462	1638	1755	1813	5210	5860	6190	7160	8140	9120	9770	10090		
3750	3750	3750	1164	1310	1383	1601	1819	2038	2183	2256	5860	6590	6960	8060	9160	10260	10990	11350		
3750	3750	3750	1164	1310	1383	1601	1819	2038	2183	2256	5860	6590	6960	8060	9160	10260	10990	11350		
3750	3750	3750	1048	1179	1244	1441	1637	1834	1965	2030	5860	6590	6960	8060	9160	10260	10990	11350		
4990	5030	5030	1275	1434	1514	1753	1992	2231	2390	2470	6440	7250	7650	8860	10070	11280	12080	12490		
4990	5030	5030	1275	1434	1514	1753	1992	2231	2390	2470	6440	7250	7650	8860	10070	11280	12080	12490		
4990	5030	5030	1147	1291	1363	1578	1793	2008	2151	2223	6440	7250	7650	8860	10070	11280	12080	12490		
6380	6550	6610	1397	1571	1659	1921	2183	2444	2619	2706	7100	7980	8430	9760	11090	12420	13310	13750		
6380	6550	6610	1397	1571	1659	1921	2183	2444	2619	2706	7100	7980	8430	9760	11090	12420	13310	13750		
6380	6550	6610	1257	1414	1493	1729	1964	2200	2357	2436	7100	7980	8430	9760	11090	12420	13310	13750		
8200	8320	8350	1518	1707	1802	2087	2371	2656	2845	2940	7750	8720	9200	10650	12110	13560	14530	15010		
8200	8320	8350	1518	1707	1802	2087	2371	2656	2845	2940	7750	8720	9200	10650	12110	13560	14530	15010		
8200	8320	8350	1366	1536	1622	1878	2134	2390	2561	2646	7750	8720	9200	10650	12110	13560	14530	15010		
1140	1140	1140	1240	1395	1473	1705	1938	2170	2325	2403	3980	4470	4720	5470	6210	6960	7460	7700		
1140	1140	1140	1240	1395	1473	1705	1938	2170	2325	2403	3980	4470	4720	5470	6210	6960	7460	7700		
1140	1140	1140	1116	1256	1325	1535	1744	1953	2093	2163	3980	4470	4720	5470	6210	6960	7460	7700		
1660	1660	1660	1398	1573	1660	1922	2184	2447	2621	2709	4500	5060	5340	6190	7030	7880	8440	8720		
1660	1660	1660	1398	1573	1660	1922	2184	2447	2621	2709	4500	5060	5340	6190	7030	7880	8440	8720		
1660	1660	1660	1258	1415	1494	1730	1966	2202	2359	2438	4500	5060	5340	6190	7030	7880	8440	8720		
2330	2330	2330	1555	1749	1846	2138	2429	2721	2915	3012	5020	5650	5970	6910	7850	8790	9420	9730		
2330	2330	2330	1555	1749	1846	2138	2429	2721	2915	3012	5020	5650	5970	6910	7850	8790	9420	9730		
2330	2330	2330	1399	1574	1661	1924	2186	2448	2623	2711	5020	5650	5970	6910	7850	8790	9420	9730		
2880	2880	2880	1661	1869	1973	2284	2595	2907	3115	3218	5380	6050	6390	7400	8410	9420	10090	10430		
2880	2880	2880	1661	1869	1973	2284	2595	2907	3115	3218	5380	6050	6390	7400	8410	9420	10090	10430		
2880	2880	2880	1495	1682	1775	2056	2336	2616	2803	2897	5380	6050	6390	7400	8410	9420	10090	10430		

**宝钢 BGT2 特殊螺纹接头油套管使用性能 (公制)**  
Properties of Baosteel BGT2 premium connection tubing (Metric)

外径 Size (OD)	公称 重量 Nominal weight	壁厚 Wall thickness		通径 Drift	管体 截面积 Pipe body section	接头 / Coupling					抗挤强度 / Collapse pressure				
		类型 Type	外径 Coupling OD			长度 Coupling length	上扣损失 Make up loss	接头危险 截面积 CSS	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi		
in (mm)	lb/ft	in	mm	mm	sq.mm		mm	mm	mm	sq.mm	MPa				
2 3/8 (60.33)	4.60	0.190	4.83	48.29	842.08	Normal	68.02	151.00	63.00	866.00	81.2	91.4	96.5	111.4	123.6
	5.10	0.218	5.54	46.87	953.50	Normal	69.09	151.00	63.00	982.00	92.0	103.5	109.3	126.5	143.8
	5.80	0.254	6.45	45.05	1091.92	Normal	69.77	175.00	75.00	1125.00	105.4	118.5	125.1	144.9	164.7
	6.30	0.280	7.11	43.73	1188.94	Normal	70.68	175.00	75.00	1225.00	114.7	129.1	136.2	157.8	179.3
	6.60	0.295	7.49	42.97	1243.66	Normal	71.18	175.00	75.00	1281.00	120.0	135.0	142.5	165.0	187.5
	7.35	0.336	8.53	40.89	1388.59	Normal	72.50	175.00	75.00	1430.00	134.0	150.7	159.1	184.2	209.3
2 7/8 (73.03)	6.40	0.217	5.51	59.63	1168.70	Normal	81.89	159.00	65.00	1204.00	77.5	85.4	89.2	100.3	110.7
	7.80	0.276	7.01	56.63	1453.89	Normal	83.25	188.00	81.80	1498.00	95.8	107.7	113.7	131.6	149.6
	8.60	0.308	7.82	55.01	1602.48	Normal	84.41	188.00	81.80	1651.00	105.5	118.7	125.3	145.1	164.9
	9.35	0.340	8.64	53.37	1746.92	Normal	85.52	188.00	81.80	1799.00	115.0	129.4	136.6	158.2	179.8
	9.80	0.362	9.19	52.27	1843.82	Normal	86.26	188.00	81.80	1899.00	121.4	136.6	144.2	166.9	189.7
	10.50	0.392	9.96	50.73	1972.79	Normal	87.24	188.00	81.80	2032.00	129.9	146.2	154.2	178.6	203.0
	10.70	0.405	10.29	50.07	2027.54	Normal	87.65	188.00	81.80	2089.00	133.5	150.2	158.5	183.6	208.6
	11.50	0.440	11.18	48.29	2171.55	Normal	88.29	206.00	90.60	2237.00	143.0	160.9	169.8	196.6	223.5
3 1/2 (88.90)	6.50	0.170	4.32	77.08	1147.89	Normal	95.81	184.00	77.50	1181.00	32.0	33.6	34.2	35.8	38.1
	7.70	0.216	5.49	74.74	1438.60	Normal	97.78	184.00	77.50	1480.00	54.3	59.0	61.2	67.2	72.5
	9.20	0.254	6.45	72.82	1670.71	Normal	99.33	184.00	77.50	1721.00	72.6	79.8	83.2	93.2	102.7
	10.20	0.289	7.34	71.04	1880.72	Normal	100.71	184.00	77.50	1937.00	83.6	94.0	99.2	117.4	130.6
	12.70	0.375	9.52	66.66	2374.09	Normal	102.83	224.00	97.50	2446.00	105.5	118.7	125.3	145.1	164.8
	13.70	0.413	10.49	64.74	2584.03	Normal	104.15	224.00	97.50	2662.00	114.8	129.1	136.3	157.9	179.4
	14.30	0.430	10.92	63.88	2675.20	Normal	104.72	224.00	97.50	2755.00	118.9	133.7	141.1	163.4	185.8
	14.70	0.449	11.40	62.92	2775.60	Normal	105.36	224.00	97.50	2860.00	123.4	138.7	146.4	169.5	192.7
	15.50	0.476	12.09	61.54	2917.47	Normal	105.62	248.00	109.50	3005.00	129.6	145.8	154.0	178.2	202.6
	16.70	0.510	12.95	59.82	3090.71	Normal	106.70	248.00	109.50	3184.00	137.3	154.5	163.1	188.9	214.6
4 (101.60)	8.20	0.190	4.83	88.76	1467.22	Normal	109.24	192.00	81.50	1511.00	30.2	31.4	32.0	34.1	36.1
	9.50	0.226	5.74	86.94	1728.73	Normal	110.81	192.00	81.50	1781.00	45.4	48.8	50.4	54.5	57.8
	10.90	0.262	6.65	85.12	1984.99	Normal	112.31	192.00	81.50	2045.00	60.7	66.2	68.8	76.3	82.9
	12.10	0.299	7.59	83.24	2242.89	Normal	113.81	192.00	81.50	2310.00	76.3	84.0	87.7	98.5	108.7
	13.20	0.330	8.38	81.66	2454.69	Normal	115.02	192.00	81.50	2529.00	83.5	93.9	99.2	117.2	130.4
	14.80	0.380	9.65	79.12	2788.11	Normal	115.71	236.00	103.90	2872.00	94.9	106.7	112.7	130.4	148.2
	16.10	0.415	10.54	77.34	3015.47	Normal	117.00	236.00	103.90	3106.00	102.6	115.4	121.8	141.1	160.3
	16.50	0.430	10.92	76.58	3111.39	Normal	117.53	236.00	103.90	3205.00	105.8	119.1	125.7	145.6	165.4
	18.90	0.500	12.70	73.02	3546.95	Normal	119.44	256.00	113.50	3653.00	120.7	135.8	143.3	165.9	188.5
	22.20	0.610	15.49	67.44	4191.28	Normal	122.93	256.00	113.50	4317.00	142.6	160.4	169.3	196.0	222.8



			抗拉屈服强度 / Yield strength									最小内屈服压力 / Minimum internal yield strength									
	140 ksi	150 ksi	155 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	140 ksi	150 ksi	155 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	140 ksi	150 ksi	155 ksi		
	MPa			kN									MPa								
	135.3	142.7	146.2	464	522	551	638	725	812	870	899	77.3	86.9	91.8	106.3	120.7	135.3	144.9	149.8		
	161.0	172.5	178.2	526	591	624	723	821	920	986	1018	88.7	99.7	105.3	121.9	138.5	155.1	166.2	171.8		
	184.4	197.5	204.2	602	677	715	828	941	1053	1129	1166	103.2	116.1	122.6	142.0	161.3	180.6	193.5	200.0		
	200.8	215.1	222.3	655	737	778	901	1024	1147	1229	1270	113.8	128.0	135.1	156.4	177.8	199.1	213.4	220.5		
	210.0	225.0	232.5	686	771	814	943	1071	1200	1286	1328	119.9	134.9	142.4	164.9	187.3	209.8	224.8	232.3		
	234.5	251.3	259.6	766	861	909	1053	1196	1340	1435	1483	136.6	153.6	162.2	187.8	213.4	239.0	256.1	264.6		
	120.6	126.8	129.8	644	725	765	886	1007	1128	1208	1248	72.8	81.9	86.5	100.1	113.8	127.5	136.6	141.1		
	167.5	179.5	185.5	802	902	952	1102	1252	1403	1503	1553	92.7	104.3	110.0	127.4	144.8	162.2	173.8	179.5		
	184.6	197.9	204.4	883	994	1049	1215	1380	1546	1656	1712	103.4	116.3	122.8	142.2	161.5	181.0	193.9	200.4		
	201.3	215.7	222.9	963	1083	1144	1324	1505	1685	1806	1866	114.2	128.5	135.6	157.0	178.4	199.7	214.0	221.2		
	212.5	227.7	235.3	1016	1144	1207	1398	1588	1779	1906	1969	121.6	136.7	144.3	167.1	189.9	212.7	227.9	235.5		
	227.3	243.6	251.7	1088	1224	1292	1495	1699	1903	2039	2107	131.6	148.0	156.3	181.0	205.7	230.4	246.8	255.0		
	233.7	250.4	258.7	1118	1258	1327	1537	1747	1956	2096	2166	136.0	153.0	161.5	187.0	212.5	237.9	255.0	263.5		
	250.2	268.1	277.0	1197	1347	1422	1646	1871	2095	2245	2320	147.8	166.2	175.4	203.1	230.8	258.6	277.0	286.2		
	39.6	40.4	40.7	633	712	751	870	989	1107	1187	1226	46.9	52.7	55.7	64.5	73.3	82.1	88.0	90.9		
	76.9	79.5	80.6	793	892	942	1091	1239	1388	1487	1537	59.6	67.1	70.8	82.0	93.2	104.3	111.8	115.5		
	111.4	116.7	119.4	921	1036	1094	1266	1439	1612	1727	1785	70.1	78.8	83.2	96.3	109.4	122.6	131.3	135.7		
	143.2	151.3	155.2	1037	1166	1231	1426	1620	1814	1944	2009	79.7	89.6	94.7	109.6	124.5	139.5	149.4	154.4		
	184.6	197.8	204.4	1309	1472	1554	1800	2045	2290	2454	2536	103.4	116.3	122.7	142.1	161.5	180.9	193.8	200.3		
	200.9	215.3	222.4	1425	1603	1692	1959	2226	2493	2671	2760	113.9	128.1	135.3	156.6	178.0	199.3	213.5	220.7		
	208.0	222.8	230.3	1475	1659	1751	2028	2304	2581	2765	2857	118.6	133.4	140.8	163.1	185.3	207.5	222.3	229.7		
	215.8	231.3	238.9	1530	1721	1817	2104	2391	2678	2869	2965	123.8	139.3	147.0	170.2	193.4	216.6	232.1	239.8		
	226.8	243.0	251.2	1608	1809	1910	2212	2513	2815	3016	3116	131.3	147.7	155.9	180.5	205.1	229.7	246.2	254.4		
	240.3	257.5	266.1	1704	1917	2023	2343	2662	2982	3195	3301	140.7	158.2	167.1	193.4	219.8	246.2	263.7	272.6		
	37.4	38.0	38.1	809	910	961	1112	1264	1416	1517	1567	45.9	51.6	54.5	63.0	71.6	80.3	86.0	88.8		
	60.3	61.4	61.8	953	1072	1132	1310	1489	1668	1787	1847	54.5	61.4	64.7	75.0	85.2	95.4	102.3	105.7		
	88.9	92.4	94.0	1094	1231	1300	1505	1710	1915	2052	2120	63.2	71.2	75.1	86.9	98.8	110.7	118.5	122.5		
	118.3	124.3	127.2	1237	1391	1468	1700	1932	2164	2318	2396	72.2	81.2	85.7	99.2	112.7	126.2	135.3	139.8		
	143.0	151.1	155.0	1353	1522	1607	1861	2114	2368	2537	2622	79.6	89.6	94.6	109.5	124.5	139.3	149.3	154.3		
	166.0	177.8	183.8	1537	1729	1825	2113	2402	2690	2882	2978	91.7	103.1	108.9	126.1	143.3	160.5	172.0	177.7		
	179.5	192.4	198.8	1662	1870	1974	2286	2598	2909	3117	3221	100.2	112.7	118.9	137.7	156.5	175.3	187.8	194.0		
	185.2	198.4	205.1	1715	1930	2037	2359	2680	3002	3216	3323	103.8	116.7	123.2	142.7	162.2	181.6	194.6	201.1		
	211.2	226.2	233.8	1955	2200	2322	2689	3055	3422	3666	3789	120.7	135.8	143.3	165.9	188.5	211.2	226.2	233.8		
	249.5	267.3	276.3	2311	2599	2744	3177	3610	4044	4332	4477	147.2	165.6	174.8	202.4	230.0	257.6	276.0	285.2		

宝钢BGT2特殊螺纹接头油套管产品  
Baosteel BGT2 Premium Connection Tubing and Casing Product

外径 Size (OD)	公称 重量 Nominal weight	壁厚 Wall thickness		通径 Drift	管体 截面积 Pipe body section	接头 / Coupling					抗挤强度 / Collapse pressure				
						类型 Type	外径 Coupling OD	长度 Coupling length	上扣损失 Make up loss	接头危险 截面积 CSS	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi
in (mm)	lb/ft	in	mm	mm	sq.mm		mm	mm	mm	sq.mm	MPa				
4 1/2 (114.30)	10.50	0.224	5.69	99.74	1941.48	Normal	123.44	195.00	83.00	1999.00	34.1	35.9	36.6	38.3	40.2
	11.60	0.250	6.35	98.42	2153.51	Normal	124.57	195.00	83.00	2219.00	43.8	47.0	48.5	52.3	55.2
	12.60	0.271	6.88	97.36	2321.79	Normal	125.45	195.00	83.00	2393.00	51.6	55.9	57.9	63.4	68.1
	13.50	0.290	7.37	96.38	2475.81	Normal	126.25	195.00	83.00	2549.00	59.0	64.2	66.7	73.8	80.1
	15.10	0.337	8.56	94.00	2843.56	Normal	128.14	195.00	83.00	2928.00	76.5	84.3	88.0	98.9	109.1
	17.00	0.380	9.65	91.82	3172.61	Normal	128.70	236.00	103.80	3268.00	85.3	95.9	101.3	117.3	135.8
	17.70	0.402	10.21	90.70	3338.76	Normal	129.54	236.00	103.80	3439.00	89.8	100.9	106.6	123.4	140.2
	18.90	0.430	10.92	89.28	3546.57	Normal	130.59	236.00	103.80	3653.00	95.4	107.2	113.2	131.1	148.9
	21.50	0.500	12.70	85.72	4053.66	Normal	132.53	259.00	115.00	4176.00	108.9	122.6	129.4	149.8	170.2
	23.70	0.560	14.22	82.68	4472.00	Normal	134.58	259.00	115.00	4606.00	120.2	135.2	142.7	165.3	187.8
5 (127.00)	15.00	0.296	7.52	108.79	2822.69	Normal	145.50	257.00	112.80	4386.36	50.0	54.1	55.9	61.1	65.4
	15.00	0.296	7.52	108.79	2822.69	SC100	138.80	257.00	112.80	2891.09	50.0	54.1	55.9	61.1	65.4
	15.00	0.296	7.52	108.79	2822.69	SC90	137.60	257.00	112.80	2630.72	50.0	54.1	55.9	61.1	65.4
	18.00	0.362	9.19	105.45	3401.32	Normal	145.50	257.00	112.80	4386.36	72.3	79.4	82.8	92.8	102.1
	18.00	0.362	9.19	105.45	3401.32	SC100	141.60	257.00	112.80	3507.40	72.3	79.4	82.8	92.8	102.1
	18.00	0.362	9.19	105.45	3401.32	SC90	140.00	257.00	112.80	3153.71	72.3	79.4	82.8	92.8	102.1
	21.40	0.437	11.10	101.63	4041.63	Normal	145.50	257.00	112.80	4386.36	88.0	99.0	104.5	121.0	137.5
	21.40	0.437	11.10	101.63	4041.63	SC100	144.50	257.00	112.80	4158.71	88.0	99.0	104.5	121.0	137.5
	21.40	0.437	11.10	101.63	4041.63	SC90	142.70	257.00	112.80	3752.90	88.0	99.0	104.5	121.0	137.5
	23.20	0.478	12.14	99.55	4380.64	Normal	148.00	257.00	112.80	4962.35	95.4	107.3	113.3	131.1	149.0
	23.20	0.478	12.14	99.55	4380.64	SC100	146.00	257.00	112.80	4500.77	95.4	107.3	113.3	131.1	149.0
	23.20	0.478	12.14	99.55	4380.64	SC90	144.10	257.00	112.80	4068.09	95.4	107.3	113.3	131.1	149.0
	24.10	0.500	12.70	98.43	4560.37	Normal	148.00	257.00	112.80	4962.35	99.3	111.7	117.9	136.5	155.1
	24.10	0.500	12.70	98.43	4560.37	SC100	146.80	257.00	112.80	4684.65	99.3	111.7	117.9	136.5	155.1
24.10	0.500	12.70	98.43	4560.37	SC90	144.90	257.00	112.80	4249.58	99.3	111.7	117.9	136.5	155.1	
5 1/2 (139.70)	17.00	0.304	7.72	121.09	3200.92	Normal	157.00	265.00	116.80	4557.67	43.3	46.4	47.9	51.5	54.3
	17.00	0.304	7.72	121.09	3200.92	SC100	151.80	265.00	116.80	3297.15	43.3	46.4	47.9	51.5	54.3
	17.00	0.304	7.72	121.09	3200.92	SC90	150.40	265.00	116.80	2965.03	43.3	46.4	47.9	51.5	54.3
	20.00	0.361	9.17	118.19	3760.36	Normal	157.00	265.00	116.80	4557.67	60.9	66.5	69.1	76.5	83.4
	20.00	0.361	9.17	118.19	3760.36	SC100	154.20	265.00	116.80	3873.65	60.9	66.5	69.1	76.5	83.4
	20.00	0.361	9.17	118.19	3760.36	SC90	152.60	265.00	116.80	3488.31	60.9	66.5	69.1	76.5	83.4
	23.00	0.415	10.54	115.45	4276.80	Normal	157.00	265.00	116.80	4557.67	77.5	85.4	89.2	100.3	110.7
	23.00	0.415	10.54	115.45	4276.80	SC100	156.40	265.00	116.80	4410.06	77.5	85.4	89.2	100.3	110.7
	23.00	0.415	10.54	115.45	4276.80	SC90	154.60	265.00	116.80	3970.61	77.5	85.4	89.2	100.3	110.7
	26.50	0.486	12.34	111.85	4937.40	Normal	159.00	265.00	116.80	5053.79	88.8	100.0	105.5	122.2	138.8
	26.50	0.486	12.34	111.85	4937.40	SC100	159.00	265.00	116.80	5053.79	88.8	100.0	105.5	122.2	138.8

				抗拉屈服强度 / Yield strength								最小内屈服压力 / Minimum internal yield strength							
	140 ksi	150 ksi	155 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	140 ksi	150 ksi	155 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	140 ksi	150 ksi	155 ksi
	MPa			kN								MPa							
	42.1	43.1	43.4	1070	1204	1271	1472	1672	1873	2007	2074	48.1	54.1	57.1	66.1	75.1	84.1	90.1	93.1
	57.2	58.1	58.4	1187	1336	1410	1632	1855	2078	2226	2300	53.6	60.3	63.7	73.7	83.8	93.8	100.5	103.9
	72.0	74.1	75.0	1280	1440	1520	1760	2000	2240	2400	2480	58.1	65.4	69.0	79.9	90.8	101.7	108.9	112.6
	85.6	88.9	90.4	1365	1536	1621	1877	2133	2389	2559	2645	62.3	70.1	73.9	85.6	97.2	108.9	116.7	120.6
	118.8	124.8	127.7	1568	1764	1862	2156	2449	2743	2939	3037	72.3	81.4	85.8	99.4	112.9	126.5	135.6	140.0
	149.1	157.8	161.9	1749	1968	2077	2405	2733	3061	3279	3389	81.5	91.7	96.8	112.0	127.4	142.6	152.8	157.9
	157.1	174.7	179.5	1841	2071	2186	2531	2876	3221	3451	3566	86.3	97.0	102.4	118.6	134.7	150.9	161.7	167.1
	166.8	178.7	184.7	1955	2200	2322	2688	3055	3422	3666	3788	92.3	103.8	109.5	126.8	144.1	161.4	172.9	178.6
	190.6	204.3	211.1	2235	2514	2654	3073	3492	3911	4190	4330	107.3	120.7	127.4	147.5	167.6	187.7	201.1	207.8
	210.4	225.4	232.9	2465	2774	2928	3390	3852	4314	4623	4777	120.1	135.1	142.7	165.2	187.7	210.2	225.3	232.8
	68.9	70.7	71.5	1556	1751	1848	2140	2431	2723	2918	3015	57.2	64.3	67.8	78.6	89.3	100.0	107.1	110.7
	68.9	70.7	71.5	1556	1751	1848	2140	2431	2723	2918	3015	57.2	64.3	67.8	78.6	89.3	100.0	107.1	110.7
	68.9	70.7	71.5	1401	1576	1663	1926	2188	2451	2626	2714	57.2	64.3	67.8	78.6	89.3	100.0	107.1	110.7
	110.7	116.1	118.7	1875	2110	2227	2578	2930	3282	3516	3633	69.8	78.6	82.9	96.0	109.1	122.2	131.0	135.3
	110.7	116.1	118.7	1875	2110	2227	2578	2930	3282	3516	3633	69.8	78.6	82.9	96.0	109.1	122.2	131.0	135.3
	110.7	116.1	118.7	1688	1899	2004	2320	2637	2953	3164	3270	69.8	78.6	82.9	96.0	109.1	122.2	131.0	135.3
	158.6	168.0	172.6	2228	2507	2646	3064	3481	3899	4178	4317	84.4	94.9	100.2	116.0	131.8	147.6	158.2	163.5
	158.6	168.0	172.6	2228	2507	2646	3064	3481	3899	4178	4317	84.4	94.9	100.2	116.0	131.8	147.6	158.2	163.5
	158.6	168.0	172.6	2005	2256	2381	2757	3133	3509	3760	3885	84.4	94.9	100.2	116.0	131.8	147.6	158.2	163.5
	166.9	178.9	184.8	2415	2717	2868	3321	3774	4226	4528	4679	92.3	103.8	109.6	126.9	144.2	161.5	173.0	178.8
	166.9	178.9	184.8	2415	2717	2868	3321	3774	4226	4528	4679	92.3	103.8	109.6	126.9	144.2	161.5	173.0	178.8
	166.9	178.9	184.8	2174	2445	2581	2989	3396	3804	4075	4211	92.3	103.8	109.6	126.9	144.2	161.5	173.0	178.8
	173.8	186.2	192.4	2514	2828	2986	3457	3928	4400	4714	4871	96.5	108.6	114.7	132.7	150.9	168.9	181.0	187.1
	173.8	186.2	192.4	2514	2828	2986	3457	3928	4400	4714	4871	96.5	108.6	114.7	132.7	150.9	168.9	181.0	187.1
	173.8	186.2	192.4	2263	2546	2687	3111	3536	3960	4243	4384	96.5	108.6	114.7	132.7	150.9	168.9	181.0	187.1
	56.3	57.1	57.3	1765	1985	2096	2426	2757	3088	3309	3419	53.4	60.0	63.4	73.4	83.4	93.4	100.0	103.4
	56.3	57.1	57.3	1765	1985	2096	2426	2757	3088	3309	3419	53.4	60.0	63.4	73.4	83.4	93.4	100.0	103.4
	56.3	57.1	57.3	1588	1787	1886	2184	2482	2779	2978	3077	53.4	60.0	63.4	73.4	83.4	93.4	100.0	103.4
	89.4	92.9	94.5	2073	2332	2462	2850	3239	3628	3887	4017	63.4	71.3	75.2	87.2	99.0	110.9	118.8	122.8
	89.4	92.9	94.5	2073	2332	2462	2850	3239	3628	3887	4017	63.4	71.3	75.2	87.2	99.0	110.9	118.8	122.8
	89.4	92.9	94.5	1866	2099	2216	2565	2915	3265	3498	3615	63.4	71.3	75.2	87.2	99.0	110.9	118.8	122.8
	120.6	126.7	129.7	2358	2653	2800	3242	3684	4126	4421	4568	72.8	81.9	86.5	100.1	113.8	127.4	136.5	141.1
	120.6	126.7	129.7	2358	2653	2800	3242	3684	4126	4421	4568	72.8	81.9	86.5	100.1	113.8	127.4	136.5	141.1
	120.6	126.7	129.7	2122	2387	2520	2918	3316	3714	3979	4111	72.8	81.9	86.5	100.1	113.8	127.4	136.5	141.1
	155.5	171.2	175.9	2722	3062	3232	3743	4253	4763	5104	5274	85.3	95.9	101.3	117.2	133.2	149.2	159.9	165.2
	155.5	171.2	175.9	2722	3062	3232	3743	4253	4763	5104	5274	85.3	95.9	101.3	117.2	133.2	149.2	159.9	165.2

宝钢BGT2特殊螺纹接头油套管产品  
Baosteel BGT2 Premium Connection Tubing and Casing Product

外径 Size (OD)	公称 重量 Nominal weight	壁厚 Wall thickness		通径 Drift	管体 截面积 Pipe body section	接头 / Coupling					抗挤强度 / Collapse pressure				
						类型 Type	外径 Coupling OD	长度 Coupling length	上扣损失 Make up loss	接头危险 截面积 CSS	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi
in (mm)	lb/ft	in	mm	mm	sq.mm		mm	mm	mm	sq.mm	MPa				
5 1/2 (139.70)	26.80	0.500	12.70	111.13	5067.07	Normal	164.10	265.00	116.80	6347.32	91.2	102.6	108.3	125.4	142.5
	26.80	0.500	12.70	111.13	5067.07	SC100	159.70	265.00	116.80	5228.91	91.2	102.6	108.3	125.4	142.5
	26.80	0.500	12.70	111.13	5067.07	SC90	157.60	265.00	116.80	4705.85	91.2	102.6	108.3	125.4	142.5
	29.70	0.562	14.27	107.99	5623.09	Normal	164.10	265.00	116.80	6347.32	101.1	113.8	120.2	139.1	158.1
	29.70	0.562	14.27	107.99	5623.09	SC100	161.90	265.00	116.80	5784.32	101.1	113.8	120.2	139.1	158.1
	29.70	0.562	14.27	107.99	5623.09	SC90	159.70	265.00	116.80	5228.91	101.1	113.8	120.2	139.1	158.1
	32.60	0.625	15.88	104.77	6177.19	Normal	164.10	265.00	116.80	6347.32	111.1	125.1	132.0	152.9	173.7
	32.60	0.625	15.88	104.77	6177.19	SC100	164.10	265.00	116.80	6347.32	111.1	125.1	132.0	152.9	173.7
	32.60	0.625	15.88	104.77	6177.19	SC90	162.70	265.00	116.80	5988.17	111.1	125.1	132.0	152.9	173.7
7 (177.80)	23.00	0.317	8.05	158.53	4292.95	Normal	197.00	295.00	122.50	6418.94	26.4	27.7	28.5	30.6	32.0
	23.00	0.317	8.05	158.53	4292.95	SC100	190.40	295.00	122.50	4411.83	26.4	27.7	28.5	30.6	32.0
	23.00	0.317	8.05	158.53	4292.95	SC90	189.00	295.00	122.50	3994.86	26.4	27.7	28.5	30.6	32.0
	26.00	0.362	9.19	156.25	4867.98	Normal	197.00	295.00	122.50	6418.94	37.2	39.5	40.5	42.9	44.4
	26.00	0.362	9.19	156.25	4867.98	SC100	192.40	295.00	122.50	5012.82	37.2	39.5	40.5	42.9	44.4
	26.00	0.362	9.19	156.25	4867.98	SC90	190.80	295.00	122.50	4531.52	37.2	39.5	40.5	42.9	44.4
	29.00	0.408	10.36	153.91	5449.65	Normal	197.00	295.00	122.50	6418.94	48.4	52.2	54.0	58.8	62.7
	29.00	0.408	10.36	153.91	5449.65	SC100	194.40	295.00	122.50	5620.10	48.4	52.2	54.0	58.8	62.7
	29.00	0.408	10.36	153.91	5449.65	SC90	192.60	295.00	122.50	5073.27	48.4	52.2	54.0	58.8	62.7
	32.00	0.453	11.51	151.61	6013.00	Normal	200.03	295.00	122.50	7363.30	59.4	64.7	67.2	74.4	80.8
	32.00	0.453	11.51	151.61	6013.00	SC100	196.30	295.00	122.50	6202.83	59.4	64.7	67.2	74.4	80.8
	32.00	0.453	11.51	151.61	6013.00	SC90	194.30	295.00	122.50	5589.58	59.4	64.7	67.2	74.4	80.8
	35.00	0.498	12.65	149.33	6563.25	Normal	200.03	295.00	122.50	7363.30	70.3	77.0	80.3	89.8	98.7
	35.00	0.498	12.65	149.33	6563.25	SC100	198.10	295.00	122.50	6760.11	70.3	77.0	80.3	89.8	98.7
	35.00	0.498	12.65	149.33	6563.25	SC90	196.00	295.00	122.50	6110.44	70.3	77.0	80.3	89.8	98.7
	38.00	0.540	13.72	147.19	7072.28	Normal	200.03	295.00	122.50	7363.30	78.5	88.7	92.7	104.4	115.5
38.00	0.540	13.72	147.19	7072.28	SC100	200.03	295.00	122.50	7363.30	78.5	88.7	92.7	104.4	115.5	
38.00	0.540	13.72	147.19	7072.28	SC90	197.50	295.00	122.50	6573.79	78.5	88.7	92.7	104.4	115.5	
7 3/4 (196.85)	39.00	0.500	12.70	168.28	7347.26	Normal	219.00	300.00	125.00	8248.10	59.0	64.3	66.8	73.8	80.2
	39.00	0.500	12.70	168.28	7347.26	SC100	217.00	300.00	125.00	7563.58	59.0	64.3	66.8	73.8	80.2
	39.00	0.500	12.70	168.28	7347.26	SC95	215.90	300.00	125.00	7189.78	59.0	64.3	66.8	73.8	80.2
	39.00	0.500	12.70	168.28	7347.26	SC90	214.80	300.00	125.00	6817.87	59.0	64.3	66.8	73.8	80.2
	46.10	0.595	15.11	163.46	8627.10	Normal	222.25	300.00	125.00	9373.84	78.2	87.8	91.8	103.4	114.4
	46.10	0.595	15.11	163.46	8627.10	SC100	220.80	300.00	125.00	8869.54	78.2	87.8	91.8	103.4	114.4
	46.10	0.595	15.11	163.46	8627.10	SC90	218.30	300.00	125.00	8007.81	78.2	87.8	91.8	103.4	114.4
7 7/8 (200.03)	34.40	0.430	10.92	175.01	6487.47	Normal	222.25	304.00	128.00	8350.25	42.2	45.2	46.5	49.9	52.5
	34.40	0.430	10.92	175.01	6487.47	SC100	217.40	304.00	128.00	6676.40	42.2	45.2	46.5	49.9	52.5
	34.40	0.430	10.92	175.01	6487.47	SC90	215.50	304.00	128.00	6030.73	42.2	45.2	46.5	49.9	52.5

				抗拉屈服强度 / Yield strength								最小内屈服压力 / Minimum internal yield strength							
	140 ksi	150 ksi	155 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	140 ksi	150 ksi	155 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	140 ksi	150 ksi	155 ksi
	MPa			kN								MPa							
	159.6	170.9	176.6	2793	3143	3317	3841	4365	4889	5238	5412	87.8	98.7	104.2	120.7	137.1	153.6	164.5	170.0
	159.6	170.9	176.6	2793	3143	3317	3841	4365	4889	5238	5412	87.8	98.7	104.2	120.7	137.1	153.6	164.5	170.0
	159.6	170.9	176.6	2514	2828	2986	3457	3928	4400	4714	4871	87.8	98.7	104.2	120.7	137.1	153.6	164.5	170.0
	177.1	189.7	196.0	3100	3488	3681	4263	4844	5425	5813	6006	98.6	110.9	117.1	135.6	154.0	172.6	184.9	191.1
	177.1	189.7	196.0	3100	3488	3681	4263	4844	5425	5813	6006	98.6	110.9	117.1	135.6	154.0	172.6	184.9	191.1
	177.1	189.7	196.0	2790	3139	3313	3836	4359	4883	5231	5406	98.6	110.9	117.1	135.6	154.0	172.6	184.9	191.1
	194.5	208.4	215.3	3405	3831	4044	4683	5321	5960	6385	6598	109.7	123.4	130.3	150.9	171.5	192.0	205.7	212.6
	194.5	208.4	215.3	3405	3831	4044	4683	5321	5960	6385	6598	109.7	123.4	130.3	150.9	171.5	192.0	205.7	212.6
	194.5	208.4	215.3	3065	3448	3640	4214	4789	5364	5747	5938	109.7	123.4	130.3	150.9	171.5	192.0	205.7	212.6
	32.8	33.0	33.0	2367	2663	2810	3254	3698	4142	4438	4585	43.7	49.2	51.9	60.1	68.3	76.5	81.9	84.7
	32.8	33.0	33.0	2367	2663	2810	3254	3698	4142	4438	4585	43.7	49.2	51.9	60.1	68.3	76.5	81.9	84.7
	32.8	33.0	33.0	2130	2396	2529	2929	3328	3728	3994	4127	43.7	49.2	51.9	60.1	68.3	76.5	81.9	84.7
	46.1	47.4	47.9	2684	3019	3187	3690	4193	4697	5032	5200	49.9	56.1	59.2	68.6	78.0	87.3	93.6	96.7
	46.1	47.4	47.9	2684	3019	3187	3690	4193	4697	5032	5200	49.9	56.1	59.2	68.6	78.0	87.3	93.6	96.7
	46.1	47.4	47.9	2415	2717	2868	3321	3774	4227	4529	4680	49.9	56.1	59.2	68.6	78.0	87.3	93.6	96.7
	65.9	67.5	68.1	3004	3380	3568	4131	4694	5258	5633	5821	56.3	63.3	66.8	77.4	87.9	98.5	105.5	109.0
	65.9	67.5	68.1	3004	3380	3568	4131	4694	5258	5633	5821	56.3	63.3	66.8	77.4	87.9	98.5	105.5	109.0
	65.9	67.5	68.1	2704	3042	3211	3718	4225	4732	5070	5239	56.3	63.3	66.8	77.4	87.9	98.5	105.5	109.0
	86.5	89.8	91.3	3315	3729	3937	4558	5180	5801	6216	6423	62.5	70.3	74.2	85.9	97.6	109.4	117.1	121.1
	86.5	89.8	91.3	3315	3729	3937	4558	5180	5801	6216	6423	62.5	70.3	74.2	85.9	97.6	109.4	117.1	121.1
	86.5	89.8	91.3	2983	3356	3543	4102	4662	5221	5594	5780	62.5	70.3	74.2	85.9	97.6	109.4	117.1	121.1
	106.9	111.9	114.3	3618	4071	4297	4975	5654	6332	6784	7011	68.7	77.3	81.6	94.5	107.3	120.2	128.8	133.1
	106.9	111.9	114.3	3618	4071	4297	4975	5654	6332	6784	7011	68.7	77.3	81.6	94.5	107.3	120.2	128.8	133.1
	106.9	111.9	114.3	3256	3664	3867	4478	5088	5699	6106	6309	68.7	77.3	81.6	94.5	107.3	120.2	128.8	133.1
	126.0	132.7	135.9	3899	4386	4630	5361	6092	6823	7311	7554	74.5	83.8	88.5	102.4	116.4	130.4	139.7	144.3
	126.0	132.7	135.9	3899	4386	4630	5361	6092	6823	7311	7554	74.5	83.8	88.5	102.4	116.4	130.4	139.7	144.3
	126.0	132.7	135.9	3509	3948	4167	4825	5483	6141	6579	6799	74.5	83.8	88.5	102.4	116.4	130.4	139.7	144.3
	85.8	89.0	90.5	4051	4557	4810	5570	6329	7088	7595	7848	62.3	70.1	74.0	85.6	97.3	109.0	116.8	120.7
	85.8	89.0	90.5	4051	4557	4810	5570	6329	7088	7595	7848	62.3	70.1	74.0	85.6	97.3	109.0	116.8	120.7
	85.8	89.0	90.5	3848	4329	4570	5291	6013	6734	7215	7456	62.3	70.1	74.0	85.6	97.3	109.0	116.8	120.7
	85.8	89.0	90.5	3645	4101	4329	5013	5696	6380	6835	7063	62.3	70.1	74.0	85.6	97.3	109.0	116.8	120.7
	124.7	131.3	134.4	4756	5351	5648	6540	7431	8323	8918	9215	74.1	83.4	88.0	101.9	115.8	129.7	138.9	143.6
	124.7	131.3	134.4	4756	5351	5648	6540	7431	8323	8918	9215	74.1	83.4	88.0	101.9	115.8	129.7	138.9	143.6
	124.7	131.3	134.4	4281	4816	5083	5886	6688	7491	8026	8293	74.1	83.4	88.0	101.9	115.8	129.7	138.9	143.6
	54.2	54.8	55.0	3577	4024	4247	4918	5588	6259	6706	6930	52.7	59.3	62.6	72.5	82.3	92.3	98.8	102.1
	54.2	54.8	55.0	3577	4024	4247	4918	5588	6259	6706	6930	52.7	59.3	62.6	72.5	82.3	92.3	98.8	102.1
	54.2	54.8	55.0	3219	3621	3822	4426	5030	5633	6035	6237	52.7	59.3	62.6	72.5	82.3	92.3	98.8	102.1

宝钢BGT2特殊螺纹接头油套管产品  
Baosteel BGT2 Premium Connection Tubing and Casing Product

外径 Size (OD)	公称 重量 Nominal weight	壁厚 Wall thickness		通径 Drift	管体 截面积 Pipe body section	接头 / Coupling					抗挤强度 / Collapse pressure				
						类型 Type	外径 Coupling OD	长度 Coupling length	上扣损失 Make up loss	接头危险 截面积 CSS	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi
in (mm)	lb/ft	in	mm	mm	sq.mm		mm	mm	mm	sq.mm	MPa				
9 5/8 (244.48)	40.00	0.395	10.03	220.45	7387.40	Normal	269.88	330.00	143.77	11377.51	21.2	22.4	22.9	23.9	24.3
	40.00	0.395	10.03	220.45	7387.40	SC100	260.80	330.00	143.77	7594.93	21.2	22.4	22.9	23.9	24.3
	40.00	0.395	10.03	220.45	7387.40	SC90	259.00	330.00	143.77	6860.45	21.2	22.4	22.9	23.9	24.3
	43.50	0.435	11.05	218.41	8103.26	Normal	269.88	330.00	143.77	11377.51	26.3	27.6	28.5	30.5	31.9
	43.50	0.435	11.05	218.41	8103.26	SC100	262.60	330.00	143.77	8334.49	26.3	27.6	28.5	30.5	31.9
	43.50	0.435	11.05	218.41	8103.26	SC90	260.60	330.00	143.77	7513.07	26.3	27.6	28.5	30.5	31.9
	47.00	0.472	11.99	216.53	8757.17	Normal	269.88	330.00	143.77	11377.51	32.8	34.5	35.1	36.5	38.9
	47.00	0.472	11.99	216.53	8757.17	SC100	264.20	330.00	143.77	8996.15	32.8	34.5	35.1	36.5	38.9
	47.00	0.472	11.99	216.53	8757.17	SC90	262.10	330.00	143.77	8128.55	32.8	34.5	35.1	36.5	38.9
	53.50	0.545	13.84	212.83	10027.93	Normal	269.88	330.00	143.77	11377.51	45.6	49.0	50.6	54.8	58.1
	53.50	0.545	13.84	212.83	10027.93	SC100	267.40	330.00	143.77	10331.53	45.6	49.0	50.6	54.8	58.1
	53.50	0.545	13.84	212.83	10027.93	SC90	265.00	330.00	143.77	9328.49	45.6	49.0	50.6	54.8	58.1
	58.40	0.595	15.11	210.29	10887.83	Normal	269.88	330.00	143.77	11377.51	54.4	59.0	61.2	67.3	72.6
	58.40	0.595	15.11	210.29	10887.83	SC100	269.80	330.00	143.77	11343.62	54.4	59.0	61.2	67.3	72.6
58.40	0.595	15.11	210.29	10887.83	SC90	266.90	330.00	143.77	10121.82	54.4	59.0	61.2	67.3	72.6	
10 3/4 (273.05)	45.50	0.400	10.16	248.76	8391.08	Normal	298.45	330.00	143.77	12648.70	17.0	17.7	17.9	18.0	18.0
	45.50	0.400	10.16	248.76	8391.08	SC100	289.80	330.00	143.77	8654.33	17.0	17.7	17.9	18.0	18.0
	45.50	0.400	10.16	248.76	8391.08	SC90	288.00	330.00	143.77	7837.90	17.0	17.7	17.9	18.0	18.0
	51.00	0.450	11.43	246.22	9394.36	Normal	298.45	330.00	143.77	12648.70	22.2	23.4	24.0	25.2	25.8
	51.00	0.450	11.43	246.22	9394.36	SC100	292.00	330.00	143.77	9659.10	22.2	23.4	24.0	25.2	25.8
	51.00	0.450	11.43	246.22	9394.36	SC90	290.00	330.00	143.77	8745.36	22.2	23.4	24.0	25.2	25.8
	55.50	0.495	12.57	243.94	10286.31	Normal	298.45	330.00	143.77	12648.70	27.7	28.7	29.6	31.8	33.4
	55.50	0.495	12.57	243.94	10286.31	SC100	294.00	330.00	143.77	10579.12	27.7	28.7	29.6	31.8	33.4
	55.50	0.495	12.57	243.94	10286.31	SC90	291.80	330.00	143.77	9567.44	27.7	28.7	29.6	31.8	33.4
	60.70	0.545	13.84	241.40	11270.36	Normal	298.45	330.00	143.77	12648.70	35.6	37.6	38.5	40.5	41.9
	60.70	0.545	13.84	241.40	11270.36	SC100	296.20	330.00	143.77	11598.40	35.6	37.6	38.5	40.5	41.9
	60.70	0.545	13.84	241.40	11270.36	SC90	293.70	330.00	143.77	10440.72	35.6	37.6	38.5	40.5	41.9
	65.70	0.595	15.11	238.86	12244.27	Normal	298.45	330.00	143.77	12648.70	43.4	46.6	48.0	51.7	54.6
	65.70	0.595	15.11	238.86	12244.27	SC100	298.40	330.00	143.77	12625.27	43.4	46.6	48.0	51.7	54.6
65.70	0.595	15.11	238.86	12244.27	SC90	295.70	330.00	143.77	11366.08	43.4	46.6	48.0	51.7	54.6	
13 3/4 (339.73)	54.5	0.380	9.65	316.46	10006.68	Normal	365.13	340.00	144.33	15562.66	7.9	7.9	7.9	7.9	7.9
	54.5	0.380	9.65	316.46	10006.68	SC100	355.80	340.00	144.33	10282.53	7.9	7.9	7.9	7.9	7.9
	54.5	0.380	9.65	316.46	10006.68	SC90	354.00	340.00	144.33	9279.59	7.9	7.9	7.9	7.9	7.9
	61.0	0.430	10.92	313.92	11280.05	Normal	365.13	340.00	144.33	15562.66	11.4	11.4	11.4	11.4	11.4
	61.0	0.430	10.92	313.92	11280.05	SC100	358.20	340.00	144.33	11627.71	11.4	11.4	11.4	11.4	11.4
	61.0	0.430	10.92	313.92	11280.05	SC90	356.20	340.00	144.33	10506.10	11.4	11.4	11.4	11.4	11.4
	68.0	0.480	12.19	311.38	12543.28	Normal	365.13	340.00	144.33	15562.66	15.6	16.0	16.1	16.1	16.1
	68.0	0.480	12.19	311.38	12543.28	SC100	360.50	340.00	144.33	12925.32	15.6	16.0	16.1	16.1	16.1
	68.0	0.480	12.19	311.38	12543.28	SC90	358.30	340.00	144.33	11683.95	15.6	16.0	16.1	16.1	16.1
	72.0	0.514	13.06	309.64	13402.80	Normal	365.13	340.00	144.33	15562.66	18.4	19.2	19.4	19.9	19.9
	72.0	0.514	13.06	309.64	13402.80	SC100	362.00	340.00	144.33	13776.07	18.4	19.2	19.4	19.9	19.9
	72.0	0.514	13.06	309.64	13402.80	SC90	359.60	340.00	144.33	12416.57	18.4	19.2	19.4	19.9	19.9

注：Normal 指常规接箍外径，连接强度接头大于管体。接头类型为 Normal、SC100 或 SC90 的相同规格接头可互换。

SC：接箍特殊外径。SC100：接头拉伸效率为管体 100%；SC90：接头拉伸效率为管体 90%。

Normal: Tensile efficiency of connection greater than pipe body; Special Clearance(SC). SC100: 100% Tensile efficiency of the connection; SC90: 90% Tensile efficiency of the connection.

				抗拉屈服强度 / Yield strength								最小内屈服压力 / Minimum internal yield strength							
	140 ksi	150 ksi	155 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	140 ksi	150 ksi	155 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	140 ksi	150 ksi	155 ksi
	MPa			kN								MPa							
	24.3	24.3	24.3	4073	4582	4836	5600	6364	7127	7636	7891	39.6	44.5	47.0	54.5	61.8	69.3	74.3	76.7
	24.3	24.3	24.3	4073	4582	4836	5600	6364	7127	7636	7891	39.6	44.5	47.0	54.5	61.8	69.3	74.3	76.7
	24.3	24.3	24.3	3665	4124	4353	5040	5727	6414	6873	7102	39.6	44.5	47.0	54.5	61.8	69.3	74.3	76.7
	32.6	32.8	32.8	4467	5026	5305	6143	6980	7818	8376	8655	43.6	49.1	51.8	60.0	68.2	76.3	81.8	84.5
	32.6	32.8	32.8	4467	5026	5305	6143	6980	7818	8376	8655	43.6	49.1	51.8	60.0	68.2	76.3	81.8	84.5
	32.6	32.8	32.8	4021	4523	4774	5528	6282	7036	7539	7790	43.6	49.1	51.8	60.0	68.2	76.3	81.8	84.5
	40.6	41.4	41.7	4828	5431	5733	6638	7543	8449	9052	9354	47.4	53.2	56.2	65.1	74.0	82.9	88.7	91.7
	40.6	41.4	41.7	4828	5431	5733	6638	7543	8449	9052	9354	47.4	53.2	56.2	65.1	74.0	82.9	88.7	91.7
	40.6	41.4	41.7	4345	4888	5160	5974	6789	7604	8147	8419	47.4	53.2	56.2	65.1	74.0	82.9	88.7	91.7
	60.6	61.8	62.2	5528	6219	6565	7602	8638	9675	10366	10711	54.7	61.5	64.9	75.2	85.4	95.6	102.5	105.9
	60.6	61.8	62.2	5528	6219	6565	7602	8638	9675	10366	10711	54.7	61.5	64.9	75.2	85.4	95.6	102.5	105.9
	60.6	61.8	62.2	4976	5598	5908	6841	7774	8707	9329	9640	54.7	61.5	64.9	75.2	85.4	95.6	102.5	105.9
	77.2	79.7	80.8	6002	6753	7128	8253	9379	10504	11255	11630	59.6	67.1	70.9	82.1	93.2	104.4	111.8	115.6
	77.2	79.7	80.8	6002	6753	7128	8253	9379	10504	11255	11630	59.6	67.1	70.9	82.1	93.2	104.4	111.8	115.6
	77.2	79.7	80.8	5402	6078	6415	7428	8441	9454	10129	10467	59.6	67.1	70.9	82.1	93.2	104.4	111.8	115.6
	18.0	18.0	18.0	4626	5204	5493	6361	7228	8096	8674	8963	35.9	40.4	42.7	49.4	56.1	62.9	67.4	69.6
	18.0	18.0	18.0	4626	5204	5493	6361	7228	8096	8674	8963	35.9	40.4	42.7	49.4	56.1	62.9	67.4	69.6
	18.0	18.0	18.0	4163	4684	4944	5725	6505	7286	7806	8067	35.9	40.4	42.7	49.4	56.1	62.9	67.4	69.6
	25.9	25.9	25.9	5179	5827	6150	7121	8092	9063	9711	10035	40.4	45.4	48.0	55.6	63.2	70.7	75.8	78.3
	25.9	25.9	25.9	5179	5827	6150	7121	8092	9063	9711	10035	40.4	45.4	48.0	55.6	63.2	70.7	75.8	78.3
	25.9	25.9	25.9	4661	5244	5535	6409	7283	8157	8740	9031	40.4	45.4	48.0	55.6	63.2	70.7	75.8	78.3
	34.4	34.7	34.7	5671	6380	6734	7797	8861	9924	10633	10987	44.4	50.0	52.7	61.1	69.4	77.8	83.3	86.1
	34.4	34.7	34.7	5671	6380	6734	7797	8861	9924	10633	10987	44.4	50.0	52.7	61.1	69.4	77.8	83.3	86.1
	34.4	34.7	34.7	5104	5742	6061	7018	7975	8932	9570	9889	44.4	50.0	52.7	61.1	69.4	77.8	83.3	86.1
	44.0	45.2	45.6	6213	6990	7378	8543	9708	10873	11650	12038	49.0	55.0	58.1	67.3	76.5	85.6	91.8	94.8
	44.0	45.2	45.6	6213	6990	7378	8543	9708	10873	11650	12038	49.0	55.0	58.1	67.3	76.5	85.6	91.8	94.8
	44.0	45.2	45.6	5592	6291	6641	7689	8738	9786	10485	10835	49.0	55.0	58.1	67.3	76.5	85.6	91.8	94.8
	56.5	57.4	57.6	6750	7594	8016	9282	10547	11813	12657	13079	53.4	60.1	63.4	73.4	83.5	93.5	100.2	103.5
	56.5	57.4	57.6	6750	7594	8016	9282	10547	11813	12657	13079	53.4	60.1	63.4	73.4	83.5	93.5	100.2	103.5
	56.5	57.4	57.6	6075	6835	7214	8353	9493	10632	11391	11771	53.4	60.1	63.4	73.4	83.5	93.5	100.2	103.5
	7.9	7.9	7.9	5517	6206	6551	7585	8620	9654	10344	10689	27.4	30.8	32.5	37.7	42.8	48.0	51.4	53.1
	7.9	7.9	7.9	5517	6206	6551	7585	8620	9654	10344	10689	27.4	30.8	32.5	37.7	42.8	48.0	51.4	53.1
	7.9	7.9	7.9	4965	5586	5896	6827	7758	8689	9309	9620	27.4	30.8	32.5	37.7	42.8	48.0	51.4	53.1
	11.4	11.4	11.4	6219	6996	7385	8551	9717	10883	11660	12049	31.0	34.9	36.8	42.7	48.5	54.3	58.2	60.1
	11.4	11.4	11.4	6219	6996	7385	8551	9717	10883	11660	12049	31.0	34.9	36.8	42.7	48.5	54.3	58.2	60.1
	11.4	11.4	11.4	5597	6296	6646	7696	8745	9794	10494	10844	31.0	34.9	36.8	42.7	48.5	54.3	58.2	60.1
	16.1	16.1	16.1	6915	7780	8212	9508	10805	12101	12966	13398	34.6	39.0	41.2	47.6	54.1	60.6	65.0	67.1
	16.1	16.1	16.1	6915	7780	8212	9508	10805	12101	12966	13398	34.6	39.0	41.2	47.6	54.1	60.6	65.0	67.1
	16.1	16.1	16.1	6224	7002	7391	8557	9724	10891	11669	12058	34.6	39.0	41.2	47.6	54.1	60.6	65.0	67.1
	19.9	19.9	19.9	7389	8313	8774	10160	11545	12931	13854	14316	37.1	41.7	44.1	51.0	58.0	65.0	69.6	71.9
	19.9	19.9	19.9	7389	8313	8774	10160	11545	12931	13854	14316	37.1	41.7	44.1	51.0	58.0	65.0	69.6	71.9
	19.9	19.9	19.9	6650	7481	7897	9144	10391	11638	12469	12885	37.1	41.7	44.1	51.0	58.0	65.0	69.6	71.9

**BGT2 油管扭矩表**  
Properties of Baosteel premium connection tubing

规格 Size (OD)	公称重量 Nominal weight	壁厚 Wall thickness	75-80-85 ksi		90-95-100 ksi		105-110-115 ksi		120-125-130 ksi		135-140 ksi		145-150-155 Ksi				
			min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	
in (mm)	lb/ft	in (mm)	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.			
	4.60	0.217	1080	1320	1210	1340	1470	1560	1350	1500	1650	1380	1530	1680	1400	1550	1710
		5.1	1460	1780	1640	1820	2000	2120	1840	2040	2240	1870	2080	2290	1900	2110	2320
2 3/8 (60.33)	5.10	0.276	1330	1630	1480	1640	1800	1910	1610	1790	1970	1640	1820	2000	1670	1850	2040
		7.01	1810	2210	2010	2230	2450	2600	2180	2420	2660	2220	2470	2720	2270	2520	2770
	5.80	0.308	1650	1830	1860	2070	2280	2480	2130	2370	2610	2210	2450	2700	2270	2520	2770
		7.82	2240	2740	2530	2810	3090	3360	2890	3210	3530	2990	3320	3650	3090	3430	3770
	6.30	0.340	1920	2130	2150	2390	2630	2830	2440	2710	2980	2520	2800	3080	2610	2900	3190
		8.64	2600	3180	2910	3230	3550	3840	3310	3680	4050	3420	3800	4180	3540	3930	4320
	6.60	0.362	2050	2280	2300	2550	2810	3040	2620	2910	3200	2700	3000	3300	2780	3090	3400
		9.19	2780	3400	3110	3460	3810	4130	3560	3950	4350	3650	4060	4470	3780	4200	4620
	7.35	0.392	2460	2730	2750	3050	3360	3610	3110	3450	3800	3200	3550	3910	3300	3670	4040
		9.96	3330	4070	3730	4140	4550	4910	4210	4680	5150	4340	4820	5300	4480	4980	5480
	6.40	0.217	1730	1920	1850	2060	2270	2340	1990	2210	2430	2030	2250	2480	2060	2290	2520
		5.51	2340	2860	2520	2800	3080	3180	2680	2980	3280	2750	3050	3360	2790	3100	3410
	7.80	0.276	2440	2710	2750	3060	3370	3560	3100	3440	3780	3150	3500	3850	3200	3560	3920
		7.01	3300	4040	3730	4140	4550	4840	4190	4660	5130	4280	4750	5230	4350	4830	5310
	8.60	0.308	2840	3150	3190	3540	3890	4150	3590	3990	4390	3650	4060	4470	3720	4130	4540
		7.82	3850	4280	4320	4800	5280	5570	4830	5370	5910	4920	5470	6020	5020	5580	6140
	9.35	0.340	3250	3610	3640	4040	4440	4720	4080	4530	4980	4170	4630	5090	4240	4710	5180
		8.64	4410	4900	4920	5470	6020	6360	5580	6200	6820	5670	6300	6930	5760	6400	7040
2 7/8 (73.02)	9.80	0.362	3540	3930	3950	4390	4830	5130	4430	4920	5410	4510	5010	5510	4590	5100	5610
		9.19	4830	5370	5390	5990	6590	6930	6040	6710	7380	6140	6820	7500	6230	6920	7610
	10.50	0.392	3900	4330	4380	4870	5360	5670	4900	5440	5980	5000	5550	6110	5090	5650	6220
		9.96	5300	5890	5950	6610	7270	7720	6600	7330	8060	6790	7540	8290	6880	7640	8400
	10.70	0.405	4020	4470	4550	5060	5570	5900	5090	5660	6230	5190	5770	6350	5290	5880	6470
		10.29	5480	6090	6140	6820	7500	7950	6880	7640	8400	7070	7850	8640	7160	7950	8750
	11.50	0.440	4290	4770	4900	5440	5980	6610	5700	6330	6960	5900	6550	7210	6080	6760	7440
		11.18	5800	6440	6630	7370	8110	9000	7730	8590	9450	8010	8900	9790	8290	9210	10130



规格 Size (OD)	公称重量 Nominal weight	壁厚 Wall thickness	75-80-85 ksi			90-95-100 ksi			105-110-115 Ksi			120-125-130 ksi			135-140 Ksi			145-150-155 Ksi		
			min.	opti	max.	min.	opti	max.	min.	opti	max.	min.	opti	max.	min.	opti	max.	min.	opti	max.
in (mm)	lb/ft	in (mm)	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	
3 1/2 (88.90)	6.50	0.170	1410	1570	1730	1470	1630	1790	1530	1700	1870	1580	1750	1930	1610	1790	1970	1670	1850	2040
		4.32	1910	2120	2330	2000	2220	2440	2080	2310	2540	2130	2370	2610	2180	2420	2660	2250	2500	2750
	7.70	0.216	2090	2320	2550	2180	2420	2660	2270	2520	2770	2410	2680	2950	2500	2780	3060	2590	2880	3170
		5.49	2830	3140	3450	2950	3280	3610	3080	3420	3760	3270	3630	3990	3400	3780	4160	3520	3910	4300
	9.20	0.254	2680	2980	3280	2790	3100	3410	2930	3250	3580	3110	3450	3800	3220	3580	3940	3340	3710	4080
		6.45	3630	4030	4430	3790	4210	4630	3970	4410	4850	4210	4680	5150	4370	4850	5340	4530	5030	5530
	10.20	0.289	3280	3640	4000	3420	3800	4180	3580	3980	4380	3810	4230	4650	3950	4390	4830	4100	4550	5010
		7.34	4460	4950	5450	4620	5130	5640	4900	5440	5980	5180	5750	6330	5360	5950	6550	5540	6160	6780
	12.70	0.375	5080	5640	6200	5440	6040	6640	5640	6270	6900	5820	6470	7120	5940	6600	7260	6040	6710	7380
		9.53	6920	7690	8460	7380	8200	9020	7660	8510	9360	7940	8820	9700	8030	8920	9810	8210	9120	10030
	13.70	0.413	5750	6390	7030	6170	6850	7540	6380	7090	7800	6600	7330	8060	6720	7470	8220	6850	7610	8370
		10.49	7840	8710	9580	8400	9330	10260	8680	9640	10600	8950	9940	10930	9090	10100	11110	9360	10400	11440
14.30	0.430	6040	6710	7380	6500	7220	7940	6730	7480	8230	6960	7730	8500	7080	7870	8660	7220	8020	8820	
	10.92	8210	9120	10030	8770	9740	10710	9090	10100	11110	9450	10500	11550	9630	10700	11770	9810	10900	11990	
14.70	0.449	6350	7060	7770	6860	7620	8380	7100	7890	8680	7340	8160	8980	7480	8310	9140	7620	8470	9320	
	11.40	8580	9530	10480	9360	10400	11440	9630	10700	11770	9990	11100	12210	10170	11300	12430	10350	11500	12650	
15.50	0.476	6890	7650	8420	7540	8380	9220	8040	8930	9820	8320	9240	10160	8500	9440	10380	8640	9600	10560	
	12.09	9270	10300	11330	10260	11400	12540	10980	12200	13420	11250	12500	13750	11520	12800	14080	11700	13000	14300	
16.70	0.510	7380	8200	9020	8130	9030	9930	8690	9650	10620	8960	9960	10960	9180	10200	11220	9270	10300	11330	
	12.95	9990	11100	12210	11070	12300	13530	11790	13100	14410	12150	13500	14850	12420	13800	15180	12600	14000	15400	
8.20	0.190	2070	2300	2530	2160	2400	2640	2240	2490	2740	2320	2580	2840	2410	2680	2950	2500	2780	3060	
	4.83	2810	3120	3430	2930	3260	3590	3050	3390	3730	3140	3490	3840	3270	3630	3990	3390	3770	4150	
9.50	0.226	2730	3030	3330	2840	3160	3480	3020	3360	3700	3210	3570	3930	3340	3710	4080	3470	3850	4240	
	5.74	3690	4100	4510	3860	4290	4720	4100	4550	5010	4360	4840	5320	4530	5030	5530	4710	5230	5750	
10.90	0.262	3470	3850	4240	3610	4010	4410	3830	4260	4690	4080	4530	4980	4250	4720	5190	4400	4890	5380	
	6.65	4710	5230	5750	4900	5440	5980	5180	5750	6330	5540	6160	6780	5720	6360	7000	6000	6670	7340	
12.10	0.299	4230	4700	5170	4410	4900	5390	4680	5200	5720	4990	5540	6090	5180	5760	6340	5370	5970	6570	
	7.59	5720	6360	7000	6000	6670	7340	6370	7080	7790	6740	7490	8240	7020	7800	8580	7300	8110	8920	
13.20	0.330	4840	5380	5920	5060	5620	6180	5340	5930	6520	5680	6310	6940	5900	6560	7220	6120	6800	7480	
	8.38	6550	7280	8010	6830	7590	8350	7290	8100	8910	7750	8610	9470	8030	8920	9810	8310	9230	10150	

4  
(101.60)

宝钢BGT2特殊螺纹接头油套管产品  
Baosteel BGT2 Premium Connection Tubing and Casing Product

规格 Size (OD)	公称重量 Nominal weight	壁厚 Wall thickness	75-80-85 ksi			90-95-100 ksi			105-110-115 Ksi			120-125-130 ksi			135-140 Ksi			145-150-155 Ksi			
			min.	opti	max.	min.	opti	max.	min.	opti	max.	min.	opti	max.	min.	opti	max.	min.	opti	max.	
in (mm)	lb/ft	in (mm)	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.		
4 1/2 (114.30)	14.80	0.380	6440	7160	7880	6730	7480	8230	6980	7760	8540	7220	8020	8820	7350	8170	8990	7550	8390	9230	
		9.65	8730	9700	10670	9090	10100	11110	9450	10500	11550	9720	10800	11880	9900	11000	12100	10260	11400	12540	
		0.415	7290	8100	8910	7610	8450	9300	7890	8770	9650	8130	9030	9930	8320	9240	10160	8500	9440	10380	
		10.54	9810	10900	11990	10350	11500	12650	10710	11900	13090	11070	12300	13530	11250	12500	13750	11520	12800	14080	
		16.50	0.430	7630	8480	9330	7990	8880	9770	8260	9180	10100	8540	9490	10440	8690	9650	10620	8920	9910	10900
			10.92	10440	11600	12760	10800	12000	13200	11250	12500	13750	11610	12900	14190	11790	13100	14410	12060	13400	14740
		18.90	0.500	8910	9900	10890	9720	10800	11880	10170	11300	12430	10440	11600	12760	10620	11800	12980	10890	12100	13310
			12.70	12060	13400	14740	13230	14700	16170	13680	15200	16720	14130	15700	17270	14400	16000	17600	14670	16300	17930
		22.20	0.610	10980	12200	13420	12240	13600	14960	13050	14500	15950	13500	15000	16500	13770	15300	16830	13950	15500	17050
			15.49	14850	16500	18150	16560	18400	20240	17640	19600	21560	18270	20300	22330	18630	20700	22770	18900	21000	23100
		10.50	0.224	3000	3330	3660	3260	3620	3980	3510	3900	4290	3740	4160	4580	3920	4350	4790	4080	4530	4980
			5.69	4060	4510	4960	4410	4900	5390	4750	5280	5810	5130	5700	6270	5320	5910	6500	5500	6110	6720
		11.60	0.250	3620	4020	4420	3930	4370	4810	4230	4700	5170	4530	5030	5530	4730	5250	5780	4920	5470	6020
			6.35	4940	5490	6040	5320	5910	6500	5780	6420	7060	6160	6840	7520	6440	7150	7870	6710	7460	8210
		12.60	0.271	4140	4600	5060	4490	4990	5490	4850	5390	5930	5180	5760	6340	5410	6010	6610	5630	6250	6880
		6.88	5600	6220	6840	6060	6730	7400	6530	7250	7980	6990	7770	8550	7360	8180	9000	7650	8500	9350	
	13.50	0.290	4610	5120	5630	5000	5550	6110	5380	5980	6580	5750	6390	7030	5990	6660	7330	6240	6930	7620	
		7.37	6250	6940	7630	6800	7560	8320	7270	8080	8890	7830	8700	9570	8110	9010	9910	8490	9430	10370	
	15.10	0.337	5740	6380	7020	6220	6910	7600	6690	7430	8170	7140	7930	8720	7430	8260	9090	7730	8590	9450	
		8.56	7740	8600	9460	8390	9320	10250	9050	10050	11060	9720	10800	11880	10080	11200	12320	10440	11600	12760	
	17.00	0.380	6830	7590	8350	7360	8180	9000	7890	8770	9650	8410	9340	10270	8730	9700	10670	9090	10100	11110	
		9.65	9270	10300	11330	9900	11000	12100	10710	11900	13090	11340	12600	13860	11790	13100	14410	12240	13600	14960	
	17.70	0.402	7420	8240	9060	7990	8880	9770	8550	9500	10450	9090	10100	11110	9450	10500	11550	9810	10900	11990	
		10.21	10040	11150	12270	10860	12070	13280	11610	12900	14190	12330	13700	15070	12780	14200	15620	13320	14800	16280	
	18.90	0.430	8170	9080	9990	8820	9800	10780	9450	10500	11550	10080	11200	12320	10440	11600	12760	10800	12000	13200	
		10.92	11140	12380	13620	11970	13300	14630	12780	14200	15620	13680	15200	16720	14220	15800	17380	14670	16300	17930	
	21.50	0.500	10080	11200	12320	10440	11600	12760	11250	12500	13750	11880	13200	14520	12330	13700	15070	12780	14200	15620	
		12.70	13680	15200	16720	14220	15800	17380	15210	16900	18590	16200	18000	19800	16740	18600	20460	17370	19300	21230	
	23.20	0.560	11520	12800	14080	11880	13200	14520	12690	14100	15510	13500	15000	16500	14040	15600	17160	14580	16200	17820	
		14.22	15570	17300	19030	16110	17900	19690	17280	19200	21120	18360	20400	22440	18990	21100	23210	19710	21900	24090	

**BGT2 套管扭矩表**  
Properties of Baosteel premium connection tubing

规格 Size (OD)	公称重量 Nominal weight	壁厚 Wall thickness	75-80-85 ksi			90-95-100 ksi			105-110-115 Ksi			120-125-130 ksi			135-140 Ksi			145-150-155 Ksi			
			min.	opti	max.	min.	opti	max.	min.	opti	max.	min.	opti	max.	min.	opti	max.	min.	opti	max.	
in (mm)	lb/ft	in (mm)	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.	ft.lb. N.m.		
5 (127.00)	15.00	0.296 7.52	5010	5570	6130	5730	6370	7010	7880	7160	7950	8750	7520	8350	9190	7760	8620	9480			
			6800	7550	8310	7780	8640	9500	10680	9710	10780	11860	10190	11320	12450	10510	11680	12850			
	18.00	0.362 9.19	5730	6370	7010	6090	6770	7450	8200	7200	8350	9190	7880	8760	9640	8130	9030	9930			
			7780	8640	9500	8260	9180	10100	10740	9760	10740	11320	12450	10690	11880	13070	11030	12250	13480		
	21.40 (127.00)	0.437 12.14	8220	9130	10040	9310	10340	11370	12290	11170	11940	13130	14470	11840	13150	14470	12560	13960	15360		
			11140	12380	13620	12620	14020	15420	16650	15140	16190	17810	16050	17830	19610	17030	18920	20810			
	23.20	0.478 12.14	9660	10730	11800	10400	11550	12710	14470	13150	14740	16210	17060	13960	15510	17060	14420	16020	17620		
			13100	14550	16010	14090	15660	17230	19610	17830	19980	21980	23130	19560	21030	23130	19560	21730	23900		
	24.10	0.5 12.7	10890	12100	13310	12130	13480	14830	16460	14960	16460	18450	20500	13610	15120	16630	13610	15120	16630		
			14770	16410	18050	16450	18280	20110	22310	20280	22310	24500	25550	18450	20500	22550	18450	20500	22550		
	17.00	0.304 7.72	5360	5960	6560	6090	6770	7450	8320	7560	8350	9190	10040	7520	8220	9130	10040	8690	9650		
			7270	8080	8890	8260	9180	10100	11280	10250	11320	12450	13620	11140	12380	13620	111780	13090	14400		
20.00	0.361 9.17	5990	6650	7320	6390	7100	7810	8310	7550	8220	9130	10040	8220	9130	10040	8960	9960	10510			
		8120	9020	9920	9700	10780	11860	12620	10240	11260	12380	13620	11140	12380	13620	11140	12380	13620	111780	13090	14400
23.00	0.415 10.54	8220	9130	10040	8960	9960	10960	12710	11550	12710	13550	14880	10900	12320	13550	14880	12910	14340			
		11140	12380	13620	12150	13500	14850	16230	15660	17230	15030	16700	18370	16510	18340	20170	17490	19430	21370		
26.50 (139.70)	0.476 12.09	10750	11940	13130	11840	13150	14470	16640	15130	16640	18390	20400	15050	16720	18390	20400	17450	19390			
		16190	17810	19610	16050	17830	19610	22560	20510	22560	24940	26720	20400	22670	24940	27320	23660	26290	28920		
26.80	0.5 12.7	12080	13420	14760	13560	15070	16580	18390	16720	18390	20330	22550	16630	18480	20330	22550	18770	20860			
		16380	18200	20020	18390	20430	22470	24940	22670	24940	27570	29690	22550	25060	27570	29690	25450	28280	31110		
29.70	0.562 14.27	14750	16390	18030	16630	18480	20330	22570	20520	22570	24930	26860	20390	22660	24930	26860	23030	25470			
		20000	22220	24440	22550	25060	27570	30600	27820	30600	33790	36420	27650	30720	33790	36420	31230	34530	38170		
23.00	0.317 8.05	7520	8350	9190	8220	9130	10040	11370	10340	11370	12290	13550	10900	12320	13550	11780	13090	14400			
		10190	11320	12450	11142	12380	13620	15420	14020	15420	16650	18370	15140	16650	18370	19970	17740	19510			
26.00	0.362 9.19	8220	9130	10040	8960	9960	10960	12710	11550	12710	13550	14880	10900	12320	13550	14880	12910	14340			
		11140	12380	13620	12150	13500	14850	16230	15660	17230	15030	16700	18370	16510	18340	20170	17490	19430	21370		
29.00	0.408 10.36	9310	10340	11370	10050	11170	12290	13980	12710	13980	15730	17450	11840	13150	14470	11960	13290	14620			
		12620	14020	15420	13630	15140	16650	18390	16720	18390	20330	22550	16630	18480	20330	22550	18770	20860			
32.00 (177.80)	0.453 11.51	11090	12320	13550	12180	13530	14880	16640	15130	16640	18390	20400	14570	16190	17810	16050	17830	19610			
		15030	16700	18370	16510	18340	20170	22560	20510	22560	24930	26860	20390	22660	24930	26860	23030	25470			
35.00	0.498 12.65	13270	14740	16210	15050	16720	18390	20330	18580	20330	22550	24930	16630	18480	20330	22550	18770	20860			
		19980	19980	21980	20400	22670	24940	27590	25080	27590	29690	31990	24290	26990	29690	31990	27420	30470	33520		
38.00	0.54 13.72	15400	17110	18820	17180	19090	21000	20680	22750	20680	23100	25410	22180	24640	27100	23100	25470	28240			
		20880	23200	25520	23290	25880	28470	30840	28040	30840	33120	34450	28190	31320	34450	36750	31320	34530	38280		



# 国内外认证情况

## Product evaluation reports

### 宝钢 BGT2 油套管特殊螺纹接头评价试验报告

Evaluation and test report of Baosteel BGT2 tubing

加拿大 C-FER 公司和国家质量监督中心(中国石油天然气集团石油管工程研究院), 根据 ISO 13679 CAL IV 级试验标准, 分别完成共计四个规格的 BGT2 特殊螺纹油套管全尺寸评价试验, 试验过程中未发生粘扣、泄漏、断裂等功能和结构异常失效现象发生, 拉伸及压缩效率均按极限加载试验值均达到 100% VME。


Full-scale tests have been performed according to ISO 13679 CAL IV for tubing and casing with BG premium connection (BGT2)

- Tension = 100% PBYS
- Compression = up to 100%
- Bending = 20deg/100ft
- Internal Pressure = 100% PBYS
- External Pressure = 100% API

### 加拿大 C-FER 技术公司

C-FER Technologies, Canada

#### Φ 88.9mm × 6.45mm 110ksi




Final Report

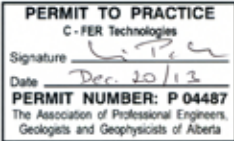
**3.5" 9.2 lb/ft  
BG110SS BGT2  
Tubing Premium  
Connection ISO  
13679 (2002) CAL IV  
Test Program**

Confidential to  
Baoshan Iron & Steel Co. Ltd.

Prepared by  
Kirk Hamilton, PEng  
Mark Droessler, EIT  
Chris Lam, MSc, PEng


Reviewed by  
Peter Kis, MSc, PEng





December 2013  
C215

#### Φ 177.8mm × 9.19mm 110ksi




Final Report

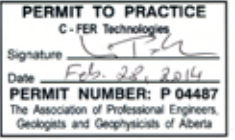
**7" 26 lb/ft BG110-3Cr  
BGT2 Casing Premium  
Connection ISO 13679  
(2002) CAL IV Test  
Program**

Confidential to  
Baoshan Iron & Steel Co. Ltd.

Prepared by  
Kirk Hamilton, PEng  
Mark Droessler, EIT

Reviewed by  
Peter Kis, MSc, PEng





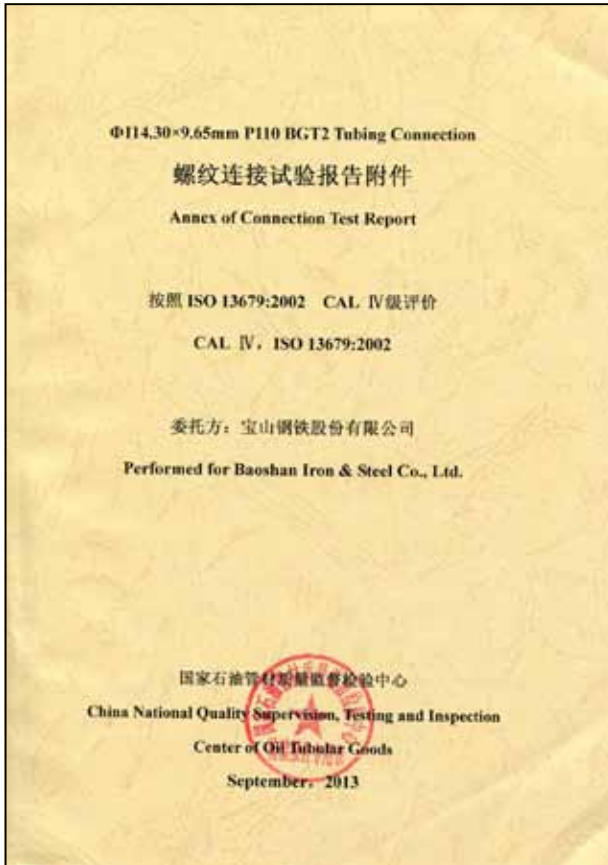
February 2014  
C215

宝钢BGT2特殊螺纹接头油套管产品  
Baosteel BGT2 Premium Connection Tubing and Casing Product

## 国家石油管材质量监督检验中心

National Quality Supervision, Testing and Inspection Center of Oil Tubular Goods

### Φ88.9mm × 6.45mm 110ksi



## 用户使用业绩

### Service and applications

目前，BGT2 特殊扣油管已经在中石油、中石化各大油田及国外油田中广泛应用。

类型 Type	产品规格和钢级 Product specification and steel grade	用户 Customer
油管 Tubing	Φ88.9mm×6.45mm BG13Cr-110S	华北油田 North China Oil Field
	Φ73.02mm×5.51mm BG13Cr-110S	吉林油田 Jilin Oil Field
	Φ88.9mm×6.45mm BG13Cr-110S	
	Φ114.3mm×8.56mm P110	
	Φ114.3mm×10.92mm P110	江汉油田 Jianghan Oil Field
	Φ88.9mm×6.45mm BG80-3Cr	辽河油田 Liaohu Oil Field
	Φ60.32mm×4.83mm P110 Φ73.02mm×5.51mm L80-13Cr Φ88.9mm×6.45mm L80-13Cr Φ88.9mm×9.52mm P110 Φ114.3mm×6.88mm L80-1/L80-3Cr	ONGC (India)
套管 Casing	Φ127mm×9.19mm P110	大港油田 Dagang Oil Field
	Φ139.7mm×9.17mm L80-13Cr	ONGC (India)
	Φ200.03mm×10.92mm BG110SS	塔里木油田 Tarim
	Φ244.48mm×11.99mm BG125	江汉油田 Jianghan Oil Field

宝钢BGT2特殊螺纹接头头套管产品 Baosteel BGT2 Premium Connection Tubing and Casing Product

下井使用报告 Used reports from customers

**宝钢产品使用报告**

规格	Φ89.3x6.35	钢级	BGT2-1105
材料牌号	8622	合同号	201401012
执行标准	15053	壁厚范围	540mm
材料厚度	520%	最大屈服强度	470MPa
抗内压强度	500%	平均抗拉强度	610MPa
静载屈服强度	443MPa		
材料名称	非上油管	井名	惠13-2井
井别	天然气井	井别	河北省承德市承德县二道河乡大营村
施工井队	1083102	井队负责人	李之宁
设计井队	4430a	设计负责人	李永文
完井井队	4430a	完井负责人	李
施工类型	套管入井	施工队	管道队
施工井号	X1014/209	施工负责人	张立斌
材料规格/钢级	符合API标准	材料重量/长度	12.5t
材料规格/日期	2014年1月1日	材料规格/日期	2014年1月1日
材料厚度	520% ± 0.05mm	材料厚度	5
管节长度	400m	入井数量	4100
管节重量	400m	入井日期	2014
管径	21.3mm	下井日期/时间	2014年1月1日
实际下井长度	1740m	下井日期/时间	2014年1月1日
试验数据	400%	试验	11-11

1. 现场作业人员按照本规程要求进行施工。  
2. 下井过程中，上提管串，每提管串前须先进行试提，确认无卡阻。  
3. 下井过程中，发生异常情况，应立即停止下井，查明原因。  
4. 本井施工过程中，发生异常情况，应立即停止下井，查明原因。  
5. 本井施工过程中，发生异常情况，应立即停止下井，查明原因。

井口名称: 惠13-2井  
井口位置: 河北省承德市承德县二道河乡大营村  
井口直径: 89.3mm  
井口深度: 4522m  
井口压力: 110MPa  
井口温度: 110℃

井口负责人: 李永文  
井口日期: 2014.1.1

**宝钢产品使用报告**

规格	Φ89.3x6.35	钢级	BGT2-1105
材料牌号	8622	合同号	201401012
执行标准	15053	壁厚范围	540mm
材料厚度	520%	最大屈服强度	470MPa
抗内压强度	500%	平均抗拉强度	610MPa
静载屈服强度	443MPa		
材料名称	非上油管	井名	惠13-2井
井别	天然气井	井别	河北省承德市承德县二道河乡大营村
施工井队	1083102	井队负责人	李之宁
设计井队	4430a	设计负责人	李永文
完井井队	4430a	完井负责人	李
施工类型	套管入井	施工队	管道队
施工井号	X1014/209	施工负责人	张立斌
材料规格/钢级	符合API标准	材料重量/长度	12.5t
材料规格/日期	2014年1月1日	材料规格/日期	2014年1月1日
材料厚度	520% ± 0.05mm	材料厚度	5
管节长度	400m	入井数量	4100
管节重量	400m	入井日期	2014
管径	21.3mm	下井日期/时间	2014年1月1日
实际下井长度	1740m	下井日期/时间	2014年1月1日
试验数据	400%	试验	11-11

1. 现场作业人员按照本规程要求进行施工。  
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井口深度: 4522m  
井口压力: 110MPa  
井口温度: 110℃

井口负责人: 李永文  
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井口温度: 110℃

井口负责人: 李永文  
井口日期: 2014.1.1

**宝钢产品下井使用报告**

产品名称	BGT2 气举管	规格	139.7x12.7mm
生产单位	宝山钢铁股份有限公司	钢级	BGT25V
供货单位	承德石油高等专科学校（集团）有限公司	供货日期	2014年5月
合同号	SC00040314-WC2-XYS-01-02-113	井号	惠13-2井
使用单位	河北省承德市承德县二道河乡大营村	井深	4522米
井队名称	承德石油高等专科学校（集团）有限公司	下井数量	400支
井队队长	孔庆刚	下井日期	2014年5月24日

1. 现场作业人员按照本规程要求进行施工。  
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井口温度: 110℃

井口负责人: 李永文  
井口日期: 2014.5.24



## 钢级表

Grade table

API 钢级 API grade		J55 K55 M65 N80-1 N80-Q L80-1 L80-9Cr L80-13Cr C90-1 R95 T95-1 C110 P110 Q125-1
宝钢 牌号 BG	高钢级 High strength resistant	BG140 BG150 BG160
	高抗挤 High collapse resistant	BG80T BG80TT BG110T BG110TT BG125T BG125TT
	耐低温 Low temp. resistant	BG55L BG80L BG90L BG95L BG110L BG125L
	耐高温 High temp. resistant	BG80H BG90H BG95H BG110H
	抗硫+高抗挤 H <sub>2</sub> S+High collapse resistant	BG80TS BG90TS BG95TS BG110TS
	低Cr+抗CO <sub>2</sub> 腐蚀 Low Cr+CO <sub>2</sub> resistant	BG55-1Cr BG80-1Cr BG80-3Cr BG80-5Cr BG90-3Cr BG90-5Cr BG95-5Cr BG110-3Cr BG110-5Cr
	低Cr+抗CO <sub>2</sub> +H <sub>2</sub> S腐蚀 Low Cr+CO <sub>2</sub> +H <sub>2</sub> S resistant	BG80S-3Cr BG80SS-3Cr BG90S-3Cr BG90SS-3Cr BG95S-3Cr BG95SS-3Cr BG110S-2Cr
	抗H <sub>2</sub> S腐蚀 H <sub>2</sub> S resistant	BG55S BG80S BG90S BG95S BG110S BG55SS BG80SS BG90SS BG95SS BG110SS BG125S
	抗CO <sub>2</sub> 腐蚀 CO <sub>2</sub> resistant	BG90-13Cr BG95-13Cr BG13Cr110 BG13Cr110U
	高抗CO <sub>2</sub> 腐蚀+抗微量H <sub>2</sub> S腐蚀 CO <sub>2</sub> +H <sub>2</sub> S resistant	BG13Cr110S BT-S13Cr110
	镍基合金 Ni-based	BG2830-110 BG2830-125 BG2532-110 BG2532-125 BG2242-110 BG2242-125 BG2235-110 BG2235-125 BG2250-110 BG2250-125



## 宝钢特殊螺纹附件 Baosteel premium connection accessories

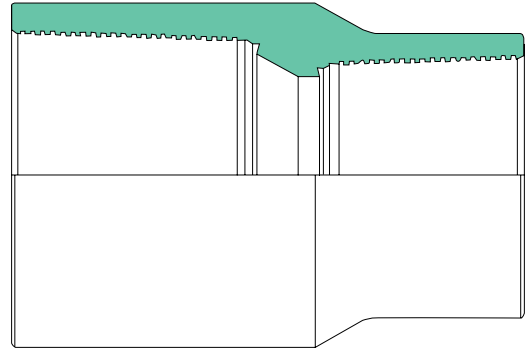
### ◆◆◆ 宝钢特殊螺纹转换接头 Premium connection cross-over joint

特殊螺纹转换接头设计特点：

- 1、采用接箍变径或变扣方式，转换接头两端皆为内螺纹；
- 2、螺纹和密封表面作镀铜处理；
- 3、精密数控机床制造。

The design features of the premium connection cross-over joint are as follows:

1. Alternative coupling diameter or thread change are adopted, with female threads in both ends;
2. Thread and seal plane are copper plated;
3. Manufactured by precision CNC machine.



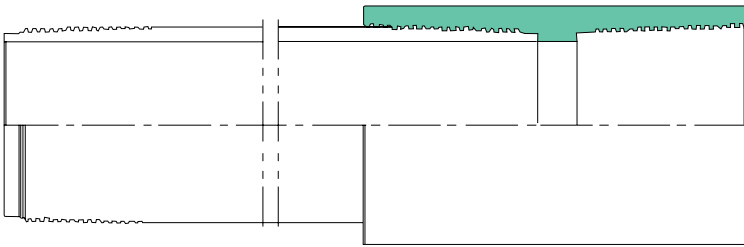
### ◆◆◆ 宝钢特殊螺纹接头短节 Premium connection pup joint

特殊螺纹短节设计特点：

- 1、用一端公扣，另一端拧接箍形式；
- 2、接箍螺纹和密封表面作镀铜处理；
- 3、短节长度按用户合同要求；
- 4、精密数控机床制造。

The design features of the premium connection pup joint are as follows:

1. One pin end, another end with coupling;
2. Coupling thread and seal plane are copper plated;
3. Pup joint lengths are made to order;
4. Manufactured by precision CNC machine.



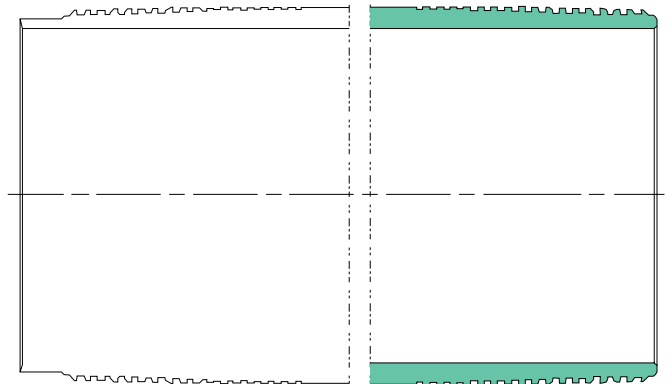
### ◆◆◆ 宝钢特殊螺纹接头悬挂短节 Premium connection suspension joint

特殊螺纹悬挂短节设计特点：

- 1、两端均采用公螺纹形式；
- 2、悬挂短节螺纹形式，一端为宝钢特殊螺纹结构（图左端）。另一端为用户要求螺纹结构，可以是 API 螺纹或平端（图右端）；
- 3、悬挂短节长度满足用户要求；
- 4、精密数控机床制造。

The design features of the premium connection suspension joint are as follows:

1. Pin-threads are used for both ends;
2. Thread type: One end: Baosteel premium connection (see left side of the figure, another end as per customers' requirements, either API threads or plain end);
3. Suspension joint lengths are made to order;
4. Manufactured by precision CNC machine.



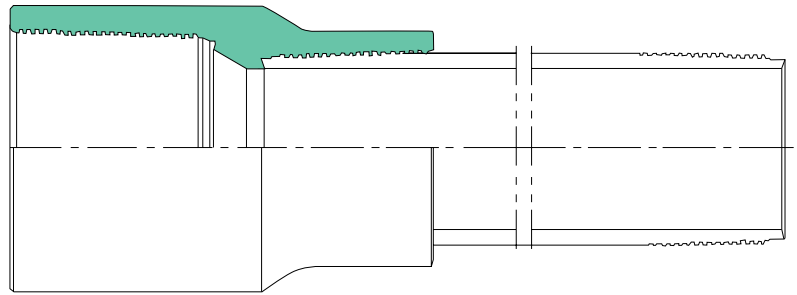
### ◆◆◆ 宝钢特殊螺纹接头转换短节 Premium connection X-over pup joint

特殊螺纹转换短节设计特点：

- 1、采用接箍变径方式；
- 2、接箍螺纹和密封表面作镀铜处理；
- 3、短节长度满足用户要求；
- 4、精密数控机床制造。

The design features of the premium connection X-over pup joint are as follows:

1. Alternative coupling diameter;
2. Coupling thread and seal plane are copper plated;
3. Pup joint lengths are made to order;
4. Manufactured by precision CNC machine.



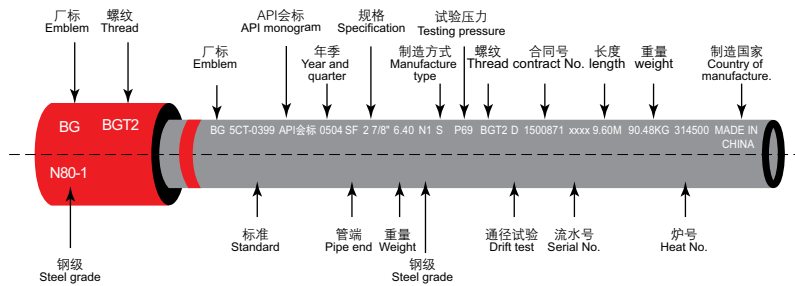
## 产品标记 Product marking

喷印内容:BG+5CT-0399+API会标+制造日期+SF+规格+重量+钢级+制造方法+试验压力+BGT2+D+合同号+管子流水号+长度+重量+炉号+MADE IN CHINA。

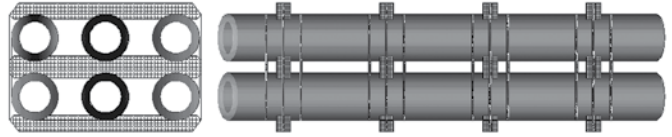
对于小于 1830mm 的短节,上述漆印内容可打印并粘贴在距管端 305mm 范围内的管体外表面上,标记内容应沿管体轴向排布。

Stencil marking content: BG+5CT-0399 + API monogram + date of manufacture + SF + dimension + weight + steel grade + manufacture process + testing pressure + BGT2 + D + contract No. + serial No. + length + weight + heat No. + MADE IN CHINA.

For the pupjoint less than 1830mm, the above-mentioned marking content can be printed and pasted on the outer surface of tube body within 305mm from tube end, and the marking content shall be arranged in the direction of tube body axis.



## 产品包装要求 Packing specifications



- \* 支架包装, 油管每包重量 $\leq$  2000kg, 套管每包重量 $\leq$  2500kg。
- \* 短节木箱包装, 油管每箱 $\leq$  10 根, 套管每箱 $\leq$  6 根。
- \* 每根管子和短节的螺纹端, 均应涂均匀螺纹脂 ( 或者合同要求的其他防护脂), 并戴上保护环 ( 包括内、外)。
- \* Support packaging: each package of tubing weighs  $\leq$  2000kg, while each package of casing  $\leq$  2500kg.
- \* Wooden crate packing for pup joints: each crate of tubing weighs  $\leq$  10 pieces, while each crate of casing  $\leq$  6 pieces.
- \* Apply an even thread compound (or other protective compound to order) to the threaded end of each tube and nipple, and put on protectors rings (incl. pin and box).

## 用户使用指南 User's guide

### 下管准备作业:

- 1、管架上摆放的钢管不得超过五层, 在摆放的每一层钢管之间应放置木条。
- 2、在移动或使用钢管时, 请随时装上护丝, 钢管应轻拿轻放。
- 3、确认下管用的各种工具装置是否备齐并处于良好状态, 包括: 吊卡、卡瓦、吊环、大钳等工具。应检查卡盘和吊卡上的卡瓦, 并注意使它们一起下放。应检查吊卡, 注意吊卡活门门是否完好。两个吊环长度应相等。天车、游车、井口是否对准。
- 4、确认各种井下附件、短管、引扣器、悬挂器是否备齐, 并处于可使用状态。
- 5、油管第一次下井之前, 应该使用API通径规进行通径检验, 以保证抽油泵、抽油活塞和分离器通过。每根套管应进行全长通径检验, 所用通径规应符合最新出版的API SPEC 5CT要求, 通径不合格的油、套管不得使用。
- 6、对长油、套管柱, 推荐使用上、下卡瓦式吊卡。卡盘和卡瓦应保持洁净, 没有损伤, 并配合适当。对重套管柱, 应使用超长卡瓦。卡盘必须保持水平。
- 7、为了避免不必要的管壁刮削, 在油管管体上应使用不挤坏油管的油管钳, 并使其配合适当。油、套管钳板牙装配合适, 与油、套管曲率一致, 不推荐使用手管钳和扭矩过大, 上扣速度过快的液压钳。油套管钳必须带有扭矩曲线显示和记录仪。
- 8、下管前, 从管端和接箍端卸下护丝, 彻底清洗内、外螺纹表面, 直到全部螺纹和密封面裸露为止, 最好在溶剂洗净后, 再用压缩气吹干。
- 9、仔细检查每根钢管螺纹和密封面, 若发现螺纹和密封面损伤, 应挑出, 并可采取有效措施进行修补。
- 10、下油套管前, 应测量每根管子的长度, 测量采用毫米精度的钢卷尺, 从接箍 ( 或内螺纹接头) 最外端面测量到外螺纹指定位置, 该位置是机紧时接箍 ( 或内螺纹接头) 终止位置。这样, 测量的油套管总长度代表了油套管柱的自然长度 ( 无载荷伸长) 。

### 下管准备作业:

- 11、确认是否备有充足的螺纹脂。全部内、外螺纹表面应充分涂上符合API RP 5A3标准的螺纹密封脂。推荐使用Bestolife2000型螺纹脂。
- 12、用于提升的连接管和短节，应认真检查其螺纹和密封面质量，且保证与油套管螺纹和密封面的互换性。
- 13、对于高压油气井或凝析油井，为保证接头密封性能且便于操作，可要求工厂将接箍和油管分装运输，或要求工厂将接箍上紧到超过手紧位置一圈的程度。在油管内、外螺纹上涂抹螺纹脂，按规定扭矩上紧接箍。
- 14、油套管提上井架时应小心操作，不要将其弄弯，不要碰伤接箍或护丝，要确保大钩与井口处于同一垂直线上。
- 15、应检查每个接箍是否上紧。如果紧密距异常大，则应检查接箍是否装紧。在管子提升到井架上以前，所有的接箍应上紧。

### Preparation before running:

- 1、The maximum amount of tubes on the rack shall not exceed 5 layers, and wooden strips should be laid between layers.
- 2、Please put on thread protector before moving or using tubes, and then handle them with care.
- 3、Make sure such tools for running as elevator, slips, links, tongs etc. are all ready and in good condition. Check the spider and the slips on the elevator, and lower them down together. Check the elevator to ensure the latch of the elevator valve in good condition. Keep the two links equally long. Align the crown block, traveling block and the well mouth.
- 4、Make sure various down-hole accessories, pup joints, stabbing pilot and hanger are ready for operation.
- 5、Before the initial running in the hole, drift tubing with an API drift mandrel so as to ensure passage of pumps, swabs, and dividers. Each casing must pass the full length drift test with a mandrel as specified by the latest version of API SPEC 5CT. Any and all casing and tubing that fail in the drifting must be rejected.
- 6、Slip elevators are recommended for long casing strings. Spider and elevator must be clean and damage-free and properly match one with another. Extra-long slips must be used for heavy casing strings. The spider must be level.
- 7、Use the proper tubing tongs that don't damage tubing body and get them well matched, so as to avoid scratches. Properly fit the tong dies, according to the string curvature. It is not advisable to use the pipe wrenches or the hydraulic wrenches that lead to too big torque and too quick makeup. Casing tongs must be equipped with torque curve display and record devices.
- 8、Just before running, remove thread protectors from both field end and coupling end, clean the threads thoroughly with solvent until all the threads and sealing faces are exposed, and then dry them with compressed air.
- 9、Carefully inspect every tube's threads and sealing face. Pick up the tubes with threads or sealing face damaged, and then do an effective repair, if possible.
- 10、Measure each casing's length before running. With a steel tape in mm accuracy, cover from the outermost face of coupling (or female thread joint) to the designated position at the male thread end, where the coupling or the box stops when the joint is made up. The so-measured total length of casing stands for the natural length of casing string (or without load extension).
- 11、Check whether there is sufficient thread compound in stock. Apply the thread sealing compound as specified by API RP 5A3 to all the female and male threads. It is advisable to use the thread compound Bestolife 2000.
- 12、Carefully check the quality of the threads and sealing face of the connectors and pup joints for lifting, and ensure their compatibilities with those of tubing and casing.
- 13、When used in high pressure oil-gas well and oil-condensate well, tubes may be ordered with the couplings shipped separately, or with couplings handled tight, approximately one turn more than hand tight, in order to ensure the connection sealing and easy operation. Apply thread compound to both interior and exterior threads, and make up the coupling as per specified torque.
- 14、When tube is pulled into the derrick, take care to prevent the tube from being bent and coupling or protector from being bumped. Ensure that the tongs stays in line with the hole.
- 15、Check whether each coupling is well made up. If the standoff is abnormally great, check the coupling for tightness. Tighten any loose couplings before pulling the tube into the derrick.

### 下管作业：

- 1、应将管子用吊索从管架吊至钻机的坡板，吊管时应把母扣部位吊起，使用吊卡或提升缆把管子吊至井架上。
- 2、在准备对扣之前，油套管的护丝不得卸下。如有必要，对扣前，可对螺纹和密封面表面涂抹螺纹脂。用于涂抹螺纹脂的刷子或用具不得有异物，同时螺纹脂不得稀释。
- 3、把最初的管子插入转盘开始下管，将母扣护丝卸下，把下一根接头吊移到井架上，并将公扣护丝摘掉，推荐进行清洗检查，在螺纹和密封面部位涂上螺纹脂。吊起的管子公扣端应与转盘无接触。
- 4、对扣时，必须使用引扣器，并应小心下放管子，以免损伤密封面及螺纹，应垂直对扣，并有人站在扶正台上帮助进行。对扣后，若管柱往一侧倾斜，应立刻提起，重新卸扣、清洗，并用三角锉刀修理损伤的螺纹面，仔细检查密封面，然后仔细清除任何挫屑，并在螺纹表面重新涂上螺纹脂。
- 5、下双根或三根油管时，应小心操作，以避免油管过重而引起弯曲和对中误差，为了防止油管弯曲，可以在井架上安置中间支架。
- 6、螺纹对好后，开始用手或动力大钳缓慢上扣，在井场上紧接头时，为防止粘扣，任何时候上扣速度都不得超过25r/min，最后拧紧时要放低速度，最好是10r/min以下，而且按规定扭矩上扣。要注意，固定大钳应置于加厚部位或接箍之下。紧扣时不使用管扳手。
- 7、现场上扣应按工厂给定的上扣位置和扭矩进行操作。
- 8、在现场反复上紧的情况下，油管接头的使用寿命与上紧扭矩成反比。因此，对防漏要求不很严的油井，可采用最小现场上紧扭矩值，以延长接头寿命。
- 9、在上紧时，若管子摆动，可降低上紧速度，以免损伤螺纹和密封面。如果降低上紧速度后，管子仍摆动，需卸下检查。
- 10、在现场上紧时，可能会发现由工厂机紧的接箍端仍转动上紧，在并不表明工厂机紧的接箍太松，而只说明接箍的现场上紧端已达到工厂上紧端的程度。
- 11、应很慎重地搞清楚井底工况，油管下放时不能太猛。
- 12、套管柱应小心提升和下放，放置卡瓦时应小心操作，避免突变载荷和管柱下到井底。
- 13、设计套管柱时，应有明确的说明，包括各种钢级的套管在管柱中的正确配置、套管的重量和接头类型。在下放管柱时，应按设计程序正确而仔细地操作。
- 14、为便于下管和保证有足够的流体静压控制油层压力，在下套管过程中，应定期灌注泥浆。大多数情况下，每6-10根管子灌注一次泥浆。
- 15、卡盘的卡瓦和吊卡应经常清洗，卡瓦应没有损伤。



### Running Operation:

- 1、Lift the tube with a sling rope from the rack to the slope board of the drill, box upward, and then lift the tube with elevator or hanger rope to the derrick.
- 2、Do not remove thread protector from field end of the tube until getting ready to stab. If necessary, apply thread compound to the threads and the sealing face before stabbing. Keep the brush and other tools for compound application free of impurities and don't dilute the compound.
- 3、Start running with the first tube inserted into the turntable. Then, remove the box protector, lift the next connector to the derrick and remove the pin protector. It is advisable to do a cleaning and check. Apply thread compound to threads and sealing face. Keep the pin of the lifted tube away from the turntable.
- 4、Use the stabbing pilot for stabbing. Lower the tube with care so as to prevent the threads and sealing face from being broken. Stab vertically, with the help of a supporting person on the stabbing board. If the casing stand inclines after that, lift it up immediately, and redo the breakout, cleaning and repair broken thread with a triangular file. Then carefully check the sealing face, clean away filings and apply thread compound to the threads.
- 5、When running doubles or triples, take care to prevent bowing and erroneous aligning due to the too heavy tubing resting on the coupling threads. Intermediate supports may be placed at the derrick to limit tubing's bowing.
- 6、After stabbing, screw up gently by hand or by power tubing tongs. In order to prevent galling when making up the joint at the field, always keep the making-up speed within 25r/min. When doing the final tightening, it is advisable to control the speed within 10r/min and with the specified torque. Pay attention: keep the fixing tongs under the upset part or the coupling. Don't use pipe wrench for tightening.
- 7、Carry out the makeup at field according to the made-up position and torque as specified by the manufacturer.
- 8、The tubing joint life varies inversely against the field makeup torque applied, if the make-up is repeated. So, it is advisable to use the minimum field makeup torque for a longer joint life, if the well doesn't require a very strict sealing.
- 9、Lower down the speed so as to prevent the thread and seal from being broken, if the tube swings during make-up. But, if the swing doesn't stop after speed reduction, remove the tube for inspection.
- 10、During field makeup, the coupling is likely to have some slight make-up on the mill end. This shows that the field make-up of coupling is as tight as the workshop make-up, instead of the loose workshop make-up.
- 11、Be prudent and look into the bottom. Gently set the tube down.
- 12、Carefully lift up and down the casing strings, and set slips with care to avoid abrupt loads and dropping of strings.
- 13、When designing casing strings, give specific instructions on how to properly locate various grades of steel, and on what weights of casing and what types of joints to be used. Properly run the string exactly according to the designed procedures.
- 14、In or to facilitate running and ensure adequate hydrostatic head to contain reservoir pressures, the casing should be periodically filled, while running it. In most cases, one filling is needed for every 6 to 10 lengths.
- 15、Spider slips and elevators should be cleaned frequently, and slips should be kept sharp.

### 提管准备作业:

- 1、建议使用卡瓦式吊卡。
- 2、使用动力大钳和固定大钳。
- 3、准备立管用的木板和清洁的公扣护丝。

### Preparation for Tube Pulling:

- 1、Application of slip elevator is recommended.
- 2、Apply power tongs and fixing tongs.
- 3、Prepare wooden boards for standpipe and clean protectors of pin thread.

### 提管作业：

- 1、卸扣动力大钳应位于靠近接箍但不很近的地方,固定大钳要装在接箍上,以确保在接箍的上端脱扣。管子松扣后,用手或动力大钳低速卸扣。接头脱扣后,应立即将其公扣装上护丝。
- 2、在管子从接箍中提出以前,应格外小心地松开全部螺纹,不能让管子从接箍中突然跳出。
- 3、排放在井架上的油管应适当支撑,以避免过度的弯曲,最好连接成长度约为60 ft的立柱或相当于两根2级油管长度的立柱提升。在离开位置以前,油管应一直稳固地栓在油管立柱盒内。
- 4、为使油管和接头磨损均匀,每次起出油管后,都要将上部管段与下部管段相互调换。
- 5、强拉使油管柱松开后,拉出的全部接头应重新上紧。
- 6、管子在存放,应检查管体、螺纹和密封面。所有螺纹和密封面应清洗,加润滑油或涂上防腐材料,使其尽可能减少腐蚀,并应戴上干净护丝。对有缺陷的接头应作上标记,以便交付检修并重新测量。
- 7、再下管重新使用前,应确保螺纹和密封面干净、无损伤,并涂好螺纹脂。

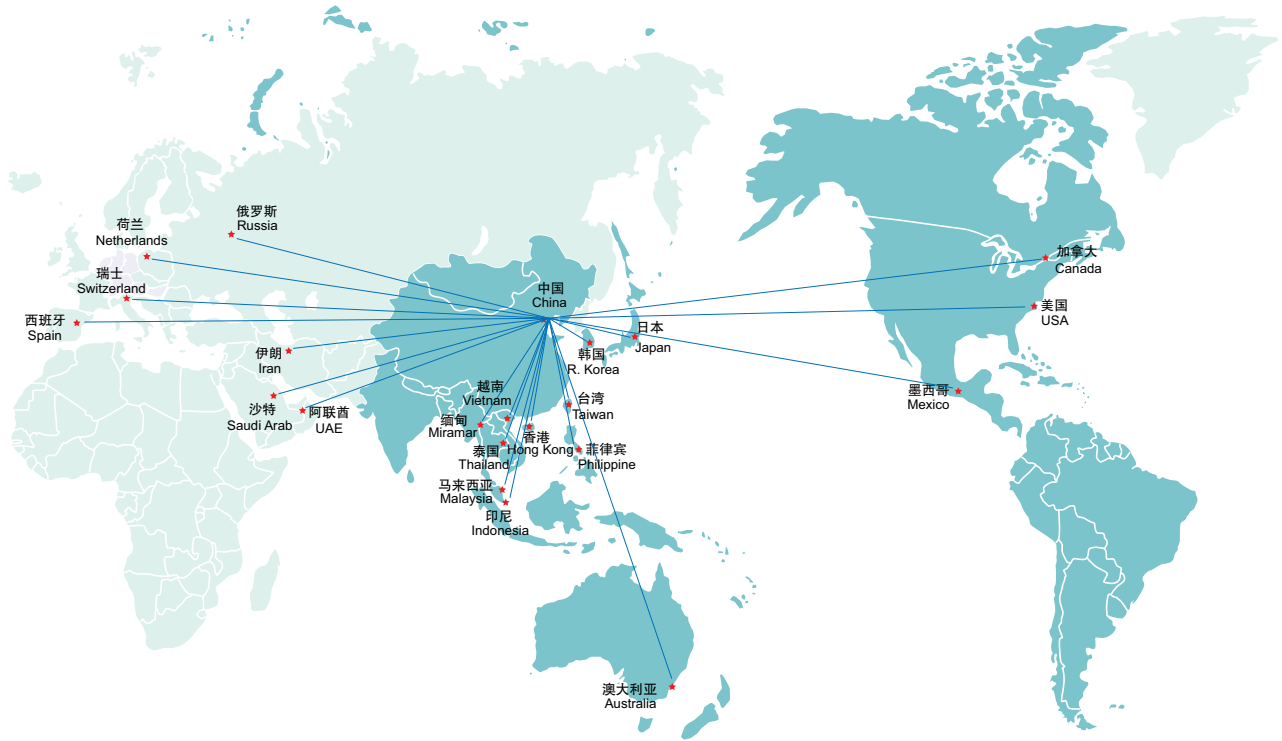
注:13Cr油套管用户使用指南见宝钢13Cr油套管手册。

### Tube Pulling:

1. Breakout tongs should be positioned close to the coupling but not too close, while fixing tongs should be placed on the coupling to breakout from the upper part coupling. After the coupling is loosened, disengage the coupling with hand or breakout tongs. Place the protector to the pin immediately after coupling is disengaged.
2. Great care should be exercised to disengage all of the threads before lifting the tube out of the coupling. Do not let the tube jump out of the coupling.
3. Tubing set back in the derrick should be properly supported to prevent undue bending. Tubing should be pulled in stands approximately 60 ft long or in doubles of range 2. Before leaving a location, always firmly tie a setback of tubing in place.
4. Distribute joint and tubing wear by moving a length from the top of the string to the bottom each time the tubing is pulled.
5. After a hard pull to loosen a string of tubing, all joints pulled out should be retightened.
6. Check the body, thread and sealing face of the tube before storage. All threads should be cleaned and lubricated or coated with such material as to minimize corrosion. Clean protectors should be placed on the tubing. Mark those couplings with defect for repairing and re-measuring.
7. Make sure threads are undamaged, clean, and well coated with compound before rerunning.

Note: Baosteel instruction manual of 13Cr casing can serve as the operation guide of 13Cr casing.





## 附录 Annex

在文中有些数据采用了英制单位。英制与米制单位的换算系数如下

1 in=25.4 mm

1 in<sup>2</sup>=645.16 mm<sup>2</sup>

1 ft=0.3048 m

1 lb=0.454 kg

1 lb/ft= 1.4882 kg/m

1 psi=0.0703kg/cm<sup>2</sup>=0.006895MPa (应力)

1 ft-lb =1.355818 J (冲击功)

=1.355818 N · m (扭矩)

British system is applied to some of the data in the text.

Conversion between the British system and the Metric system are as follows:

1 in=25.4 mm

1 in<sup>2</sup>=645.16 mm<sup>2</sup>

1 ft=0.3048 m

1 lb=0.454 kg

1 lb/ft= 1.4882 kg/m

1 psi=0.0703kg/cm<sup>2</sup>=0.006895MPa (stress)

1 ft-lb =1.355818 J (ballistic work)

=1.355818 N · m (torque)





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**Tube, Pipe and Bar Business Unit**

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邮编: 200940  
电话: 021-26643011 26642432  
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