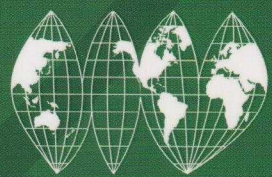
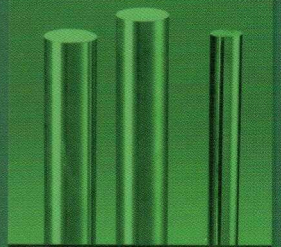


GMTC GLORIA MATERIAL TECHNOLOGY CORP. BROCHURE

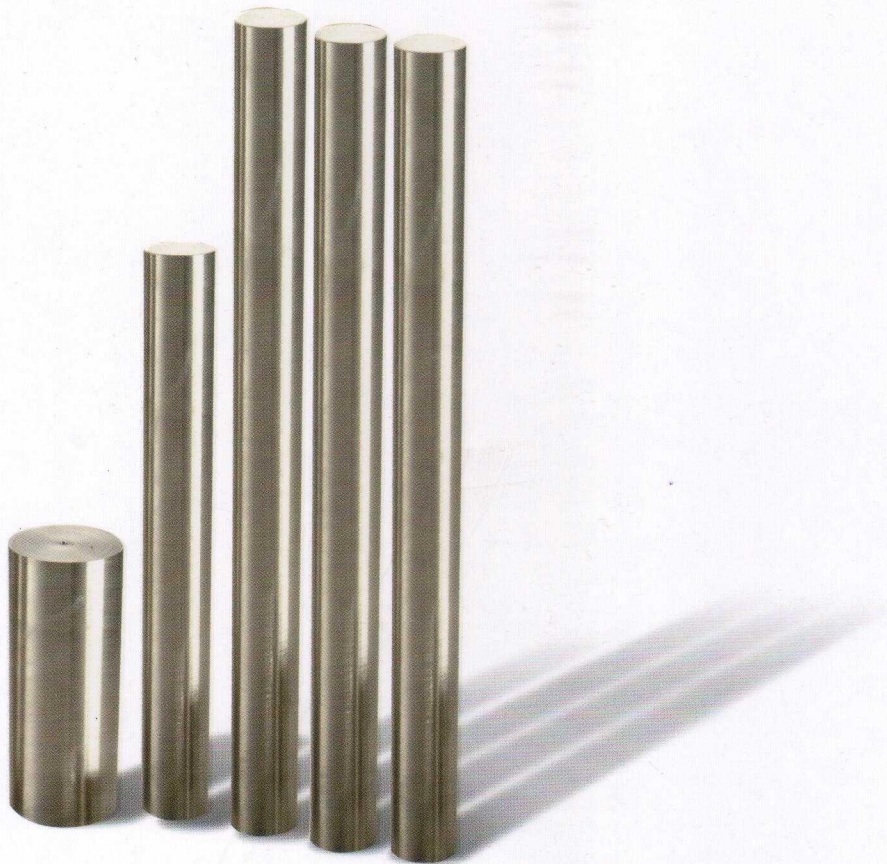


THE PROFESSIONAL SUPPLIER



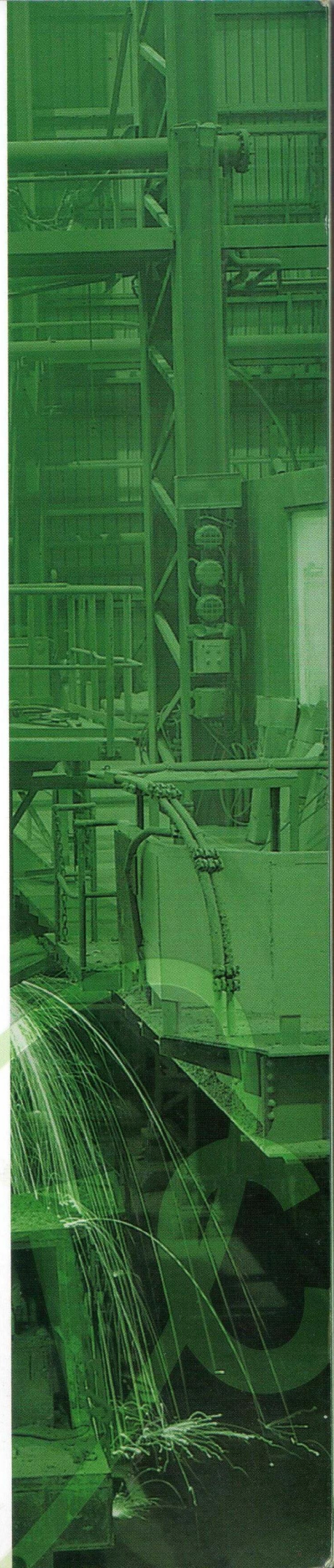


**GLORIA MATERIAL
TECHNOLOGY CORP.**



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GMA

Historical Development

- Apr . 1993 Gloria formally established.
- Sep . 1993 Acquired ISO 9002 from BCIQ.
- Jan . 1995 Acquired P-H H.S.S. Leading Plan from Industrial Development Bureau.
- Aug . 1996 Acquired ISO 9001 from DQS Germany.
- Jan . 1997 Acquired Commercial Titanium Alloy Leading Plan from Industrial Development Bureau.
- Apr . 1998 Honored to be awarded for Industrial Technology Advancement in Taiwan R.O.C.
- Oct . 1998 Listed on the Taiwan OTC Exchange.
- May . 1999 Acquired Duplex Stainless Steel Leading Plan from Industrial Development Bureau.
- Jun . 1999 Acquired ISO 14001 from SGS.
- Jul . 1999 Renamed as Gloria Material Technology Corporation.
- May . 2000 Awarded as GEPS supplier and Lab. Accreditation.
- Feb . 2002 Awarded as "Excellent Emerging supplier" by GEPS.
- Sep . 2003 Awarded as Siemens AG supplier.
- Sep . 2003 Awarded as Hitachi supplier.
- Feb . 2004 Awarded as Toshiba supplier.
- Mar . 2004 Awarded as Mitsubishi supplier.
- Jan . 2006 Awarded as Smiths supplier.
- Jun . 2006 Acquired AS9100 from QMI.
- Aug . 2006 Awarded as Boeing supplier.
- Aug . 2006 Awarded as Stryker supplier.
- Sep . 2006 Awarded as Westland supplier.
- Sep . 2006 Awarded as Moog supplier.
- Feb . 2007 Awarded as Bombardier supplier.
- May . 2007 Awarded as Curtiss Wright supplier.
- Nov . 2007 Acquired Nickel-based superalloy 718 of Leading Plan from Industrial Development Bureau.
- Apr . 2008 Awarded as ALL METAL SERVICES of U.K. supplier.
- Jun . 2008 Awarded as Agusta Westland of Italy supplier.
- Oct . 2008 Acquired NADCAP certification for NonDestructive Testing (NDT).
- Nov . 2008 Acquired NADCAP certification for Materials Testing.
- Dec . 2008 Acquired NADCAP certification for Heat Treating.
- May . 2009 Honored to get the 19th National Quality Award of Taiwan .
- Sep . 2009 Awarded as Toshiba supplier of Nuclear application.
- Jun . 2010 Awarded as a SAFRAN / Techspace Aero qualified Supplier.
- Sep . 2010 Awarded as a SAFRAN/Messier-Dowty qualified Supplier.
- Dec . 2010 Awarded as a GKN Aerospace qualified Supplier.
- Feb . 2011 Honor to get approval of S400/S1000 from GE Aviation.
- Jun . 2011 Honored to get certificate of ISO14001,OHSAS18001,and TOSHMS from AFNOR.
- Sep . 2011 Awarded as an EMBRAER qualified Supplier.
- Oct . 2011 Awarded as a Conuar SA qualified Supplier of Nuclear application.
- Nov . 2011 Awarded as a MHI-MRJ qualified Supplier.
- Feb . 2013 Honored to get the 1st.Taiwan Mittelstand Award.
- Apr . 2013 Awarded as Oliver Valves supplier.
- Jun . 2013 Gloria Group Global Headquarter Opening
- Jul . 2013 Awarded as Smith & Nephew supplier.
- Aug . 2013 Honored to get certificate of ISO 14064-1:2006 from AFNOR.
- Nov . 2013 Honored to get certificate of PED&AD2000 from TUV.
- Dec . 2013 Honored to get certificate of ISO-50001 from BSI.
- May . 2014 Honored to get certificate of AEO.
- Jun . 2014 Honored to get certificate of Lab. from Pratt&Whitney.
- Mar . 2015 Developed "e-cloud business platform".
- Jul . 2016 Awarded as qualified supplier of UTC Group Goodrich Loading System for grade 300M.
- Jul . 2016 Awarded as qualified supplier of SAFRAN / Snercma.
- Jan . 2017 Awarded as MHI-Commercial Aviation & Transportation Systems qualified supplier.
- Feb . 2017 Awarded as qualified supplier of Shimadzu aerospace and special process.
- Jun . 2017 Awarded as qualified supplier of LIEBHERR.
- Jan . 2018 Awarded as qualified supplier of Dowty Propellers.
- Jan . 2019 Awarded as qualified laboratory of GKN Aerospace Sweden.

Preface



Gloria Material Technology Corp. (GMTC), a specialty alloys steel manufacturer in Taiwan, founded in 1988 by EVERGREEN GROUP, renamed as Gloria Material Technology Corporation in 1999. We are located in Hsin-Ying, in the southern part of Taiwan. In Jan. 2018 Gloria Material Technology Corp. become a member of Taiwan Steel Group.

Our Vision is “To Be a High Performance Specialty Materials Supplier” .” Honesty, Profession, Disciplined” is our business philosophy.

GMTC has full range of production facilities from melting, forging, rolling, to heat treating. GMTC provides high quality materials such as Super-alloy, Titanium Alloy, High Speed Steel, Tool Steel, Stainless Steel, various ESR, VAR materials and Quenched-Tempered Steel...etc. , and has more than 500 steel grades. The main product shapes are focused on the Round bar, and Flat bar. In order to expand the value of the alloy materials and provide customized services for the customers, GMTC also develops the process of precision machining. Based on the concept of One Stop Shop, GMTC hopes to satisfy all customer's demands from materials supply to part machining, and control the quality, cost and time of manufacturing to significantly enhance the competitive advantage of the products.

Expecting to be an international manufacturer, GMTC develops advanced technology and capacity continuously. Recently, GMTC set up a large scale 4-Hammers Precision Forging Machine to effectively expand the production capacity, and built the only Vacuum Induction Melting (VIM) Furnace in Taiwan to provide high purity alloy materials such as 718, 625 Nickel-base Alloys and...ect.

Now GMTC becomes an important global super-alloy manufacturer. All product quality has been certified for ISO 9001, ISO 14001, AS9100, Non-Destructive Testing (NDT), Materials Testing, Heat Treating.

GMTC is the qualified supplier for energy industry, awarded by GE POWER, Siemens, Toshiba, Hitachi, Mitsubishi. We keep to getting ahead then relying on sophisticated ambition to successfully enter the aerospace industry, and been certified with Boeing, GE Aviation, Bombardier, Safran Group. GMTC continues to enhance the quality level continuously to actively enter high level industries including Aerospace, Medical, Energy, Oil & Gas, and Water, and expects to create higher values of the industries with all customers.

GMTC Distribution Channels

Sales to 50 Countries worldwide



Gloria Group

Gloria Material Technology Corp.

Liuying Head Office

No.10, Gong 2nd Rd., Liuying Dist., Tainan City, Taiwan 736
(Liuying Technology Industrial Park)
TEL:+886-6-6520031
FAX:+886-6-6230877

Hsin-Ying Plant

No.35, Hsin Chung Rd., Hsin Ying Dist., Tainan City, Taiwan 730
TEL: +886-6-6520031
FAX: +886-6-6520038

S-Tech Corp.

No. 15, Gong 1st Rd., Environmental Science and Technology Park, Liuying Dist., Tainan City, Taiwan 736
TEL:+886-6-6235143
FAX:+886-6-6230011

Homkom Precision Industry Corp.

No.28, Section 2, Huanyuan East Rd, Liuying Dist., Tainan City, Taiwan 736
TEL:+886-6-6230088
FAX:+886-6-6230306

Alloy Tool Steel, Inc

13525 East Freeway Drive, Santa Fe Springs, CA 90670-5686, USA
TEL: (800)288-9800 . (562) 921-8605
FAX: (562) 802-1728



Taiwan Distribution

Golden Win Steel Industrial Corp.

Taipei Branch office

No.48, 160 Lane, Da Hoo Rd.,
Da-Kang Village, Kuei-Sun,
Tao Yuan County, Taiwan 333
TEL: +886-3-3970522
FAX: +886-3-3282458

Taichung Branch office

No.246, Chengfeng Ln.,
Taiming Rd., Wuri Dist.,
Taichung City, Taiwan 414
TEL: +886-4-23350787
FAX: +886-4-23359545

Tainan Branch office

No.189, Yongkehuan Rd.,
Yongkang Dist., Tainan City,
Taiwan 710
TEL: +886-6-2330600
FAX: +886-6-2330601

Golden Win Steel Industrial Corp. (Vietnam)

No.27, No. 8 Road, Viet Nam-
Singapore Industrial Park, Thuan An
Town, Binh Duong Province. VN
TEL: +84-274-3737407-9
FAX: +84-274-3737410

China Distribution

Guangzhou Goldway Special Metal Co., Ltd

No.6, Third Danshui Street of Guangzhou Economic &
Technological Development Area, PR of China. 510730
TEL: +86-20-82087888 / 22322033
FAX: +86-20-82214281 / 82227221

Zhejiang Jiaying Goldway Special Metal Co., Ltd.

No.128, Shuguang Rd., Tanghui,
Jiaying Economic Development Zone,
Zhejiang, PR of China. 314003
TEL: +86-573-82303000
FAX: +86-573-82303296 / 82301288

Tianjin Goldway Special Metal Co., Ltd

No.70, Tenth Avenue, Tianjin Economic-Technological
Development Area(TEDA), PR of China. 300457
TEL: +86-22-59815366
FAX: +86-22-59815367 / 59815363

Xian Goldway Special Metal Corp. LTD

Room 1601, KaiRui Block A, Export Processing Zone,
No.12 Road, Fengcheng, Xian, Shanxi
TEL: +86-29-86155220 / FAX: +86-29-86155221



GMTC Steels for Aerospace

GMTC	UNS	Related Specs
630(17-4PH)	S17400	AMS 5622 AMS 5643
15-5PH	S15500	AMS 5659
440C	S44004	AMS 5618 AMS 5630 AMS-QQ-S-763
300M 4340M	K44220	BMS 7-26 AMS 6257 AMS 6419 AMS 6417 MIL-S-8844(class 3) GM 1012-3 BS S155 LAT1-9042 Class A
4340	G43400	AMS 6409 AMS 6414 AMS 6415 BMS 7-28 AMS-S-5000 MIL-S-8844(class 1)
4330M	K23080	AMS 6411 AMS 6427 BMS 7-122 BE 0886 CE 0906 BMS 7-27 GM 1010
9310	G93106	AMS 6260 AMS 6265
4130	G41300	AMS 6370
D6AC	K24728	AMS 6431 AMS-S-8949 FMS-1011 GM-1013
S156		BS S156
H11	T20811	AMS 6485 AMS 6487 AMS 6488
H13	T20813	AMS 6408
718(VIM+VAR)	N07718	ASTM A1014 ASTM B637 API 6A718 AMS 5662 AMS 5663
A286(EAF+ESR) A286(EAF+VAR)	S66286	AMS 5731 AMS 5732 AMS 5734 AMS 5737 AMS 5895 ASTM A453 BS HR51
13-8 Mo PH	S13800	AMS 5629

Steels for Oil & Gas, Water

GMTC	UNS	Related Specs
316	S31600	NACE MR0175/ISO15156 JIS G4303 ASTM A182 AMS 5648 AMS QQ-S-763 MIL-S-7720
410Q+DT 410(ESR)Q+DT	S41000	NACE MR0175/ISO15156 JIS G4303 ASTM A182 ASTM A276 ASTM A473 ASTM A479 ASTM A193
420Q+DT	AISI 420(M) ISO 11960 L-80 Type 13Cr	NACE MR0175/ISO15156 JIS G4303 ASTM A276
420QT	S42000	NACE MR0175/ISO15156 JIS G4303 ASTM A276
F6NMQ+DT	S42400	NACE MR0175/ISO15156 ASTM A182
630(HH1150) (17-4HH1150)	S17400	NACE MR0175/ISO15156 JIS G4303 AMS 5643 ASME SA564M ASTM A564
15-5PH (HH1150)	S15500	NACE MR0175/ISO15156 JIS G4303 ASTM A564
GHIC 2205	S31803(HIP) S32205	NACE MR0175/ISO15156 ASTM A790 ASTM A182 ASTM A276



GMTC Steels for Energy

● Materials Certificated by International Supply Chains

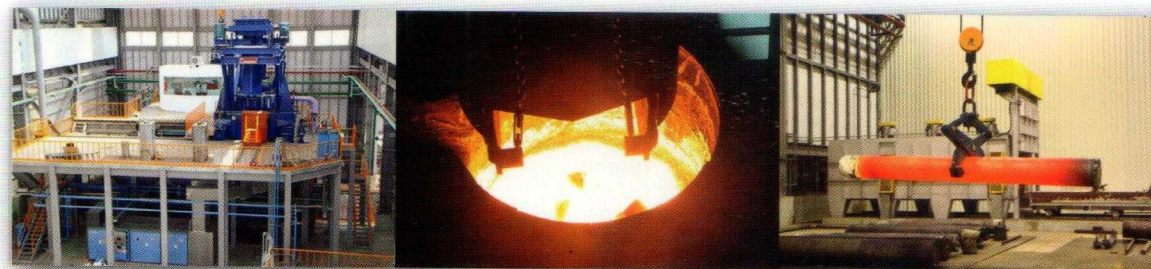
		Customers				
GMTC	AISI	GE ENERGY	SIEMENS	TOSHIBA	HITACHI	mitsubishi
GTD450	XM-25	B50A789A				
403Cb	XM-30	B50A790A B50A790C				
403Cbplus		B50A365B B50A365B1	10705Z2	K9A62C K9A62A	KT5300 KT5300AS5 KT5300BS5	
410/403	410	B50A990A B50A947A1 B50A947A4 B50A885A	10705BC 10705AT	B7B20E K9A61E K9A72E K11C79E	KT5300BS7 KT5302BS7	10705BA 10705AG 10705BA-ST
422	616	B50A951A1 B50A951A2	10705BR	K9A56C K11C81E K9A56E	KT5301HS20	10705BU
630	630		10705GV 10705GE			10705BX 10705BY 10705BZ
B16	B16			K5P51B		
M152	XM-32	B50A948A		K11C78E		
304Plus	304		10705DT			
X20Cr13	420	ITN02123/A	X20Cr13			
K9A59B				K9A59B		
K9A62A				K9A62A		
K11C82B				K11C82B		
X22CrMoV121			X22CrMoV121			



VIM (Vacuum Induction Melting) Series

● Characteristics

- /// Impurities and residues are very low.
- /// Content of nitrogen, hydrogen and oxygen is very low.
- /// Free of oxides and non-metallic inclusions



GMTC	UNS	Related Specs
718	N07718	B50A809 AMS 5662M AMS 5663M ASTM B637-06 API STD 6A718
625	N06625	BS 3076 AMS 5666 ASTM B446 ASTM B564 DIN EN10095
13-8 Mo PH	S13800	AMS 5629

GMTC	UNS	Related Specs
X-750	N07750	AMS 5667 AMS 5668 AMS 5670
901	N09901	AMS 5660 AMS 5661
80A	N07080	ASTM B637
C263	N07263	AMS 5886
C276	N010276	ASTM B574 ASTM B564
925	N09925	ASTM B805

● Product Property (Characteristics)

- /// A precipitation hardening nickel-base superalloy.
- /// Double vacuum melting (VIM+VAR) or triple melting (VIM+ESR+VAR) with extremely low content of gas and inclusion.
- /// High yield strength, tensile strength and excellent creep-rupture
- /// Excellent corrosion resistance.
- /// Excellent weldability.

● Application

- /// Superalloys for aerospace;
- /// Power generation (Steam turbine, Gas turbine)
- /// Oil & Gas (Production equipment)
- /// General (Heat treatment, Automobile)

GMTC VAR (Vacuum Arc Remelting) Series

GMTC	UNS	Size (mm) : $10 \leq \Phi \leq 454$ Related Specs
630(17-4PH)	S17400	AMS 5622, AMS 5643
15-5PH	S15500	AMS 5659
440C	S44004	AMS 5618, AMS 5630 AMS-QQ-S-763
300M 4340M	K44220	AMS 6257, AMS 6419, AMS 6417 BMS 7-26, BS S155 DMS 1935 GM 1012-3 MIL-S-8844(class 3) LAT1-9042 Class A
4340	G43400	AMS 6409, AMS 6414, AMS 6415 AMS-S-5000 BMS 7-28 MIL-S-8844(class 1)
4330M	K23080	AMS 6411, AMS 6427 BE 0886, BMS 7-27, BMS 7-122 CE 0906 GM 1010
9310	G93106	AMS 6260, AMS 6265
4130	G41300	AMS 6370
D6AC	K24728	AMS 6431, AMS-S-8949 FMS-1011, GM-1013
S156		BS S156
H11	T20811	AMS 6485, AMS 6487, AMS 6488
H13	T20813	AMS 6408

Other grades are available on request.

● Characteristics of Products

- /// The excellent properties of polish and grain.
- /// The homogeneous properties of hardness, microstructure and grain.
- /// Very high cleanliness and purity.
- /// The excellent property of Corner.

● Application

- /// Superalloys for aerospace.
- /// Melting of reactive metals (titanium, zirconium and their alloys) for aerospace, chemical industry, off-shore technique and reactor technique.
- /// High strength steels for rocket booster rings and high pressure tubes;
- /// Ball-bearing steels;
- /// High-performance mold steel.
- /// Superior cleanliness stainless steels use in medical industry
- /// Tool steels (cold and hot work steels) for milling cutters, drill bits, etc.



ESR (Electroslag Remelting) Series

● Characteristics

- ✓ High degree of cleanliness with respect to oxides and sulfides.
- ✓ High degree of uniformity.
- ✓ Low degree of micro-segregation.
- ✓ No macro-segregation.
- ✓ Grain size refining.
- ✓ Fine carbide distribution, especially for High Speed Steel.
- ✓ Structural stability.
- ✓ Fine ingot surface.

● Mechanical Properties

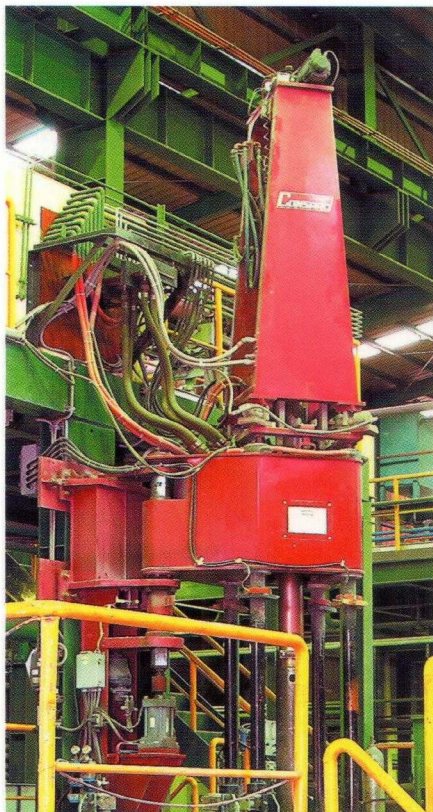
- ✓ Improve metal ductility and toughness.
- ✓ Strengthen transverse strength.
- ✓ Good polishability.

● Workability

- ✓ Enhance high temperature property.
- ✓ Good welding property.
- ✓ Good corrosion resistance.
- ✓ Good hot workability.
- ✓ Low distortion during hardening.
- ✓ High ductility coupled with low anisotropy for low degree of deformation.

Other grades are available on request.

Size(mm): $15 \leq \Phi \leq 600$



The
Professional
Quality



GMTC Round Bar Series

Stainless Steel Series

● Precipitation Hardening Series Size (mm) : $5 \leq \Phi \leq 600$

GMTC	AISI	DIN	Related Specs
630	630	1.4542 1.4548	AMS 5643 AMS 5622 ASTM A564 NACE MR 0175/ISO 15156
15-5PH	XM-12	1.4545	AMS 5659 ASTM A564 NACE MR 0175/ISO 15156
GTD450	XM-25		ASTM A564 NACE MR 0175/ISO 15156
13-8 Mo	XM-13	1.4534	AMS 5629 ASTM A564

1 \ Above steel grades are available in ESR, VAR, Precipitation Hardening and Solution Annealing

2 \ Also supply flat bars, square bars & mold blocks.

● 400 Series Size (mm) : $5 \leq \Phi \leq 600$

GMTC	AISI	DIN	Related Specs
403	403	1.4006	ASTM A182, ASTM A276, ASTM A473, ASTM A479 AMS-QQS-763, JIS G4303, NACE MR 0175/ISO 15156
410	410	1.4006	AMS 5612, AMS 5613, AMS-QQS-763 ASTM A182, ASTM A193, ASTM A276, ASTM A314 ASTM A473, ASTM A479 JIS G4303, NORSOK-M-CR-701 NACE MR 0175/ISO 15156, EN 10088-3
416	416	1.4005	AMS 5610 TYPE II, EN 10088-3 ASTM A314, ASTM A473, ASTM A582, JIS G4303
420	420	1.4021 1.4028 1.2083	AMS 5621, AMS-QQS-763, ASTM A276, EN10088-3 JIS G4303, NACE MR 0175/ISO 15156
F6NM	F6NM		ASTM A182 NACE MR 0175/ISO 15156
430	430	1.4016	ASTM A276, ASTM A314, ASTM A473, ASTM A479 AMS 5627, AMS-QQS-763
430F	430F	1.4014	ASTM A314, ASTM A581, ASTM A582, ASTM A473 JIS G4303
431	431	1.4057	ASTM A276, ASTM A473, ASTM A479 AMS 5628, JIS G4303
1.2316		1.2316	ISO 4957

1 \ Above steel grades are available in ESR and heat treated by quenching-tempering

2 \ Above steel grades in flat bars, square bars & mold blocks

Size (mm) : $5 \leq \Phi \leq 410$

GMTC	AISI	DIN	Related Specs
440B	440B	1.4112	ASTM A276, ASTM A314, ASTM A473, AMS-QQS-763 EN 10088-3, JIS G4303, SEW 400
440C	440C	1.4125	ASTM A276, ASTM A314, ASTM A473, ASTM A756 AMS 5630, AMS 5618, AMS 5880, AMS-QQ-763 EN 10088-3, JIS G4303, SEW 400

Above steel grades are available in ESR & VAR

● 300 Series

Size (mm) : $5 \leq \Phi \leq 500$

GMTC	AISI	DIN	Related Specs
EVERCUT 303	303	1.4305	AMS 5640 Type 1, ASTM A314 ASTM A320, ASTM A473 ASTM A582, JIS G4303
EVERCUT 304 EVERCUT 304L	304 304L	1.4301 1.4306	AMS 5639, AMS 5647 AMS-QQS-763, ASTM A182 ASTM A193, ASTM A194 ASTM A276, ASTM A314 ASTM A320, ASTM A473 ASTM A479, JIS G4303 NACE MR 0175 / ISO 15156
EVERCUT 304H	304H	1.4301	AMS 5639, AMS-QQS-763 ASTM A182, ASTM A193 ASTM A276, ASTM A314 ASTM A320, ASTM A479 JIS G4303
EVERCUT 316 EVERCUT 316L	316 316L	1.4401 1.4404	ASTM A320, ASTM A276 ASTM A182, ASTM A473 ASTM A193, ASTM A479 ASTM A194, ASTM A314 AMS 5648, AMS 5653 JIS G4303, AMS-QQS-763 NACE MR 0175 / ISO 15156
317L	317L	1.4438	ASTM A182, ASTM A276 ASTM A479, AMS-QQS-763 NACE MR 0175 / ISO 15156
310	310	1.4842	ASTM A276, ASTM A479 AMS 5651, AMS-QQS-763 NACE MR 0175 / ISO 15156
321/321H	321	1.4541	ASTM A193, ASTM A279 ASTM A314, ASTM A320 ASTM A 479, AMS 5645 AMS-QQS-763 NACE MR 0175 / ISO 15156
347	347	1.4550	ASTM A193, ASTM A276 ASTM A314, ASTM A320 ASTM A479, AMS 5646 AMS-QQS-763 NACE MR 0175/ISO 15156
XM-19	XM-19	1.3974	ASTM A182, ASTM A276 ASTM A314, ASTM A479 AMS 5764

- 1 \ Above steel grades are available in ESR
2 \ Also supply flat bars, square bars & mold blocks.

● Duplex (Ferritic - Austenitic Series) Size (mm) : $5 \leq \Phi \leq 315$

GMTC	AISI	UNS	DIN	Related Specs
1.4462	F51	S31803 S32205	1.4462	ASTM A182 ASTM A276 EN 10088-3 NACE MR 0175/ISO 15156 NORSOK M-630

Above steel grades are available in ESR

● Fe based superalloy

Size (mm) : $11 \leq \Phi \leq 200$

GMTC	UNS	Related Specs
A286	S66286	AMS 5731, AMS 5732, AMS 5734 AMS 5737, ASTM A453, ASTM B637

Above steel grades are available in VAR & ESR

the
Professional
Quality



Round Bar Series

Alloy Tool Steel Series

- Cold Work Tool Steel Size (mm) : $5 \leq \Phi \leq 410$

GMTC	AISI	DIN
D2	D2	1.2379
1.2080	D3	1.2080
1.2436	D6	1.2436

Above steel grades are available in ESR

Size (mm) : $5 \leq \Phi \leq 535$

GMTC	AISI	DIN
A2	A2	1.2363
A6	A6	1.2824
A9	A9	

Above steel grades are available in ESR

Size (mm) : $5 \leq \Phi \leq 600$

GMTC	AISI	DIN
S1	S1	1.2542
S5	S5	
S7	S7	1.2355
O1	O1	1.2510
O2	O2	1.2842
O6	O6	
1.2767		1.2767
1.2550		1.2550

1 \ Above steel grades are available in ESR

2 \ Also supply flat bars, square bars & mold blocks.

- Hot Work Tool Steel Size (mm) : $5 \leq \Phi \leq 650$

GMTC	AISI	DIN
H10	H10	
H11	H11	1.2343
H12	H12	1.2605
H13	H13	1.2344
1.2365		1.2365
L6	L6	1.2714

1 \ Above steel grades are available in ESR & VAR

2 \ Also supply flat bars, square bars & mold blocks.

● Plastic Mould Steel

Size (mm) : $5 \leq \Phi \leq 600$

GMTC	AISI	DIN
P21M	~P21	
420Mod.	420	1.2083
P20	P20	1.2311
1.2738		1.2738

Above steel grades are available in ESR

● Low Alloy Steel

Size (mm) : $5 \leq \Phi \leq 650$

GMTC	AISI	DIN	others
4130	4130	1.7218	
4140	4140	1.7225	SCM440
4145	4145		
4340	4340	1.6565	
8620	8620		
9310	9310		
135M		1.8509	SACM645
1.8070		1.8070	
50CrMo4	4150	1.7228	
17CrNiMo6		1.6587	
EN25		1.6743	
EN26		1.6745	
EN39B			
SCM439			SCM439

1. Above steel grades are available in ESR, VAR and heat treated by quenching-tempering.

2. Also supply flat bars, square bars & mold blocks.

● Bearing Steel

Size (mm) : $5 \leq \Phi \leq 600$

GMTC	AISI	DIN
SUJ2	52100	

Above steel grades are available in ESR & VAR



GMTC Round Bar Series

Quenched & Tempered Steel Series

● Alloy Steel

Size (mm) : $22 \leq \Phi \leq 600$

GMTC	AISI	DIN	others
L6	L6	1.2714	
P21M	~P21		
1.2316		1.2316	ISO4957
P20	P20	1.2311	
1.2738		1.2738	
4130	4130	1.7218	
4140	4140	1.7225	SCM440
4145	4145		
4340	4340	1.6565	
135M		1.8509	SACM645
1.8070		1.8070	
50CrMo4	4150	1.7228	
17CrNiMo6		1.6587	
SNCM439			SNCM439

Other grades are available on request.



● Stainless Steel

Size (mm) : $5 \leq \Phi \leq 600$

GMTC	AISI	DIN	Related Specs
403	403	1.4006	ASTM A182, ASTM A276, ASTM A473, ASTM A479 AMS-QQS-763, JIS G4303, NACE MR 0175/ISO 15156
410	410	1.4006	AMS 5612, AMS 5613, AMS-QQS-763 ASTM A182, ASTM A193, ASTM A276, ASTM A314 ASTM A473, ASTM A479 JIS G4303, NORSOK M-CR-701, EN10088-3 NACE MR 0175/ISO 15156
416	416	1.4005	AMS 5610 TYPE II ASTM A314, ASTM A473, ASTM A582, JIS G4303, EN10088-3
420	420	1.4028 1.4021 1.2083	AMS 5621, AMS-QQS-763, ASTM A276, EN10088-3 JIS G4303, NACE MR 0175/ISO 15156
F6NM	F6NM		ASTM A182 NACE MR 0175/ISO 15156
431	431	1.4057	ASTM A276, ASTM A473, ASTM A479 AMS 5628, JIS G4303
420Mod.	420	1.2083	





GMTC Round Bar Series

High Speed Steel Series

● High Speed Steel

Size (mm) : $5 \leq \Phi \leq 233$

GMTC	AISI	DIN
M1	M1	1.3327
M2	M2	1.3343
M7	M7	1.3348
M35	M35	1.3243
M42	M42	1.3247
M50	M50	

Above steel grades are available in ESR & VAR

Application : Cutting Tools, Shaving cutter, Punches, Mould & Dies...

Titanium Alloy Series

● Ti-Bar

Size (mm) : $3 \leq \Phi \leq 350$

Grade :

Commercial : ASTM B348 / B381, Gr.1, Gr.2, Gr.3, Gr.5, Gr.12,β-Ti(1023), AMS 4921

Medical implants : ASTM F136, ISO5832.3, ASTM B348, Gr.23(ELI), ASTM F67 & ISO5832.2(pure titanium), AMS 4930, ASTM F1472.

Aerospace : AMS 4928Q, AMS MIL-T9047, AMS 6931, AMS 6930, AMS 4965, AMS 4967.





Special Steel Profile

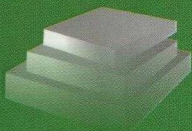
● Type and Size

Round		Φ 12 - 35 mm
Flat		Width : 10~58mm Thickness : 3~30mm
Square		SQ 12 - 35 mm
Hexagonal		H12 - 41 mm
Special Profiles		As customer drawing

● Steel Grades

Shape	Grade	Size(mm)	Length	Spec.
Round	630, 416, 304,316, 316UHP,718	12~55	max:7.5m	ASTM A276 ASTM A484 ASTM B637
Flat	303, 304, 316, 316UHP	T:10~58 W:3~30	max:7.5m	ASTM A276 ASTM A484 ASTM B582
Square	303, 304,316, 316UHP	12~35	max:6.2m	ASTM A276 ASTM A484 ASTM B582
Hexagon	303, 304,316, 316UHP,630, 416	12~41		ASTM A564(630) ASTM A276 ASTM A484 ASTM B582

Other grades are available on request



GMTC Die - Block

Material Supply :

GMTC	JIS	DAIDO	HITACH	ASSAB	BUDERUS	KOBE	BOHLER	AISI	DIN
H11	SKD6						W300	H11	1.2343
H12	SKD62	DH62	DBC					H12	1.2606
H13	SKD61	DHA1	DAC	8407-2M			W302	H13	1.2344
P20		PDS-5	HPM2		2311 ISO-BN	KTSM 3M	M201	P20	1.2311
1.2738				718	2738 ISO-BM		M238	P20+Ni	1.2738
420Mod.	SUS420J2	PD555	HPM38	STAVAX	2083 ISO-B	KTSM 60	M310	420	1.2083
1.2367		DH31	DAC10S		2367 ISO-B		W303		1.2367
1.2316		PD742		RAMAX	2316 ISO-B MOD	KTSM 420	M300		1.2316
P21M		NAK-80	HPM-50		MR-11 ISO-B	KTS M40E	M461		
1.2344S	SKD61+S	DH2F	FDAC			KTS41		H13+S	1.2344+S
1.2714	SKT4	GFA	DM	SOMEDIE	2714	KTV	W500	L6	1.2714
4140	SCM 440	PDS-3			7225MOD	KTSM31	V320	4140	1.7225
S55C	S55C	PDS-1			SP1	KTSM21		1055	

Other grades are available on request.



The Professional Quality



GMTC Parts Supply (Total Solution Service)

In order to combine the up-stream and down-stream industries and establish integrated technology, Gloria Material Technology Corp. not only keeps developing and manufacturing high quality specialty steel but also act as One Stop Shop by supplying finished components per customers' drawings.

Application	Product
Aerospace	Blanks of Actuator Tensile Test Bond Pieces
Power Generation	Seals for Nozzle Compressor Disks/ Rings Forgings Turbine Wheels Spacers for Gas Turbine Transmission Shafts
Sendzimir Mill/ Machine	Sendzimir Rolls Sleeves/ Spools Slitting Knives & Spacers Dummy Bar Heads Rolls for Slab Continuous Caster Copper Rod Roller Guide Roll
Valve & Others	Shafts Retainer Rings Cast/ Forged Steel Balls Fittings and Flanges Stems, Studs, Bolts, Nuts, Heavy Nuts SHCPS, pins Eyebolts Vacuum Parts

Other grades are available on request.

Guide Roll
MAT.: SKD11, SKD61



Spacer
MAT.: 410/403QT



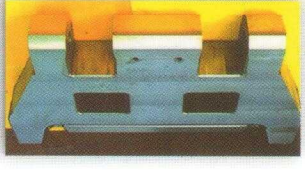
Blanks of Actuator
MAT.: 15-5PH VAR



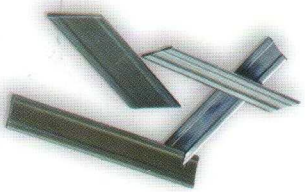
Stem
MAT.: 316, 316L, 410QT



Dummy Bar Head
MAT.: 21CrMoV511



Seals for Nozzle
MAT.: 430SS



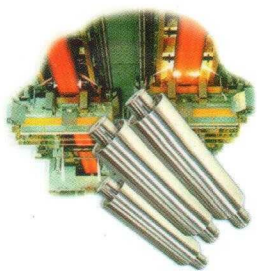
Shaft
MAT.: 316, 316L, 630H1150, 2005



Transmission Shaft (Rough Machined)
MAT.: SCM 440
SIZE: MAX.OD1050mm



Rolls for Slab Continuous Caster
MAT.: 21CrMoV511
SIZE: OD100-450mm



Sendzimir Rolls
MAT.: A23, A8M, D2, M1, M2, H12
SIZE: OD24mm-250mm



Boss
MAT.: Nickel-based Alloy 718
SIZE: Ø20*H10

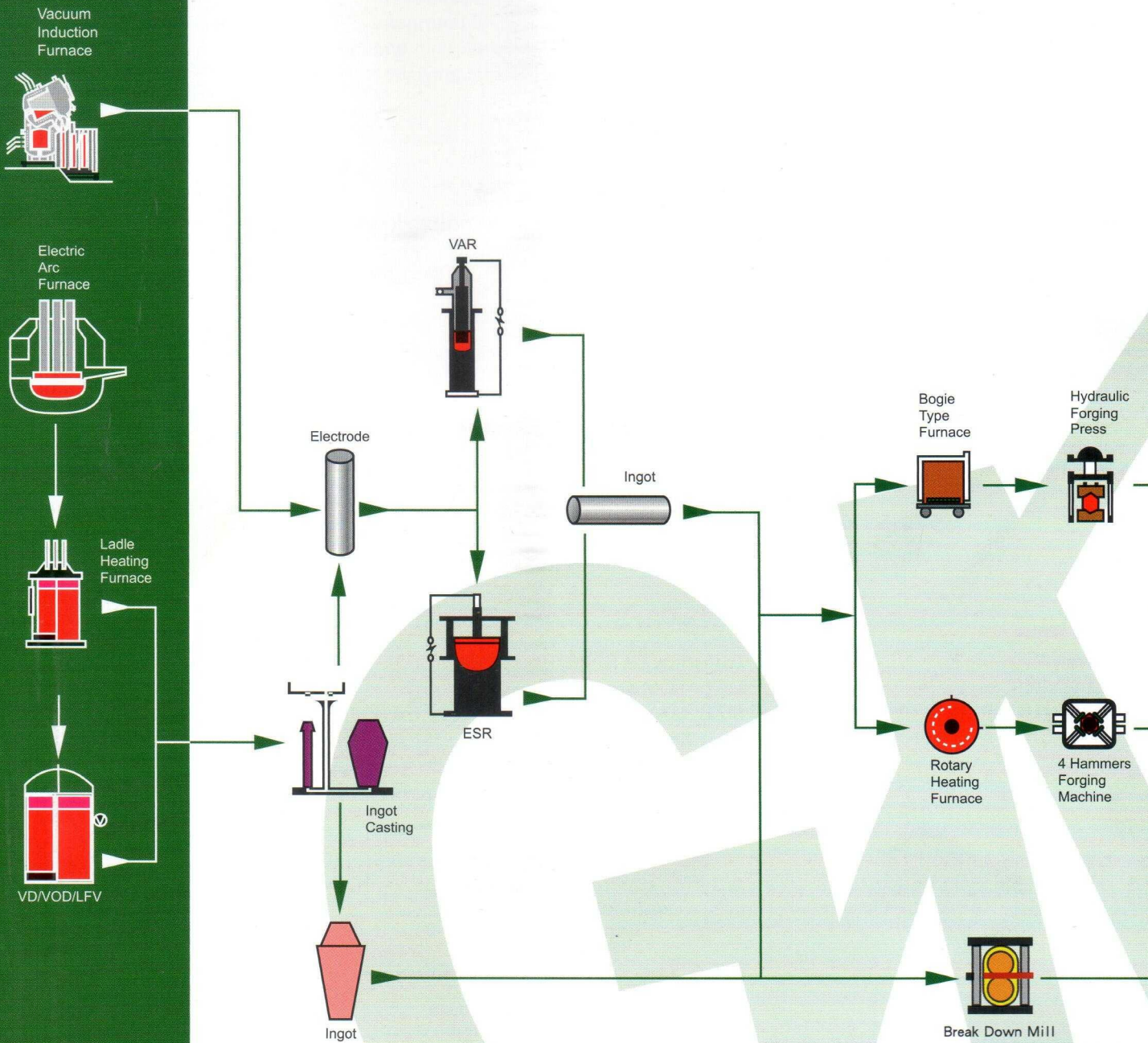


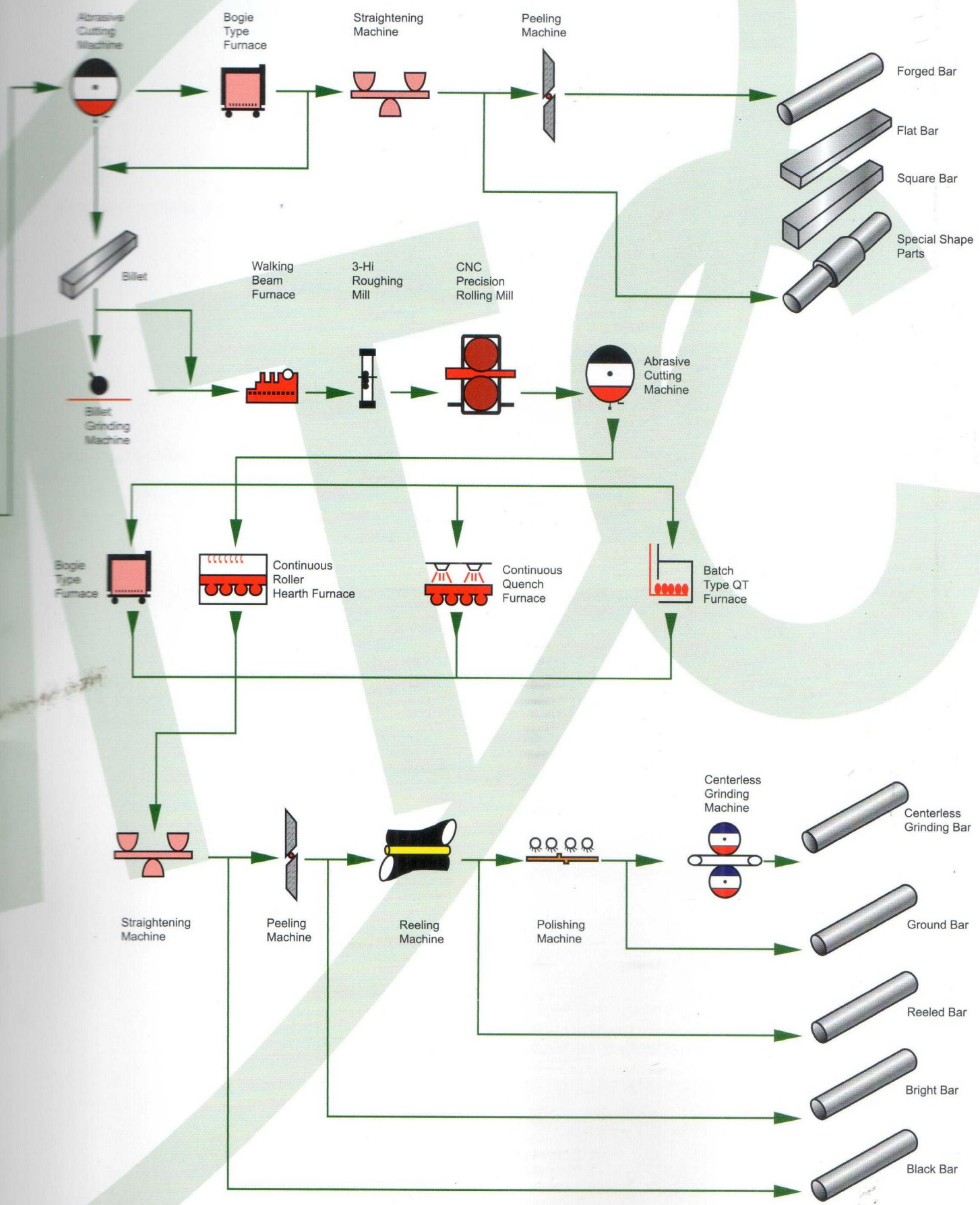
Block
MAT.: SCM420H
TYPE: 15-65

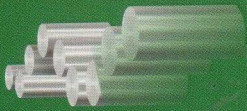




GMTC Production Flow







GMTC Main Equipments

● Melting Facilities

- /// 35 ton with ultra-high power electric arc furnace.
- /// Ladle heating furnace featured temperature & chemical composition control, inclusion removing and shape control.
- /// VD/VOD for gas content and low carbon content control.
- /// ESR(Electroslag Remelting) for fine structure and super cleanness inclusion control.
- /// Vacuum-Arc Remelting (VAR)
- /// Ladle heating furnace and vacuum oxygen degassing (LFV)
- /// Vacuum Induction Melting (VIM)

● Forging Facilities

- /// A 4-Hammers Rotary Forging method is adopted, it is a Quasi-isothermal deformation process, and the reduction up to 10:1 can be achieved without any reheating.
- /// Hydraulic Forging Press

● Rolling Facilities

- /// 3 Hi Roughing Mill and GFM hydraulic driving with CNC precision rolling mill are operated with the quick roll-exchange and the flexible production.

● Heat Treatment Facilities

- /// Bogie Type Furnace.
- /// Walking Beam Heating Furnace.
- /// Continuous Roller Hearth Annealing Furnace.
- /// Batch Type Furnace.
- /// Quenching-Tempering Facility.

● Finishing Facilities

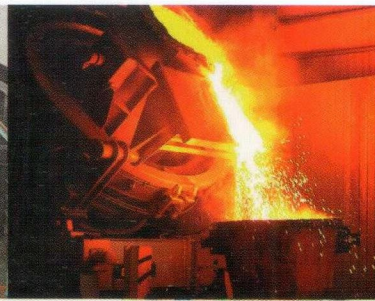
Provided with the diversified finishing equipments to ensure the quality of surface and straightness.

- /// Straightening Machine.
- /// Multi-Roll Straightening Machine.
- /// 2-Roll Straightening Machine.
- /// Reeling Machine.
- /// Peeling Machine.
- /// Centerless Grinding Machine

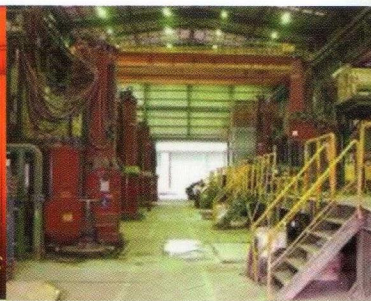
Melting Facilities ▶



▲ VIM



▲ LFV



▲ ESR & VAR

Forging Facilities ▶



▲ Hydraulic Forging Press



▲ 4-Hammers Precision Forging Machine



▲ Rotary Heating Furnace

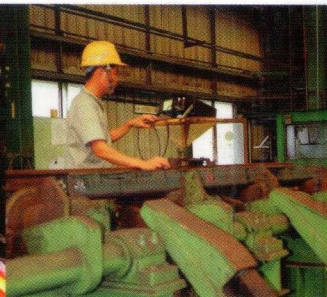
Rolling Facilities ▶



▲ 3 Hi Roughing Mill



▲ CNC Precision Rolling Mill

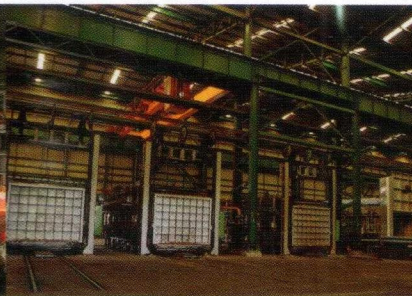


▲ Ultrasonic Examination

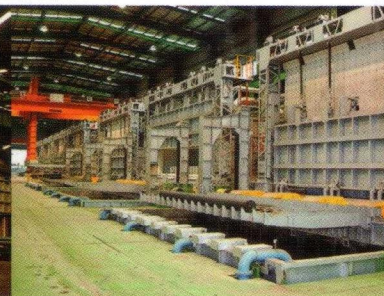
Heat Treatment Facilities ▶



▲ Bogie Type Furnace

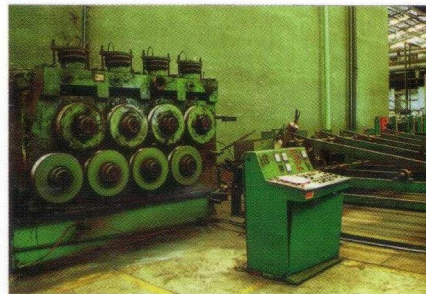


▲ Bogie Type Furnace



▲ Quenching-Tempering Facility

Straightening Facilities ▶

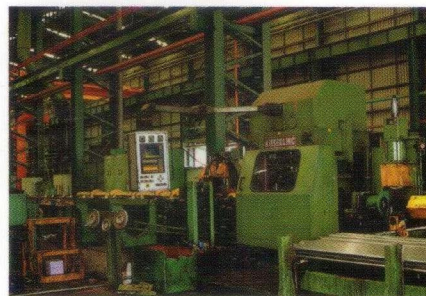


▲ Multi-Roll Straightening Machine



▲ Straightening Machine

Finishing Facilities ▶



▲ Reeling Machine



▲ Centerless Grinding Machine

● Ingot

- /// Chemical Analysis
- /// Gas Content Analysis

● Forging Bar & Billet

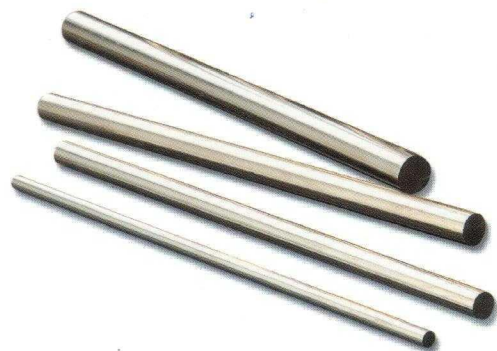
- /// Dimension Inspection, straightness
- /// Macro-etching
- /// Internal Defect Inspection (UT)
- /// Surface Defect Inspection (MT/VT)
- /// Hardness Inspection
- /// Metallographic Inspection
- /// Mechanical Test

● Rolling Bar

- /// Dimension Inspection
- /// Macro-etching
- /// Internal Defect Inspection (UT)
- /// Surface Defect Inspection (MT/VT/ET)
- /// Hardness inspection
- /// Metallographic Inspection
- /// Mechanical Test

● Finishing Products

- /// Dimension Inspection
- /// Straightness Inspection
- /// Roughness Inspection
- /// Internal Defect Inspection (UT)
- /// Surface Defect Inspection (ET)







GMTC Certificates

● Quality Management:

- /// AS 9100
- /// ISO 9001
- /// ISO 17025
- /// ISO 14001
- /// ISO 14064
- /// ISO 50001
- /// OHSAS 18001

● Others Qualified:

- /// STRYKER
- /// SENSATA
- /// Smith & Nephew

● Aerospace Qualified:

- /// BOEING (709694)
- /// MOOG
- /// BOMBARDIER
- /// SAFRAN GROUP
- /// GKN
- /// MRJ
- /// AGUSTA WESTLAND
- /// GE AVIATION

● Energy, Nuclear Qualified:

- /// GE Power & Water
- /// SIEMENS
- /// HITACHI (includes Nuclear)
- /// TOSHIBA (includes Nuclear)
- /// MITSUBISHI (includes Nuclear)
- /// ANSALDO
- /// DOOSAN
- /// MES

● Oil & Gas Qualified:

- /// WEATHERFORD
- /// CAMERON
- /// GE Oil & Gas

● Nadcap Qualified:

- /// Nondestructive Testing
- /// Heat Treating
- /// Materials Testing

The
Professional
Quality





6-Sigma & Lean Manufacturing

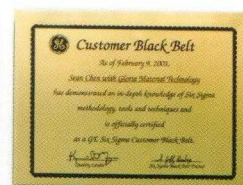


To reach customer's expectations, Gloria has put tremendous efforts on quality improvement and on-time delivery by 6-Sigma and Lean Manufacturing management.

We own a strong implementing group including numbers of black belts, green belts and coaches and have finished hundreds of project along with the course.

Furthermore, Gloria will continue to improve and provide the best service to customers.

There is no doubt, we will fully implement 6-Sigma and Lean Manufacturing in our management system to meet customer's demands.



Our Vision

High Performance Specialty Materials Supplier

Our Business Philosophy

- /// Honesty
- /// Profession
- /// Disciplined





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