



GLEN FLANGE *limited*
FOCUS ON MARINE INDUSTRY

Volume 2016

GUARANTEED QUALITY FROM THE RAW MATERIAL

We hold the necessary type of steel in stock

Depending on customer requirements we can submit the chemical composition and physical properties of the steel bars and ingot before cutting in order to ensure that our end products have above-average material structure and physical properties.

We obtain our raw materials from well-known steel factor which produce them to the Dia. needed for efficient use and provide quality certificates for the various steels.

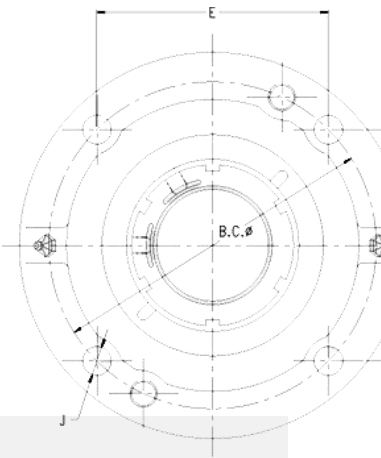
“As a result of ultra-short delivery times and continuous availability of the raw materials, we create an edge right from the start of the order process by means of speed, because with careful planning we can half-way to production.”





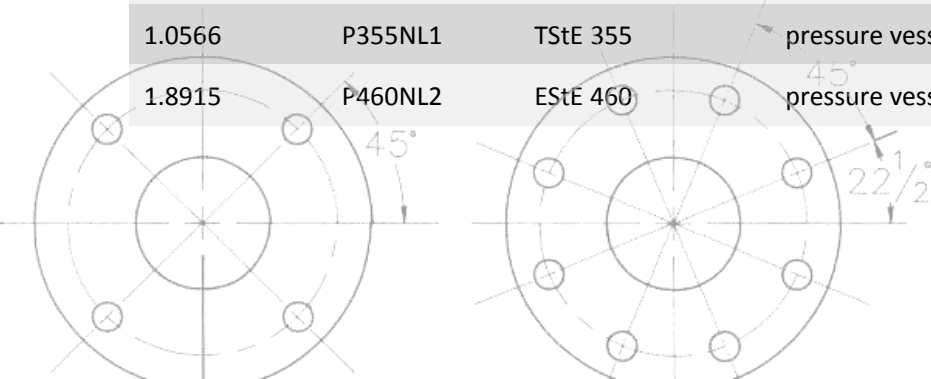
MATERIAL QUALITIES

MATERIAL NO.	UNS	ASTM/AISI	EN
1.4301/1.4307	S30400/S30403	304/304L	X5CrNi18-10/X2CrNi18-9
1.4401/1.4404	S31600/S31603	316/316L	X5CrNiMo17-12-2/X2CrNiMo17-12-2
1.4435	S31603	316L(Mo+)	X2CrNiMo18-14-3
1.4539	N08904	904L	X1NiCrMoCu25-20-5
1.4547	S31254	254 SMO	X1CrNiMoCuN20-18-7
1.4841	S31000/S31400	310/AISI 314/A 632	X15CrNiSi 25-21
1.4845	S31008	310S	X8CrNi25-21
1.4948	S30409	304H	X6CrNi18-10

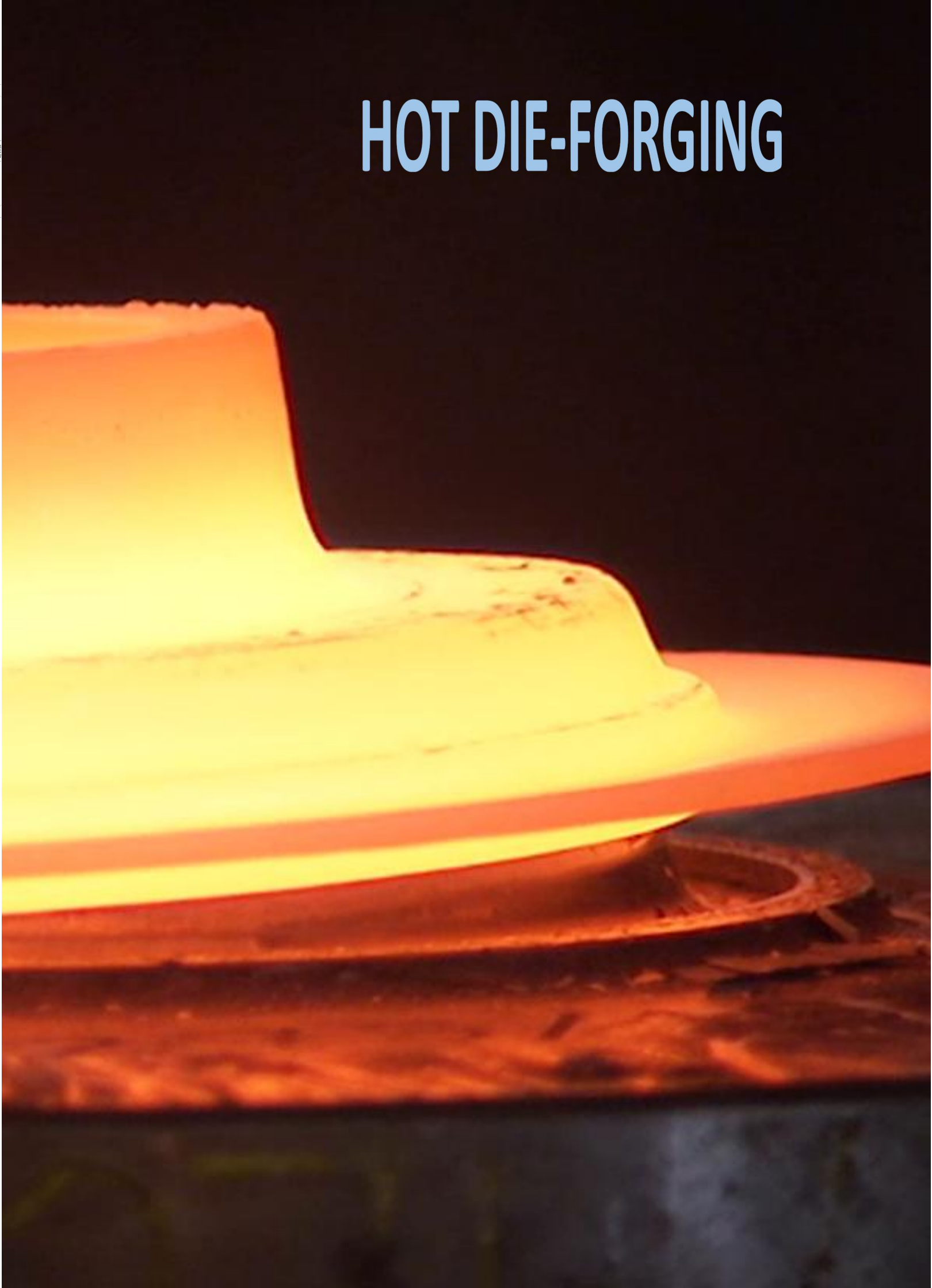


MATERIAL QUALITIES

MATERIAL NO.	MATERIAL	OLD DESIGNATION	TYPE	BASIC MATERIAL STANDARD
1.0037	S235JR+AR/N	RST-37-2	unalloyed structural steel	EN 10025
1.0570	S355J2+N	St-52-3	unalloyed structural steel	EN 10025
1.0569	S355J2C+N	-	unalloyed structural steel	EN 10025
1.0593	S355K2C+N	-	unalloyed structural steel	EN 10025
1.0553	S355J0+AR/N	St-52-3U	unalloyed structural steel	EN 10025
1.0425	P265GH	HII	pressure vessel steel	EN 10028-2
1.0481	P295GH	17Mn4	pressure vessel steel	EN 10028-2
1.5415	16Mo3	15Mo3	pressure vessel steel	EN 10028-2
1.0487	P275NH	WStE 285	pressure vessel steel	EN 10028-3
1.1104	P275NL2	EStE 285	pressure vessel steel	EN 10028-3
1.0566	P355NL1	TStE 355	pressure vessel steel	EN 10028-3
1.8915	P460NL2	EStE 460	pressure vessel steel	EN 10028-3



HOT DIE-FORGING



HIGH-QUALITY FORGING

Hot die-forging for flange

Forging ratio 3:1

Glen Flange is ideally equipped for the production of high-quality blanks. At two plants and on four forging lines we produce flange with an external diameter of:

Φ200 – 5000mm

All flange are calibrated and straightened after the forged process. The risks of overheating and excessive cooling are prevented by means of automatic control, monitoring and logging of the temperature.

“The continuously monitored heat treatment process is used for production. The flange blanks heat treatment cycle curve will keep for record a year for tracking.”



HEAT TREATMENT



MECHANICAL PROCESSING.

According to customer requirements and standard.

For finishing we have a wide range of CNC-controlled processing machines available, guaranteeing high quality standards for our customers. Even for complex components we have the right machine and the appropriate know-how.

As a result of the fact that the blanks after heat treatment with little or no tension, we maintain close tolerances even in automatic machining.

CNC-turning

Φ50 – 5000mm

CNC-trilling

Φ50 – 3800mm

CNC-milling

200×2000mm

MAN AND MACHINE.

Merged into one unit

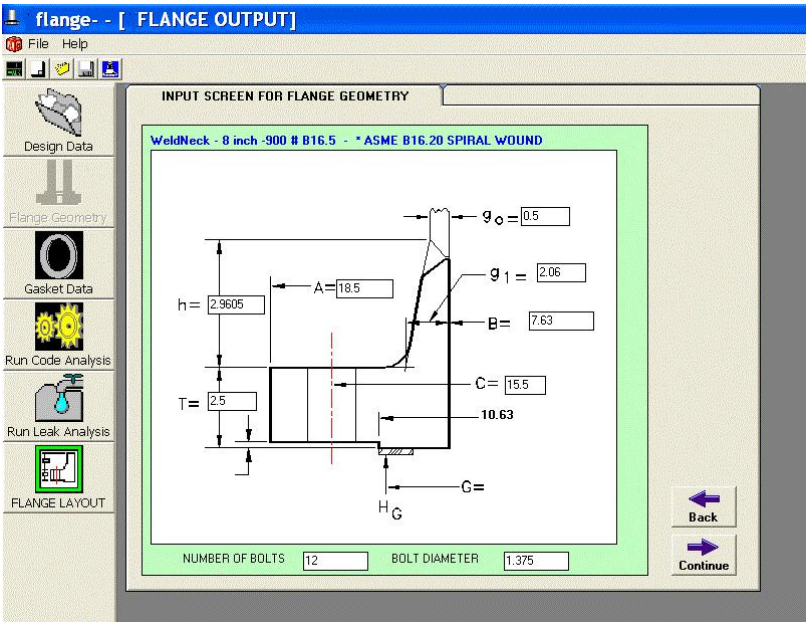
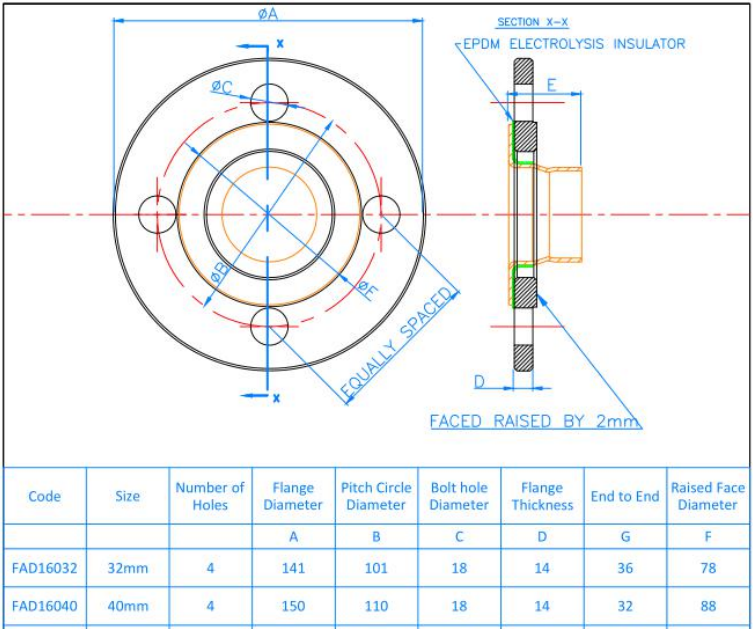
Behind every product there stands the person who made it. Over 85 employees contribute to the production of components to the customers' specifications every day. In the field of CNC-maching, we focus on continuous training and further qualification. In that way, we are always ideally equipped to meet the ever-increasing requirements of our customers.

“So that your production never comes to a stop, we can guarantee the rapid processing and delivery of small batches because of our ultra-flexible CNC processing machines.”

Many complex workpieces require a lot of time and effort for programming and subsequent machining. We are ideally equipped to meet these requirements with our twelve CNC carousel lathes, as well as our trained technicians.

Our CNC processing machines are real all-rounders: They combine precision and speed with lots of options for the carousel turning and the machining of everything from single items to mass-produced series.

So that your production never comes to a stop, we can guarantee the rapid processing and delivery of small batches because of our ultra-flexible CNC processing machines. We ourselves know just how annoying it is when production stops because of a lack of components. For that reason, our employees do their utmost every day to accept even urgent orders and to deliver them promptly as agreed.



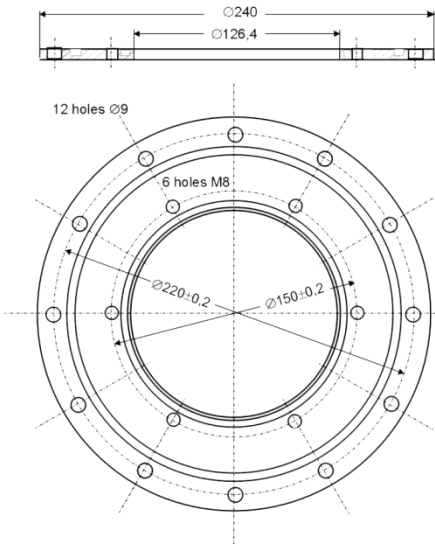


- >>Dome flanges
- >>Ring bearing mounts
- >>Compensator flanges
- >>Steel construction flanges
- >>Supporting rings
- >>Reinforcing rings
- >>Anchor rings
- >>Flat flanges and collars
- >>Welding neck flanges
- >>Blind flanges
- >>Stirrer flanges
- >>Equipment assembly flanges
- >>Shipbuilding flanges
- >>Bushes
- >>Locking rings

FLANGE STANDARDS.

Industry Standards

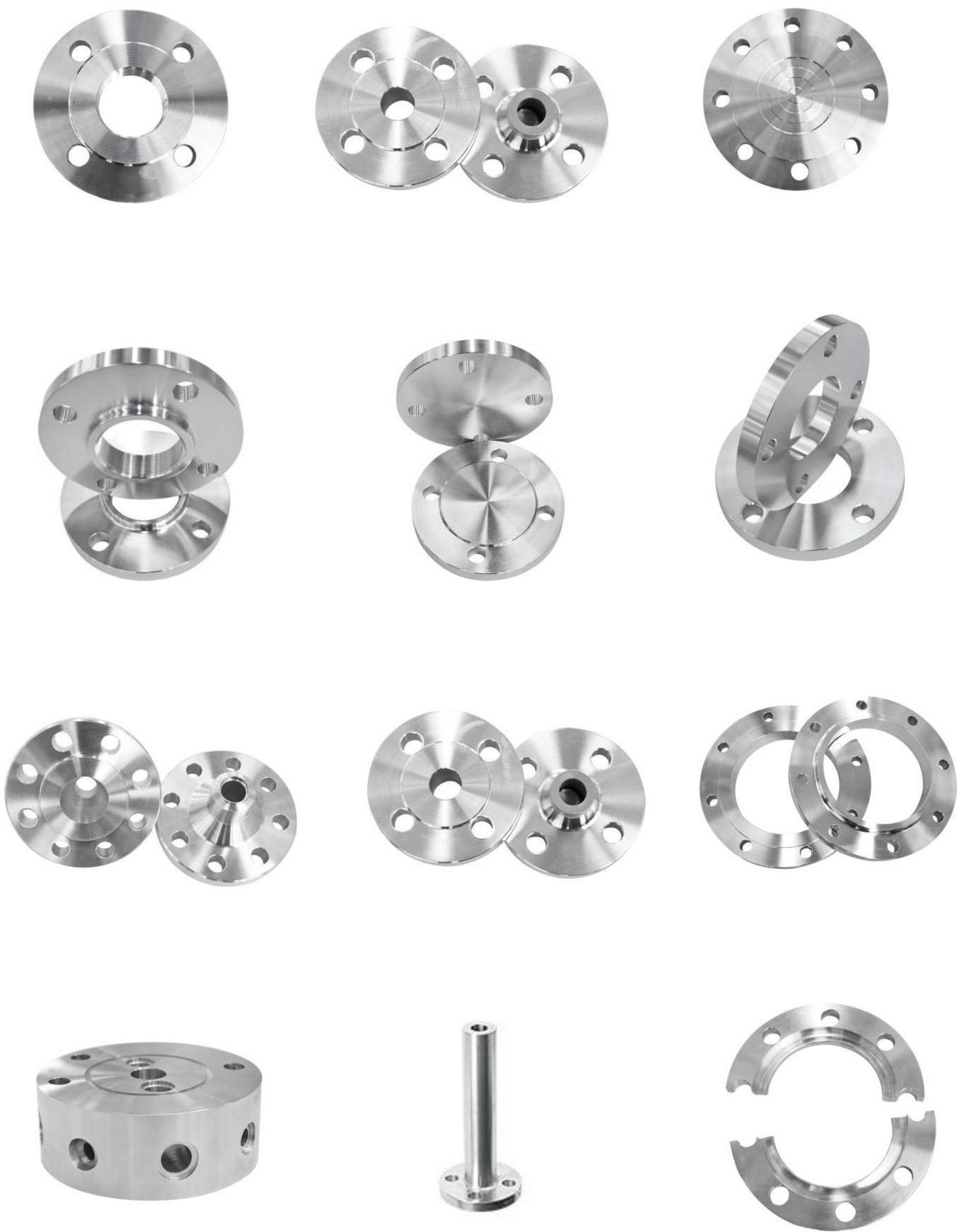
DIN2527 PN6 - PN100	Blind flanges
DIN2573; DIN2576	Flanges, flat, for brazing or welding
DIN2630, DIN2631, DIN632, DIN2633, DIN2634, DIN2635, DIN2636, DIN2637, DIN2638, DIN2628, DIN2629, DIN2627	Welding neck flanges
DIN2655, DIN2656	Loose flanges, flat collars
DIN 86044	Shipbuilding flanges
DIN 28030, DIN 28031, DIN 08032, DIN 28033, DIN 28034, DIN 28036, DIN 28038	Flange connectors for equipment for non-pressurised and pressurised containers.



European flange standards according to EN1092-1

EN1092-1 Type 01 PN2,5 - PN100	Flat flange for welding
EN1092-1 Type 02 PN2,5 - PN40	Loose flange for types 32-37
EN1092-1 Type 04 PN10 - PN40	Loose flange for type 34
EN1092-1 Type 05 PN2,5 - PN100	Blind flange
EN1092-1 Type 11 PN2,5 - PN400	Welding neck flange
EN1092-1 Type 12 PN6 - PN100	Hubbed ship-on flange for welding
EN1092-1 Type 21 PN2,5 - PN400	Integral flange
EN1092-1 Type 32 PN2,5 - PN40	Flat collar
EN1092-1 Type 34 PN10 - PN40	Welding neck collar
EN1092-1 Type 35 PN2,5 - PN40	Welding neck

STANDARD FLANGE



NON-STANDARD FLANGE



COMPETITIVE EDGE
THANKS TO QUALITY.

Surface quality

μRa 0,25 - μ Ra 50

μRz 1,6 - μ Rz 100

From procurement of materials through all the stages of production to the end product ready for dispatch, not a single flange leaves our company without passing a final inspection. But even looking with the utmost care.

With our ultrasound test we give our customers the ultimate certainty that no defects have in fact been overlooked. Surfaces meeting customer specifications are checked by our employees during and after the turning process. Thanks to the latest CNC lathe technology, we are capable of producing ultra-smooth surfaces. We also grind and polish surfaces to the customer’s requirements. The ultra-fine machining rounds off the total package without causing delivery times to stretch over weeks.

We also offer these other tests

- >>>Surface crack testing with liquid penetrant
- >>>X-ray testing
- >>>Magnetic flux leakage method
- >>>Workpiece measurement(external)



“The competitive edge provided by quality, coupled with flexible, fast production, allows us to be certain of passing this competitive edge on to our customers”



CHONGQING GLENFLANGE LIMITED
No.99 Longhua Road, Yubei District, Chongqing 401120 CHINA.



Inspection Certificate
Abnahmepruefzeugnis

Certified in accordance to Pressure Equipment Directive 97/23/EC,
Annex 1, Paragraph 4.3 by TÜV NORD Group
(Notified Body Identification NO.0045)

EN10204-3.1

Zertifiziert nach Druckgeraete-Richtlinie 97/23/EG,
Anhang 1, Abschnitt 4.3 durch TÜV NORD Gruppe
(Benannte Stelle Kenn-Nr.0045)
Certificate No.: GF1602290 Page: 1/1
Pruef-Nr. Seite

Customer/Besteller: Brodotrogir d.d. shipyard																
Order No./Bestell Nr.:			dated/vom		Works No/Werks Nr.			Material/Werkstoff		according to/entsprechend						
GF1603-26			2016/3/26		2016-Y006			P245GH		EN 10222-2						
Article/Gegenstand:			Hot Forged Flange/geschmiedeter Flansch		Specification/Anforderung:											
State of delivery/Lieferzustand:			HOT FORGED		Melting process/Erschmelzungsart: E											
Marking/Kennzeichnung:			GF Heat-No.EN 10222-2 TYPE SCH DN PN Material													
Stamp of Manufacturer/Herstellerzeichen:			Inspector's stamp/Pruefstempel:													
Content of the Delivery/Lieferumfang																
NO.	Pieces/stueckzahl	Article No.	Description/Bezeichnung	Heat No/Schmelze-Nr	Test No/ProbeNr											
1	20	000581018	EN 10222-2 PN10-16 DN150	B0987	GF16Y00601											
2	75	000621168	EN 10222-2 PN6 DN150/168.3	B0987	GF16Y00601											
3	90	000621273	EN 10222-2 PN6 DN250/273.0	B0987	GF16Y00601											
4	80	000622356	EN 10222-2 PN10 DN350/355	B0987	GF16Y00601											
5	24	000622406	EN 10222-2 PN10 DN400/406	B0987	GF16Y00601											
Chemical analysis/Chemische Analyse																
NO.	Heat No.	%C	%Si	%Mn	%P	%S	%Cr	%Mo	%Ni	%Ti	%Nb	%Co	%Cu	%Al	%Nb	%V
1-5	B0987	0.15	0.22	0.65	0.018	0.01	0.016		0.011				0.021			
Mechanical tests/Mechanische Pruefungen																
NO.	Test No/ProbeNr	Specimen size	Yield Strength N/mm ²	Tensile Strength N/mm ²	Elong %	Red of Area %	Charpy-impact Test, ISO-V Specimen						Hardness			
							Kerbschlagversuch, ISO-V-Probe(20°C)						Haerte			
1-5	GF16Y00601	12.5*50	235	500	22.5	68.5	J	121	108	132	Σ/N	HB				



APPROVALS AND INSPECTIONS.

The correct type approval for every application

For our production processes we submit ourselves to many internal and external quality audits every year. Please find enclosed a summary of our approvals.

- >>TÜV Nord - recognised QM system according To DIN EN ISO 9001:2008
- >>Manufacturer recognition by TÜV Nord According to AD2000-HP0/W0,W1,W2,W9; EN 3834-3 and EN 13445
- >>Approval as a material manufacturer according to Pressure Equipment Directive PED 97/23/EC
- >>Approval for eight different shipping class.

Inspections according to EN 10204 3.2 and AD 2000 are carried out, as well as special inspections by the following authorized inspection agencies:



"You can rely on technical safety in all areas. We guarantee this safety! Because our flanges, rings and collars comply with all the safety standards according to DIN, EN, TÜV, LR, DNV-GL, ABS, BV, RINA and other inspection agencies."



OUR SPEED - YOUR TRUMP CARD.

Call orders create planning security with Immediate availability

Thanks to our manufacturing processes and the continuous availability of raw materials, we are capable of manufacturing flanges, rings and collars within a very short time. The entire value added process remains unbroken and in our hands. This generates speed along with ultra-low cost

We produce series orders as well as call orders to meet customer requirements and hold them in stock specifically for our customers. The goods leave the factory on the very same day that a call order is placed.

At the same time, we save you as a system supplier from delivery delays in your international projects, in your automated further processing and in the resale of our products. For this purpose we offer our customers a comprehensive, worldwide dispatch service using our own carriers, by ship or airfreight, with longstanding and selected logistic partners.

"So we can confirm you preferred delivery date as soon as we receive your order."



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