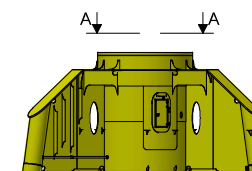
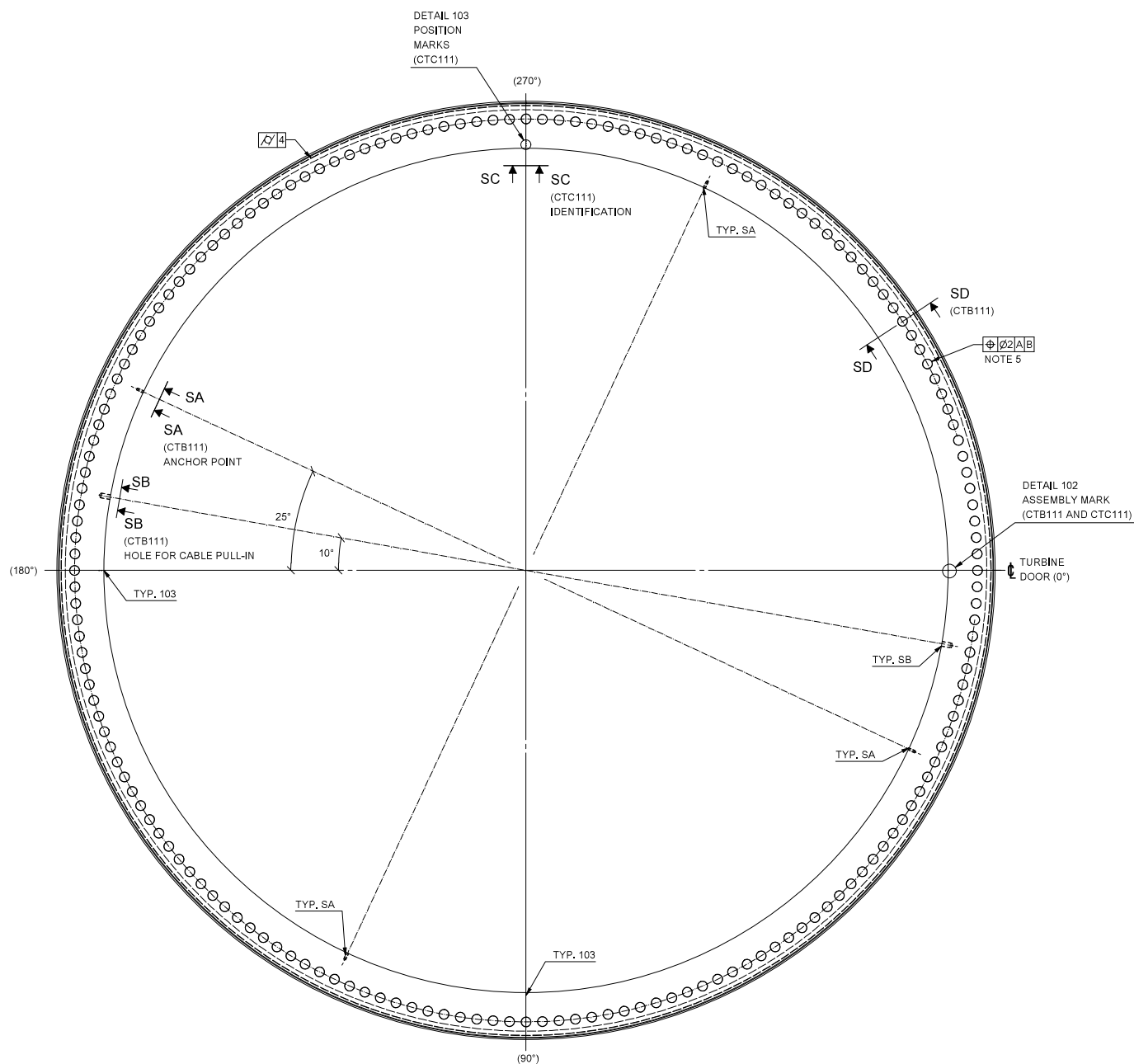


RESTRICTED



ELEVATION
EXCLUDING EXTERNAL PLATFORM



SECTION A, 1 : 25
(DETAILS ON CTB111 AND CTC111)

NOTES:

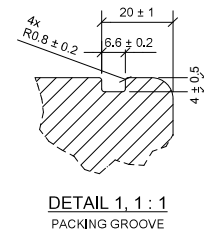
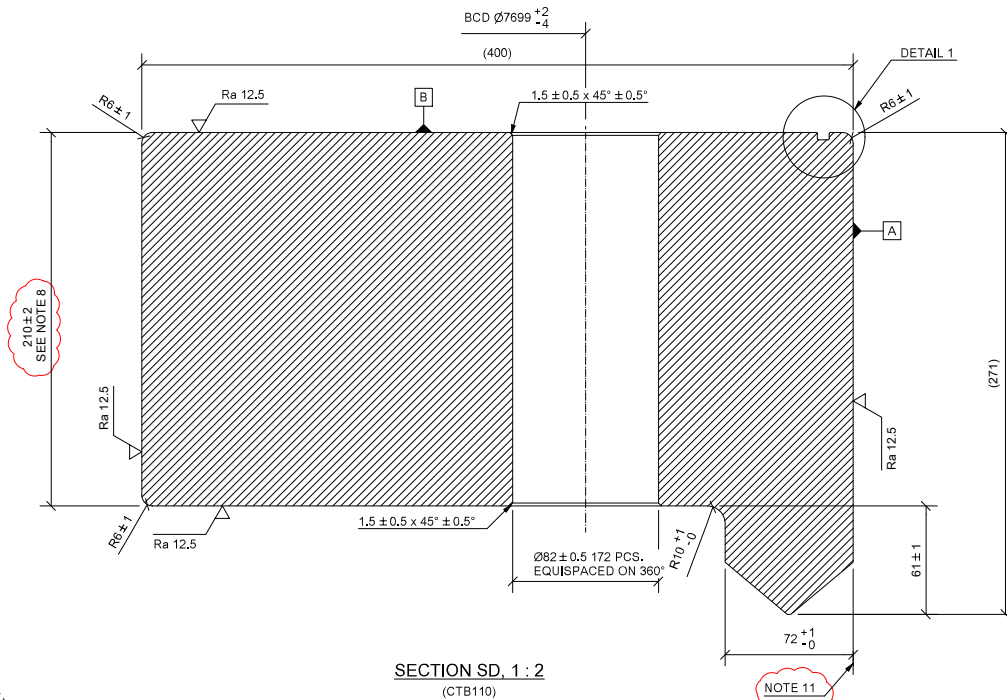
1. ALL DIMENSIONS ARE GIVEN IN mm.
2. LEVELS, SEE V10UMD & CT101.
3. ONLY WRITTEN DIMENSIONS SHALL BE USED.
4. GENERAL NOTES, SEE V10UMD & CEC100, CEC110 AND CEC120.
5. DATUM A AND B CAN BE SEEN ON CTB111 AND CTC111.
6. THREADED HOLES MUST BE FITTED WITH A GREASED PLASTIC BOLT TO PROTECT THE THREAD.

RELEASED FOR CONSTRUCTION

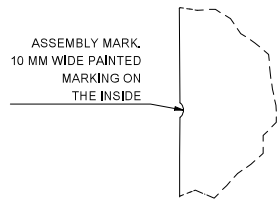
Drafted JEGHE	Prepared XUDEJ	Checked BETAN	Approved AFRJA
Size A2	File name CHW2204-V10UMD80_CTB110.jdw	Date 20-01-2023	
 www.orsted.com			
GREATER CHANGHUA OFFSHORE WINDFARM 2204 WTG FOUNDATION TRANSITION PIECE, PRIMARY STRUCTURE WTG-TP FLANGE, IN-PLACE			
Project ABB, CHW2204	Drawing no. V10UMD80 & CTB110		Re

TAEWONG
FOR FABRICATION
Forging Purchasing Team

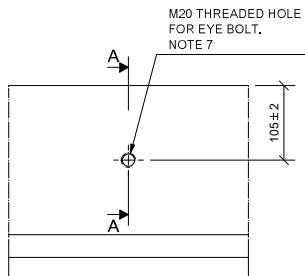
GREATER CHANGHUA OFFSHORE WINDFARM 2204
WTG FOUNDATION
TRANSITION PIECE, PRIMARY STRUCTURE
WTG-TP FLANGE, IN-PLACE



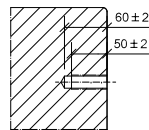
SECTION SD, 1:2
(CTB110)



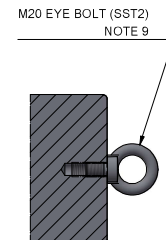
DETAIL 102, 1:2
(CTB110)



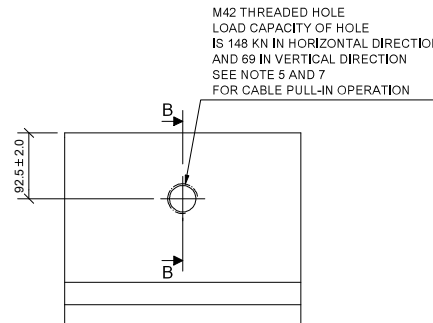
SECTION SA, 1:5
TYP. SA
ANCHOR POINT, 4 PCS
(CTB110)



SECTION A, 1:5

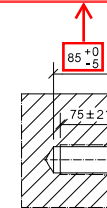


(SECTION A, 1:5)
WITH EYE BOLT



SECTION SB, 1:5
TYP. SB
2 PCS.
(CTB110)

85 +2/-5



SECTION B, 1:5

- NOTES:
1. ALL DIMENSIONS ARE GIVEN IN mm.
 2. LEVELS, SEE V10UMD & CTL101.
 3. ONLY WRITTEN DIMENSIONS SHALL BE USED.
 4. GENERAL NOTES, SEE V10UMD & CEC100, AND & CEC110.

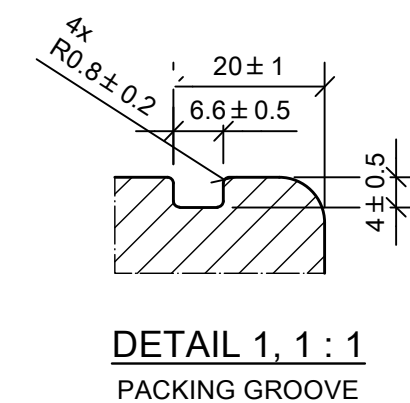
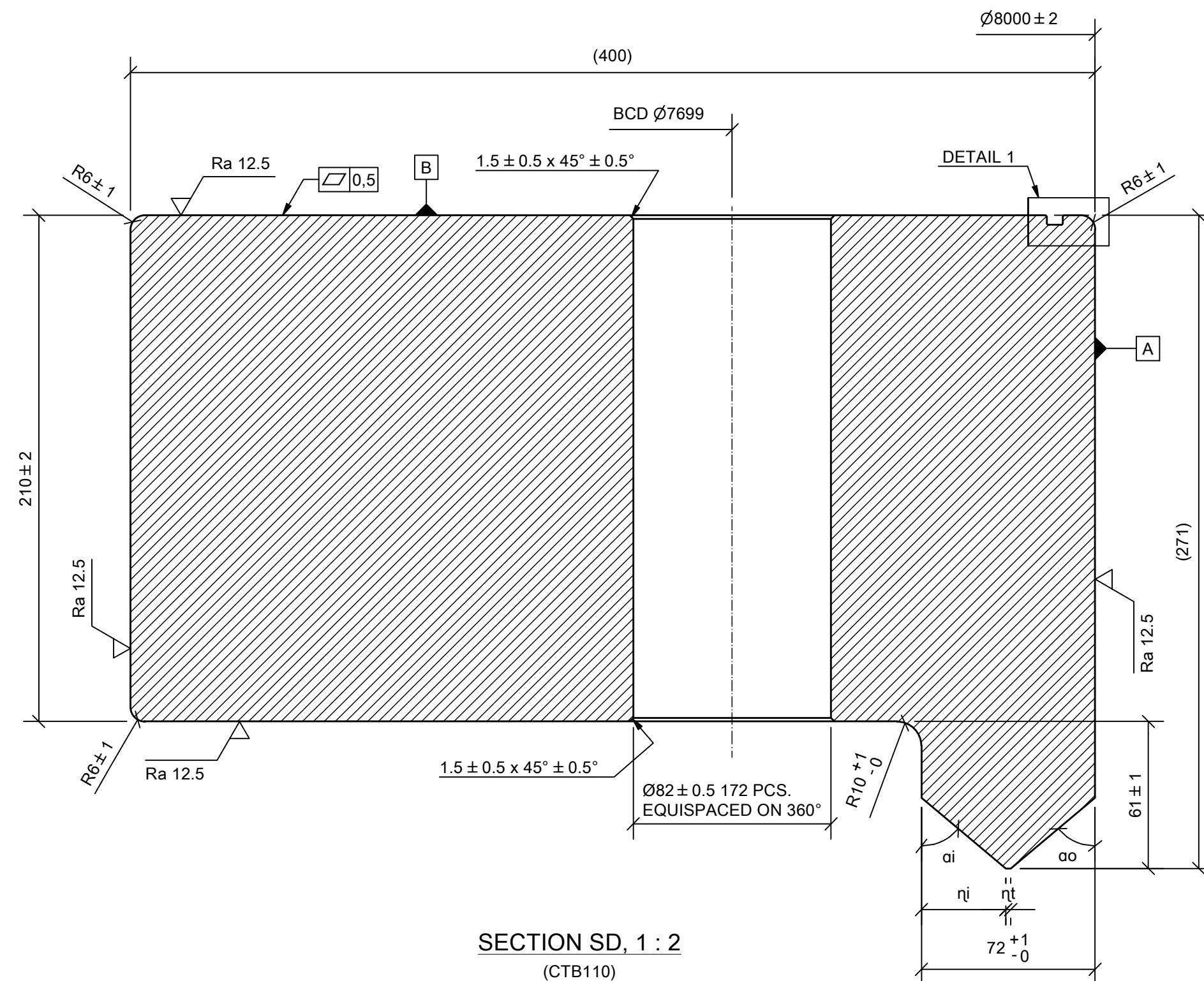
FABRICATION CONTRACTOR

5. THREADED HOLE TO BE APPLIED BY FABRICATION CONTRACTOR.
6. GEOMETRY AND TOLERANCES REFER TO THE AS-WELDED STATE. DATUM A AND B PERPENDICULAR.
7. THREADED HOLE MUST BE FITTED WITH A GREASED PLASTIC HEX SOCKET PLUG TO PROTECT THE THREADS. PLUG NOT TO EXCEED SURFACE OF THE FLANGE.
8. IF MACHINING OF THE FLANGE IS NEEDED AFTER WELDING IN ORDER TO FULFILL THE FLATNESS REQUIREMENTS DEFINED IN QTS-F-G1130, THE FLANGE CAN BE MACHINED TO A MINIMUM THICKNESS OF 205 mm. THE CONTRACTOR SHOULD NOT START TO MACHINE THE FLANGE BEFORE A NCR HAS BEEN APPROVED BY ENGINEER. THE FLANGE PROFILE AT DETAIL 1 SHALL BE RE-ESTABLISHED AFTER MACHINING.
9. EYE BOLT TO BE TESTED TO 20kN ACCORDING TO EN795. ANCHOR POINT SHALL BE OF A TYPE THAT CAN ROTATE FREELY AFTER IT HAS BEEN INSTALLED, TO BE MOUNTED AFTER OFFHORE WTG INSTALLATION. EYE BOLT TO BE MATERIAL CERTIFICATE 3.2
10. ALL FABRICATION TOLERANCES SHALL BE IN ACCORDANCE TO QTS-F-G1130.
11. WELD PROFILING TO BE PROPOSED BY FABRICATOR AND APPROVED BY ENGINEER.

RELEASED FOR CONSTRUCTION

Drafted LAHNO	Prepared XJDEJ	Checked BETAN	Approved APNJA
Size A2	File name CHW2204-V10UMD80_CTB111.jdw	Date 20-01-2023	
 GREATER CHANGHUA OFFSHORE WINDFARM 2204 WTG FOUNDATION TRANSITION PIECE, PRIMARY STRUCTURE WTG-TP FLANGE, IN-PLACE DETAILS			
Project ABB, CHW2204	Drawing no., V10UMD80 & CTB111	Rev. e	

TAEWOONG
FOR FABRICATION
Forging Purchasing Team



PTSC () :
230221-19460-001~006
230221-19460-009~011
230221-19460-017~019
230221-19460-025~030
230221-19460-033~035
230221-19460-041~043
230221-19460-049~052
230221-19460-057~061

SUNG DONG () :

230221-19460-007~008

230221-19460-012~016

230221-19460-020~024

230221-19460-031~032

230221-19460-036~040

230221-19460-044~048

230221-19460-053~056

230221-19460-062~066

-	PTSC
ai	$60^\circ \pm 2^\circ$
ao	$60^\circ \pm 2^\circ$
qi	$34 \text{ mm} \pm 1 \text{ mm}$
qt	$3 \text{ mm} \pm 1 \text{ mm}$
NUMBER OF FLANGES	33

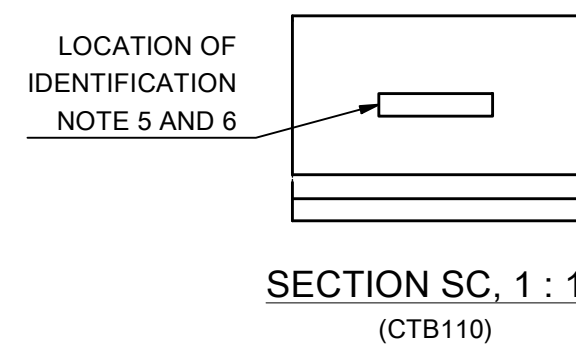
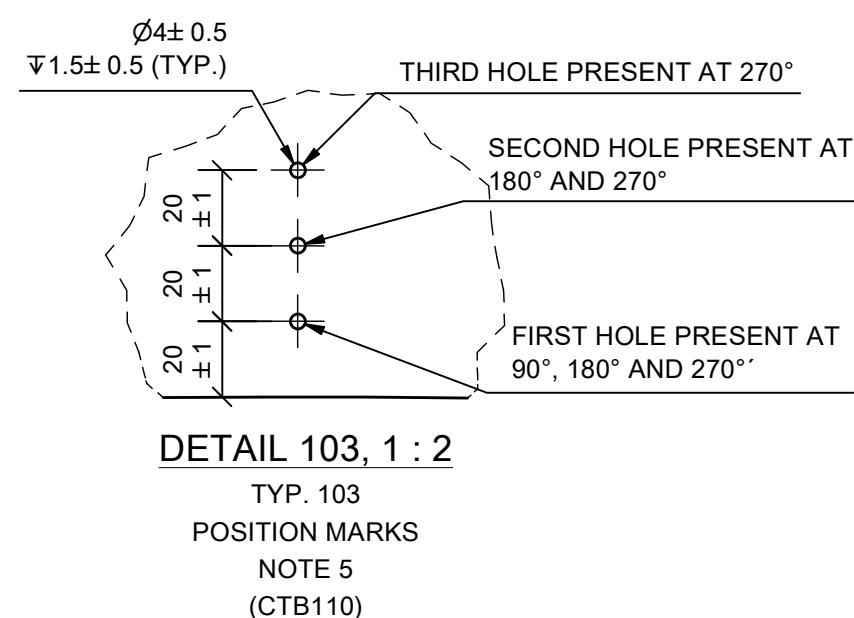
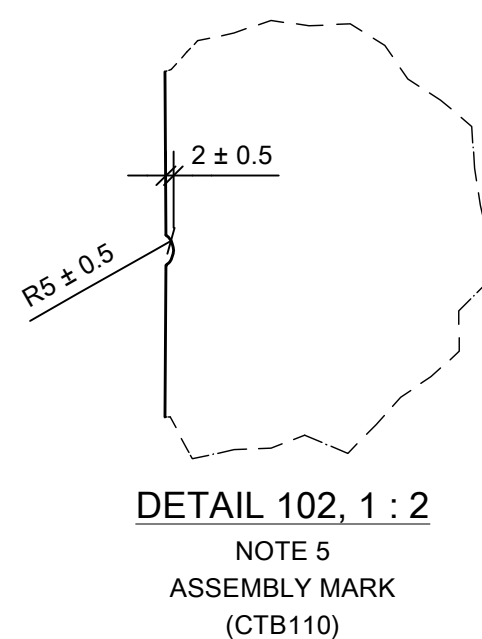
-	SUNGDOG
αi	60° ± 2°
αo	60° ± 2°
ηi	38 mm ± 1 mm
ηt	2 mm ± 1 mm
NUMBER OF FLANGES	33

NOTES:

1. ALL DIMENSIONS ARE GIVEN IN mm.
2. LEVELS, SEE V10UMD &CTL101.
3. ONLY WRITTEN DIMENSIONS SHALL BE USED.
4. GENERAL NOTES, SEE V10UMD &CEC100, AND &CEC110.

FLANGE SUPPLIER

5. TO BE APPLIED BY FLANGE SUPPLIER.
6. LOW STRESS STAMPS TO BE USED.
7. FLANGE MATERIAL/SPECIFICATION: S355 NL + EN10164-235. CHEMICAL AND MECHANICAL PROPERTIES MUST BE AS A MINIMUM TO SATISFY REQUIREMENTS IN EN 10025-3. YIELD STRENGTH REH>265MPA.
8. THE FLANGE SHALL BE MANUFACTURED AS "FORGED FLANGES" ACCORDING TO OTS-F-G1131.



Drafted LANHO	Prepared XJDEJ	Checked BETAN	Approved ARNJA
Size A2	File name CHW2204-V10UMD80_CTC111.idw	Date 14-04-2023	
 www.orsted.com			
GREATER CHANGHUA OFFSHORE WINDFARM 2204 WTG FOUNDATION TRANSITION PIECE, PRIMARY STRUCTURE WTG-TP FLANGE, MANUFACTURING			
Project ABB. CHW2204	Drawing no. V10UMD80 & CTC111		Rev. f

RE: [RE]FW: [Primer Data sheet & Drawing Tolerance] Orsted / CHW2204 / 230221-19460

보낸사람 : Kwan Sup Yoon<KWASY@orsted.com>
받는사람 : 김형석<hyungseok.kim@taewoong.com>
참조 :
받은시간 : 2023-04-13 09:03

Dear HS,

Please refer to the following reply.

Best regards,
Kwan Sup Yoon
Senior Contract Manager
APAC Contract Management
EPCO & IT

Ørsted

From: 김형석 <hyungseok.kim@taewoong.com>
Sent: Thursday, April 13, 2023 8:56 AM
To: Kwan Sup Yoon <KWASY@orsted.com>
Subject: [RE]FW: [Primer Data sheet & Drawing Tolerance] Orsted / CHW2204 / 230221-19460

Dear Mr. Kwan Sup Yoon,

Thanks for the e-mail.

Taewoong will not apply the shop primer for CHW2204 project.: **Confirmed**

Regarding the tolerance, does Taewoong have to follow 85 +2 / -5 ? : **Yes. It is.**

Best regards / 감사합니다.

김 형 석 | Karl Kim



Tel. +82-51-899-7050
Fax. +82-51-899-7001
Cellphone +82-10-4492-0421
Website www.taewoong.com
Add. 15, Hwajeonsandan-ro, Gangseo-gu, Busan, South Korea (46740)

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-----Original Message-----

보낸사람 : Kwan Sup Yoon<KWASY@orsted.com>
받은시간 : 2023-04-13 08:52:13
받는사람 : 태웅김형석<hyungseok.kim@taewoong.com>
제목 : FW: [Primer Data sheet & Drawing Tolerance] Orsted / CHW2204 / 230221-19460

FYI

Shop primer will not be applied for CHW2204 project.

Best regards,
Kwan Sup Yoon
Senior Contract Manager
APAC Contract Management
EPCO & IT

Ørsted

From: Benny Korsholm Tang <BETAN@orsted.com>
Sent: Wednesday, April 12, 2023 10:18 PM
To: Kwan Sup Yoon <KWASY@orsted.com>
Subject: RE: [Primer Data sheet & Drawing Tolerance] Ørsted / CHW2204 / 230221-19460

Hi Kwan Sup.

I have asked our welding engineer about the primer.

Regarding the tolerance. Both are fine, if the agreement state $85 +2 / -5$ then leave as is. The hook on points are not going that deep.

Med venlig hilsen
Benny Korsholm Tang
Technical Project Manager
FOU Technical Project Management
EPCO & IT

Ørsted
Tlf. +45 99 55 58 09

From: Kwan Sup Yoon <KWASY@orsted.com>
Sent: Wednesday, April 12, 2023 12:46 PM
To: Benny Korsholm Tang <BETAN@orsted.com>
Subject: FW: [Primer Data sheet & Drawing Tolerance] Ørsted / CHW2204 / 230221-19460

Hi Benny,

Please refer to the attached primer coating at bevelling surface.

Follwing shall be confirmed. Taewoong can accept any one of following deviation.

Our deviation request when we quoted : $85 +5 / -0$
Form of Agreement (12page) : $85 +2 / -5$

Best regards,
Kwan Sup Yoon
Senior Contract Manager
APAC Contract Management
EPCO & IT

Ørsted

From: 김형석 <hyungseok.kim@taewoong.com>
Sent: Wednesday, April 12, 2023 2:35 PM
To: Kwan Sup Yoon <KWASY@orsted.com>
Cc: m.petersen@taewoong.dk; 김상우 <sangwoo.kim@taewoong.com>
Subject: [Primer Data sheet & Drawing Tolerance] Ørsted / CHW2204 / 230221-19460

Dear Mr. Kwan Sup Yoon,

Please see the attached product data sheet of Hempel's shop primer you asked.

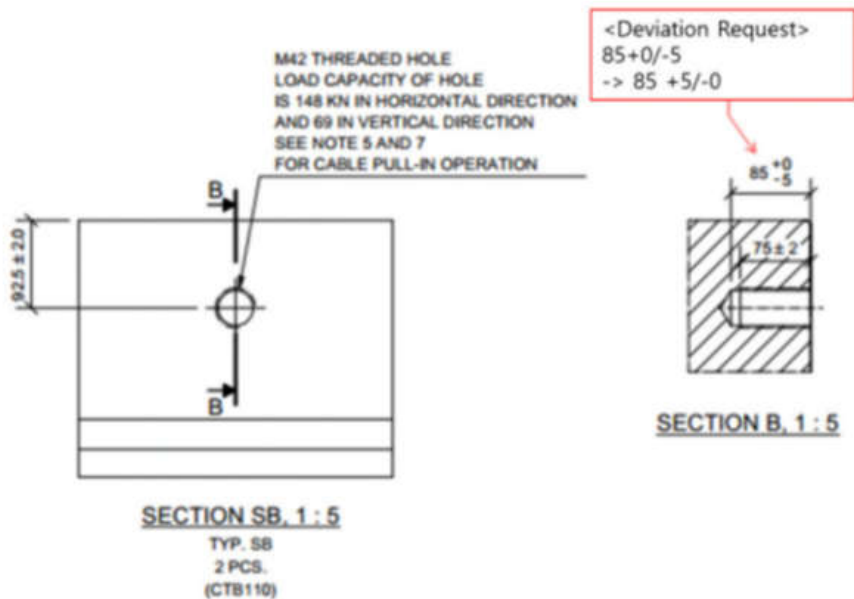
And would you check which tolerance of the drilling depth that Taewoong must follow?

Drawing : $85 +0 / -5$
Our deviation request when we quoted : $85 +5 / -0$
Form of Agreement (12page) : $85 +2 / -5$

6.3 Annex C to Appendix 1, Drawing

V10UMD80 & CTB110 and V10UMD80 & CTC111 are attached.

The deviation about Drilling depth of $85 \pm 2/-5$, as marked in the red box below, is accepted by Orsted Wind Power.



Best regards / 감사합니다.

김 형 석 | Karl Kim

external_image

Tel. +82-51-899-7050
Fax. +82-51-899-7001
Cellphone +82-10-4492-0421
Website www.taewoong.com
Add. 15, Hwajeonsandan -ro, Gangseo-gu, Busan, South Korea (46740)

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Form_of_Agreement_WK00127740_fullysigned.pdf

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