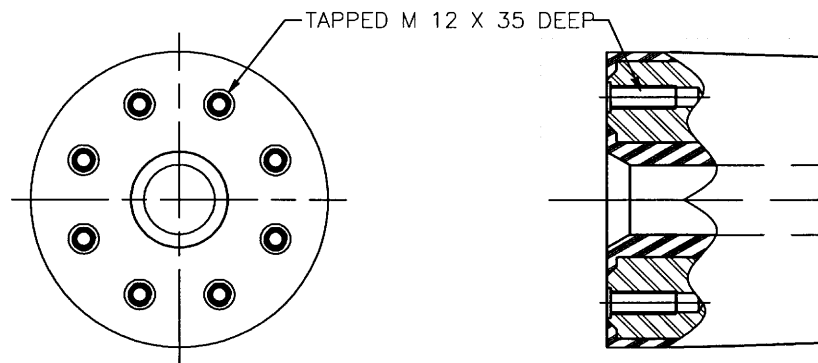
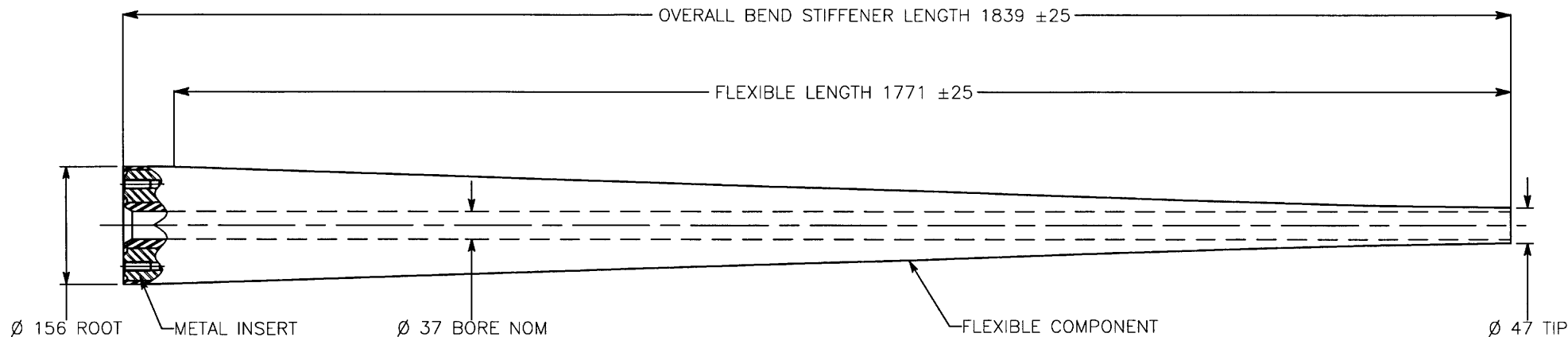


DO NOT SCALE – IF IN DOUBT ASK



ENLARGED VIEW ON INTERFACE DETAILS, SCALE 1:4

NOTES;

MATERIAL – FLEXIBLE COMPONENT : POLYETHER BASED POLYURETHANE, COLOUR BLACK.

MOUNT INSERT : STAINLESS STEEL, 316S31.

APPROX WEIGHT
IN AIR – 23 KGS
IN WATER – 7 KGS

OCP Cable Protection Ltd

North Lonsdale Rd Ind Est, Ulverston, Cumbria
LA12 9DL, UK
Tel +44 (0)1229 583914
Fax +44 (0)1229 581695
COMPANY REG. No. 2391144

A CRP HOLDINGS COMPANY

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DOCUMENT No. DES003/1 A4 ISSUE 3

REMOVE ALL BURRS BUT LEAVE CORNERS SHARP
UNLESS OTHERWISE STATED
SURFACE FINISH – N7 UNLESS OTHERWISE STATED

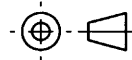
N No.	N5	N6	N7	N8	N9
MICROINCH	16	32	63	125	250
MICROMETER	0.4	0.8	1.6	3.2	6.3

GENERAL TOLERANCES
UNLESS OTHERWISE
STATED

X = ± 1.00 MM
X.X = ± 0.50 MM
X.XX = ± 0.25 MM
X* = ± 0.5*
X.X* = ± 0.25*

SCALE
1:8 AT A4 SIZE

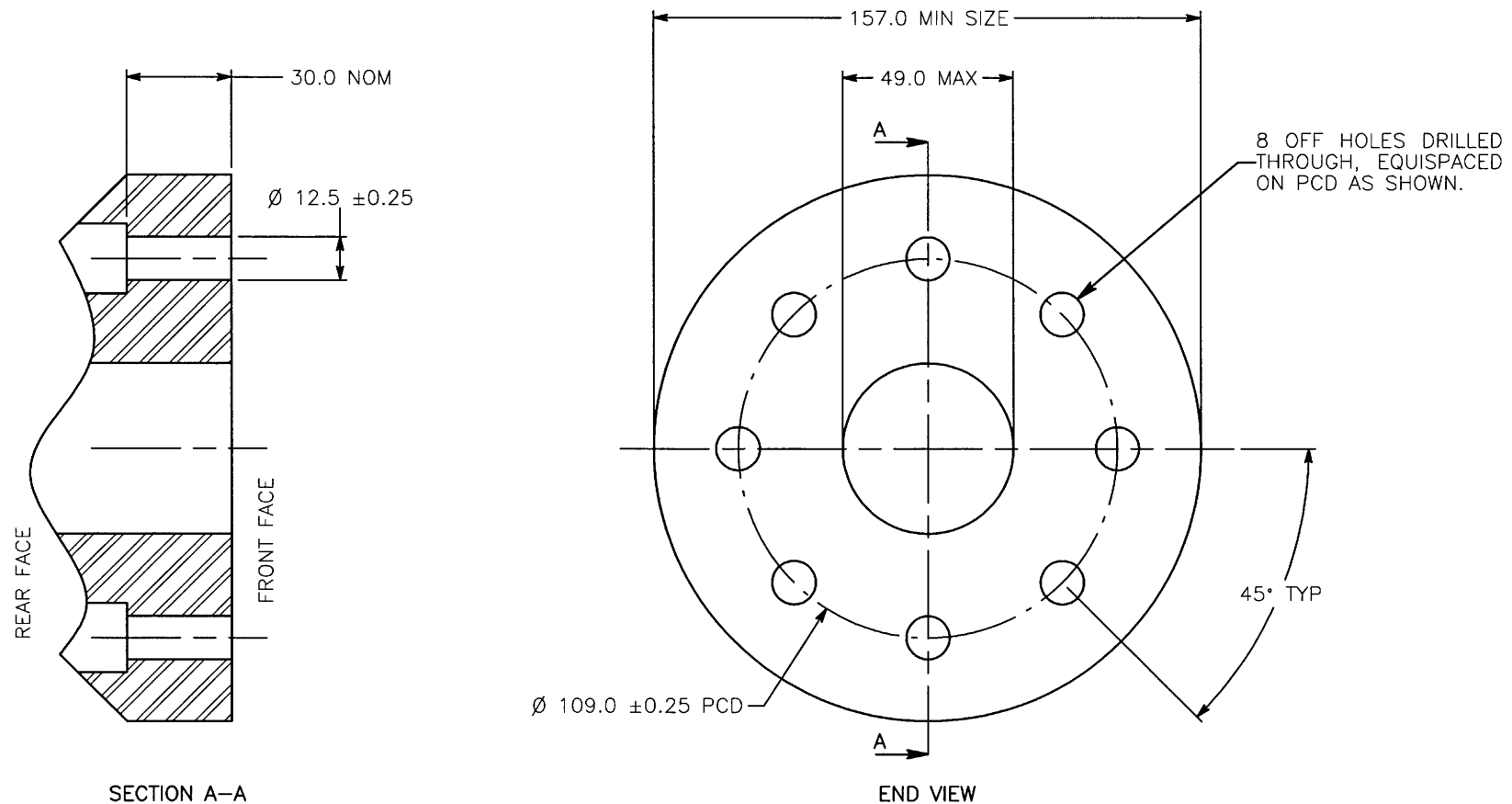
PROJECTION



UNITS MM

ISS	DCN NO	AUTHOR	DATE
			19/12/03
DRAWN	FRTY		DATE
CHECKED	S/Play		DATE
RELEASED	S/Play		DATE
BY			19-12-03

TITLE			
GENERAL ARRANGEMENT			
– BEND STIFFENER – PROTECTED BOND EDGE – Ø 34.5 NOM CABLE SIZE			
DRG NO	ISS	SHEET	
5561	B	1 OF 1	



NOTES;

MATERIAL – TO BE COMPATIBLE WITH 316S31 BEND STIFFENER MOUNT INSERT.

FLANGE I/D MAY BE REDUCED AT CLIENT DISCRETION – FLANGE O/D MAY BE INCREASED AT CLIENT DISCRETION.

FRONT FACE TO BE SMOOTH AND FREE FROM SURFACE DEFECTS TO ALLOW BEND STIFFENER ATTACHMENT.

REAR FACE AT CLIENT DISCRETION, MUST ALLOW ACCESS FOR M 12 SOCKET HEAD CAP SCREW HEADS TO BE TORQUED IN PLACE.

M 12 SOCKET HEAD CAP SCREW MUST ACHIEVE AT LEAST 30 MM OF MATERIAL FOR NOMINAL FLANGE THICKNESS.

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DOCUMENT No. DES003/1 A4 ISSUE 3

REMOVE ALL BURRS BUT LEAVE CORNERS SHARP
UNLESS OTHERWISE STATED

SURFACE FINISH – N7 UNLESS OTHERWISE STATED

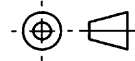
N No.	N5	N6	N7	N8	N9
MICROINCH	16	32	63	125	250
MICROMETER	0.4	0.8	1.6	3.2	6.3

GENERAL TOLERANCES
UNLESS OTHERWISE
STATED

X = ± 1.00 MM
X.X = ± 0.50 MM
X.XX = ± 0.25 MM
X* = ± 0.5°
X.X* = ± 0.25°

SCALE
1:2 AT A4 SIZE

PROJECTION



UNITS MM

ISS

DCN NO

AUTHOR

DATE

DRAWN

CHECKED

RELEASED BY

DATE

DATE

DATE

TITLE

INTERFACE FLANGE DETAILS

– BEND STIFFENER
– PROTECTED BOND EDGE
– Ø 34.5 NOM CABLE SIZE

DRG NO

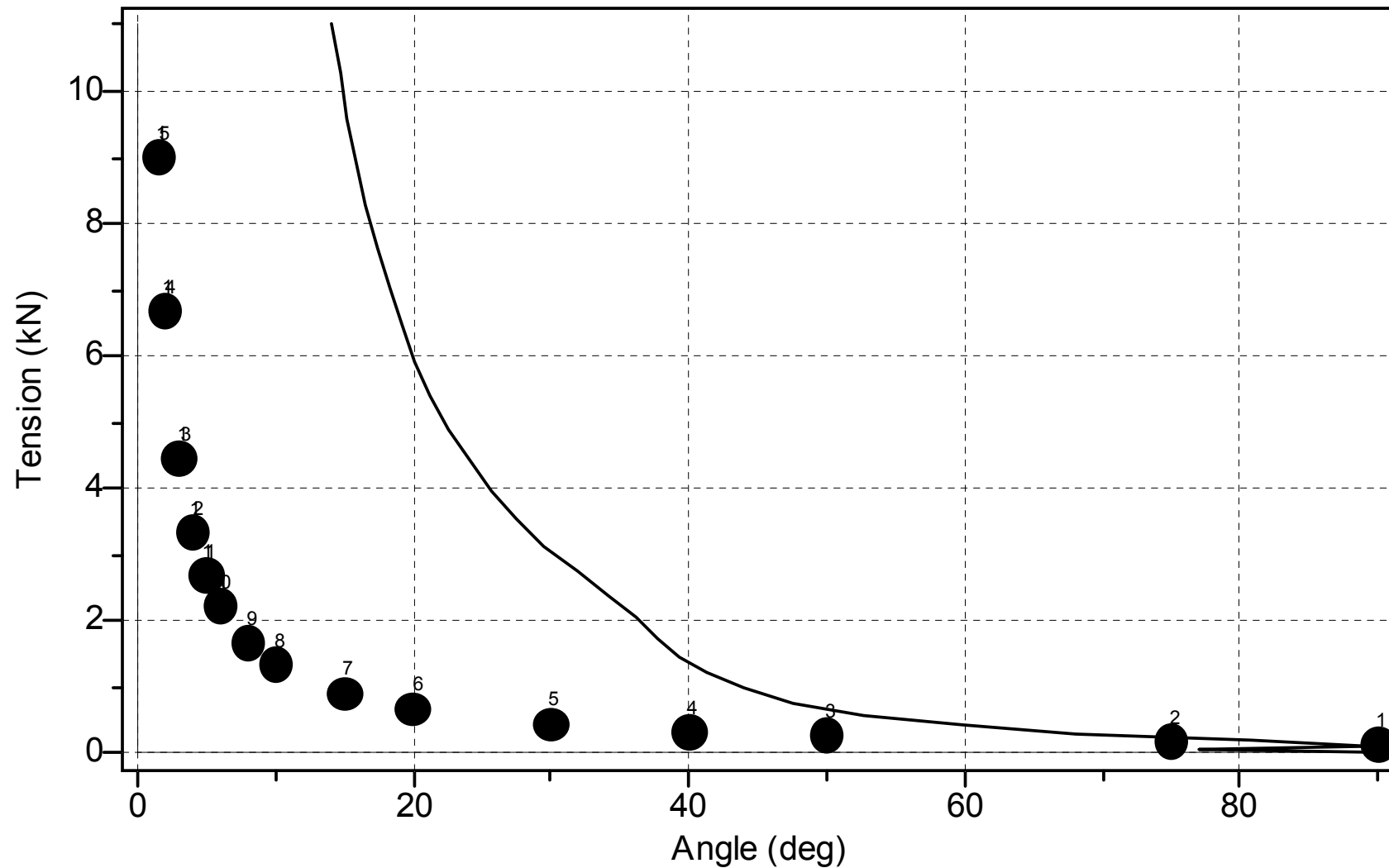
J2316-FIG-001

ISS

A

SHEET 1 OF 1

OrcaBend: J2316#2 (Top & Sub-Sea).obd (modified 14:40 on 19/12/03)



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OCP CABLE PROTECTION LTD

J2316-DESIGN SUMMARY-002

Orcabend Run No. :	J2316#2	Date :	19 th December 2003
Enquiry No. :	E2385	Customer :	MBARI – Via CRP Group
Job No. :	J2316	Project :	Moos Mooring System

Introduction

OCP have been requested to provide cable protection to work in conjunction with the CRP Linksyn system.

Reference Documents

1. "CRP_Design_Specifics", Rev 1.0 - 5 Dec 2003, emailed from Andrew Hamilton – Dated 09/12/03.
2. "11550 MBARI Schedule.xls", emailed to Andrew Hamilton – Dated 03/12/03

Properties of Flexible

Outside Diameter	28 and 34.5	mm	with a	N/A	mm	tolerance
Minimum Bend Radius	1,000	mm	(stored)	N/A	mm	(operational)
Stiffness	0.015 Est'	KNm ²	(min.)	0.05 Est'	KNm ²	(max.)

Duty and Environmental Conditions

Load Cases

Tension (kN)	Angle °	Tension (kN)	Angle °
1250/θ	See Chart		
3000/θ	See Chart		

Deployed in air / water (*delete as applicable*)
Both air and water.

Temperature 0° °C (min)
23° °C (max)

Design Parameters

P.U. Code OCP 002

Key Dimensions

— Root O/D	156	mm	(max.)
— Flexible Length	1771	mm	(nom.)
— Tip O/D	47	mm	(nom.)
— Bore	37	mm	(nom.)

Bolt Details

— Size	M 12 x 60 mm Lg SHCS
— Material	Stainless Steel A4-70 Min
— Quantity	8 Off
— P.C.D	Ø 109.0 mm