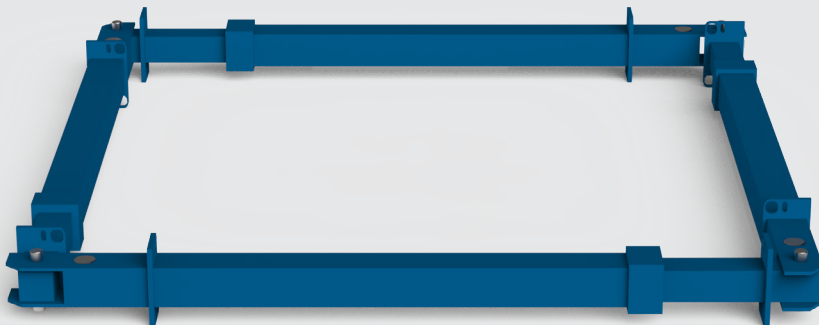


TECHNICAL DATA SHEET

DOUBLE ACTING MANHOLE BRACE

V2



INTRODUCTION

OVERVIEW

The Double Acting Manhole Brace comprises six different lengths of hydraulic bracing frame legs (Types A-F), which simply pin together at the corners. This bracing system is used with trench sheets or sheet piles to create small cofferdams for the construction of manholes, small chambers and tanks.

Suspended from the trench sheets with restraining chains, the manhole bracing frames are able to clear span up to 6.0 metres in both directions.

DESIGNED TO EN STANDARDS

This Double Acting Manhole Brace has been designed in accordance with EN 14653, manufactured in accordance with EN 1090 and carries the reassuring CE quality compliance mark.

To facilitate a simplified scheme design using established permissible load methods, load performance data in this document is displayed as an 'Allowable Working Load' (AWL). Should Limit State Design be required, the Design Resistance may be obtained by multiplying the Allowable Load Limit (AWL) by 1.5.

KEY BENEFITS

QUICK AND EASY INSTALLATION

Able to extend both ways, the legs can be positioned without precise pre-measurement, reducing set-up time and labour during installation.

PRECISE LOAD ADJUSTMENT

Controlled expansion in both directions makes it easier to apply the exact pressure required against excavation walls, improving stability and reducing the risk of over/under-loading.

IMPROVED SAFETY

Consistent and adjustable pressure enhances excavation support, preventing the risk of wall collapse and providing a safe environment for personnel to work in.

VERSATILITY IN CONFINED SPACES

Particularly effective in manholes, shafts, trenches and other tight areas where traditional support systems are too rigid or difficult to install.

BETTER ALIGNMENT AND STABILITY

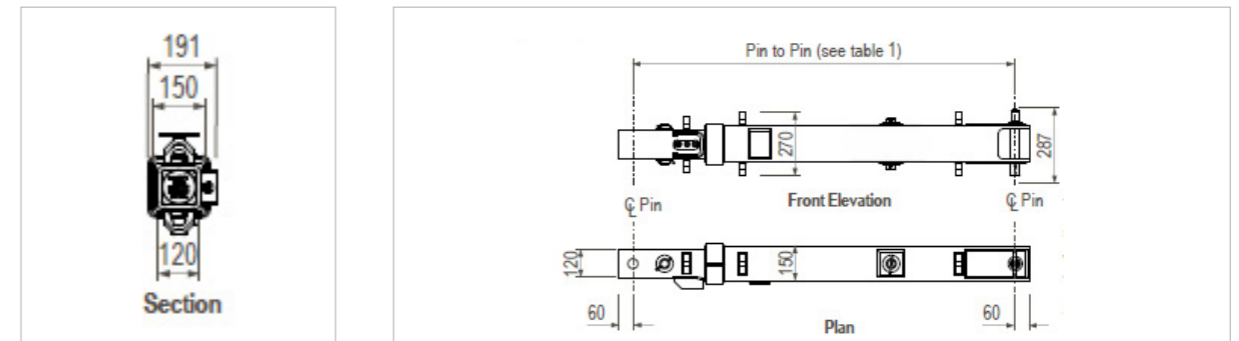
Maintains even pressure distribution across excavation walls, reducing the likelihood of misalignment or localised failure points.

SPECIFICATION

MANHOLE LEG TYPES A - C

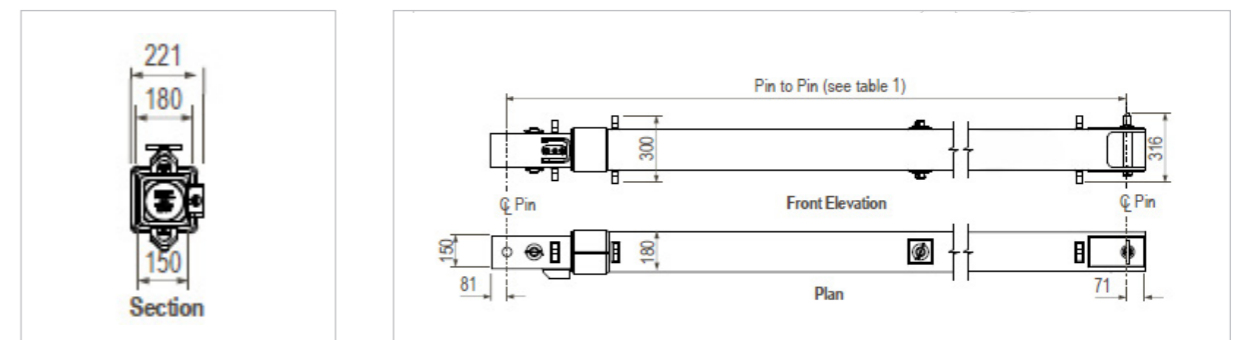
Used in conjunction with three other leg assemblies to support trench sheets or sheet piles in small to medium sized square or rectangular excavations.

The leg assembly consists of two steel box section struts (an inner and an outer) with integral lifting and suspension points. The inner strut hydraulically extends by 500mm.



MANHOLE LEG TYPES D - F

Used in conjunction with three other leg assemblies to support trench sheets or sheet piles in small to medium sized square or rectangular excavations.

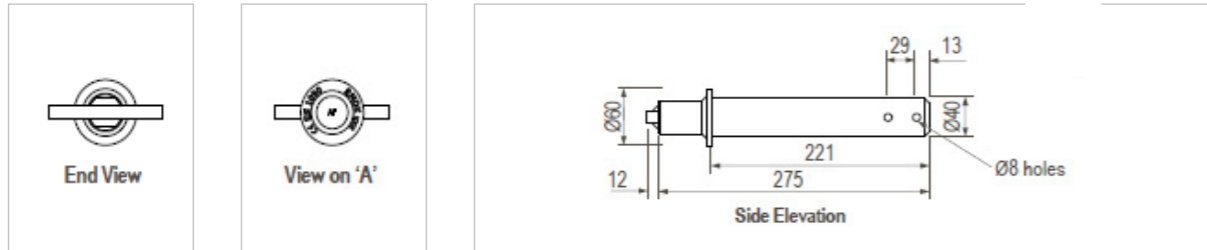


CODE	DESCRIPTION	WEIGHT (kg)
TL900408	DAMB A Leg 1335-1835mm	124
TL900409	DAMB B Leg 1734-2234mm	139
TL900410	DAMB C Leg 2104-2604mm	152
TL900411	DAMB D Leg 2539-3739mm	296
TL900412	DAMB E Leg 3638-4838mm	352
TL900413	DAMB F Leg 4739-5939mm	434

SPECIFICATION

MANHOLE BRACE TEE PIN

Used in conjunction with the Superslim R-Clip to fix together two Manhole Brace leg assemblies.



CODE	DESCRIPTION	LENGTH (mm)	DIAMETER (mm)	WEIGHT (kg)
TL900416	Manhole Brace Tee Pin	275	40	2.8

R-CLIP

Used in conjunction with the Manhole Brace Tee Pin.



CODE	DESCRIPTION	LENGTH (mm)	DIAMETER (mm)	WEIGHT (kg)
ZZ290006	R-Clip	100	5	0.03

SPECIFICATION

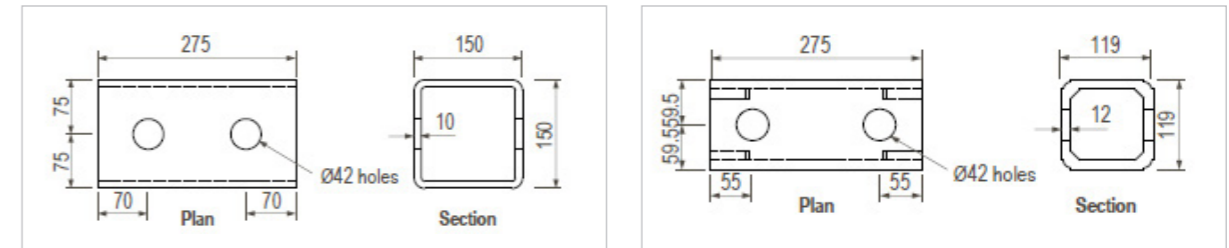
ADAPTORS

FEMALE ADAPTOR

Used to enable connection from Manhole Leg Assemblies D, E or F, to Leg Assemblies A, B or C in long and narrow manhole excavations. Fixes in place using two Manhole Brace Tee Pins and R-Clips.

MALE ADAPTOR

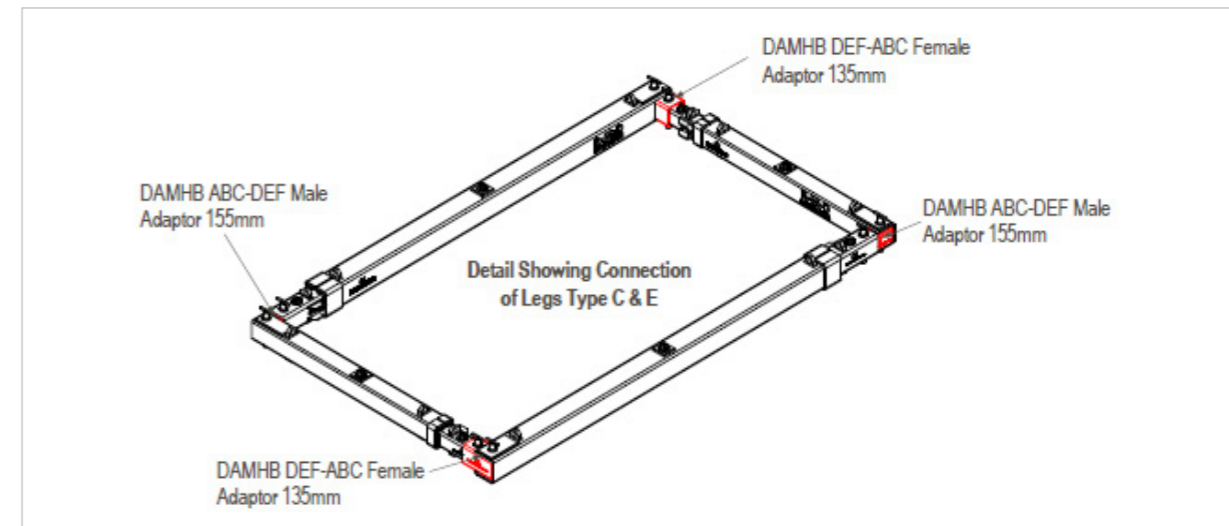
Used to enable connection from Manhole Leg Assemblies A, B or C to Leg Assemblies D, E or F in long and narrow manhole excavations. Fixes in place using two Manhole Brace Tee Pins and R-Clips.



FEMALE ADAPTOR

MALE ADAPTOR

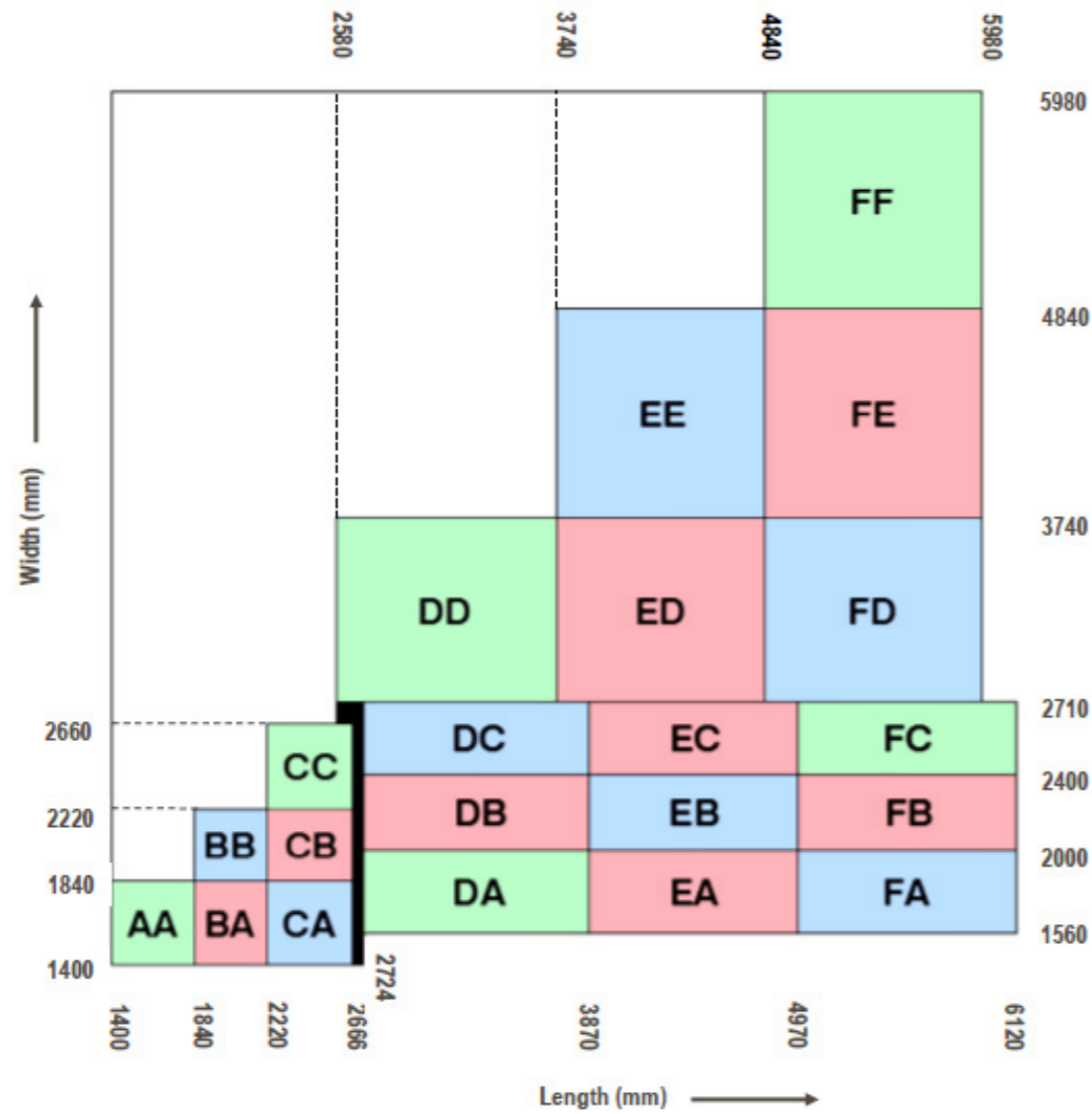
CODE	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (kg)
TL900414	Female Adaptor	275	150	150	10.9
TL900415	Male Adaptor	275	119	119	9.62



SPECIFICATION

TABLE 1

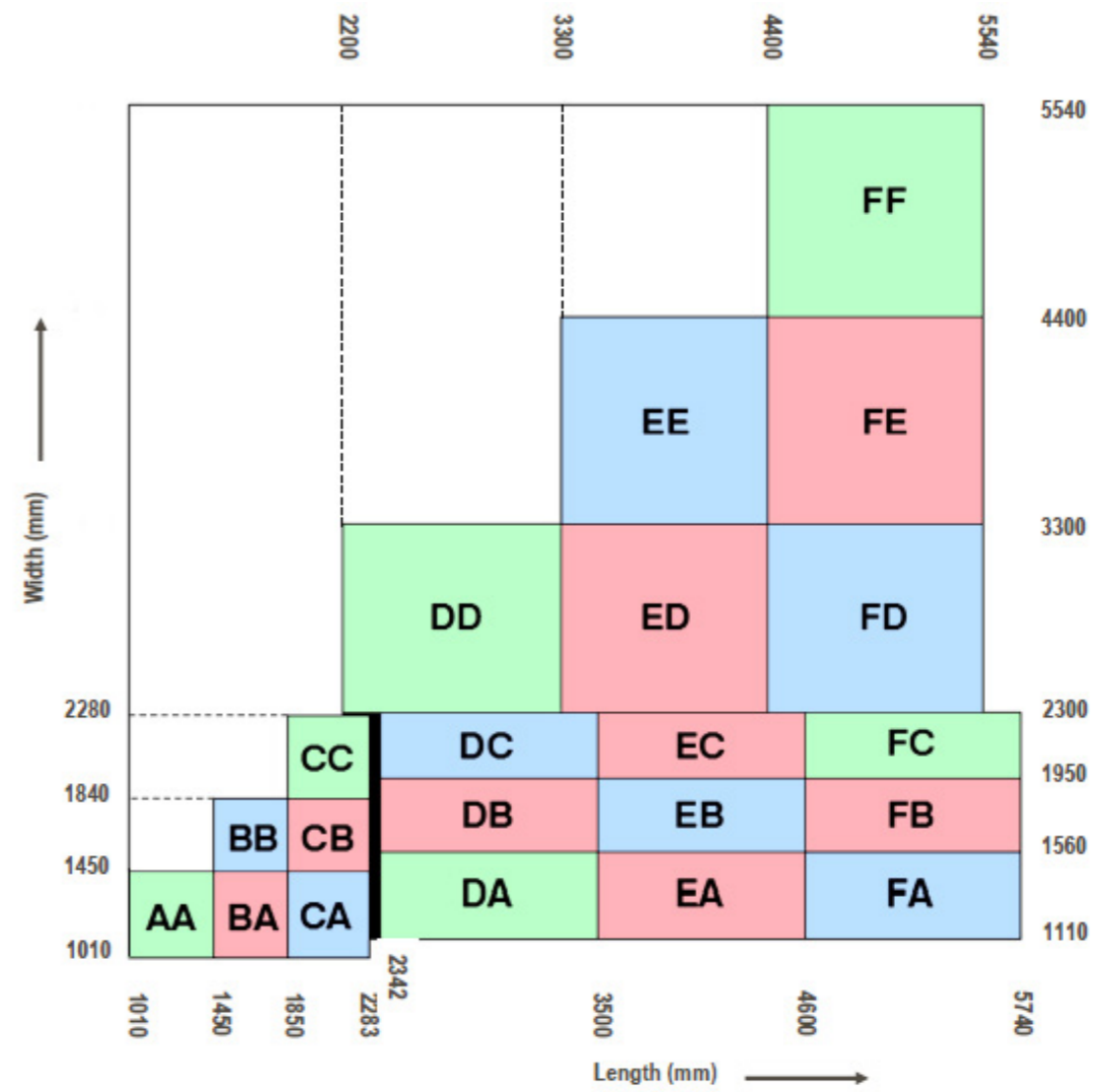
MANHOLE BRACE COMBINATIONS - SHEET TO SHEET



SPECIFICATION

TABLE 2

MANHOLE BRACE COMBINATIONS - INTERNAL CLEARANCE



SPECIFICATION

TABLE 3

COMPONENT ASSEMBLY - TOP MANHOLE BRACE FRAMES

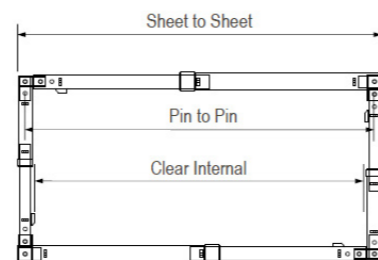
KIT NUMBER	PIN TO PIN				DAMB LEG						ADAPTOR		ACCESSORIES			WEIGHT (kg)
	SHORT LEG (mm)		LONG LEG (mm)		A	B	C	D	E	F	DEF - ABC	ABC - DEF	TEE PIN	R-CLIP	RCSH*	
	MIN	MAX	MIN	MAX												
01	1215	1715	-	-	4								4	4	4	526
02	1215	1715	1614	2114	2	2							4	4	4	557
03	1215	1715	1984	2484	2		2						4	4	4	582
04	1350	1850	2552	3752	2			2			2	2	8	8	4	923
05	1350	1850	3651	4851	2				2		2	2	8	8	8	1050
06	1350	1850	4751	5951	2					2	2	2	8	8	8	1220
07	1614	2114	-	-		4							4	4	4	588
08	1614	2114	1984	2484	2	2							4	4	4	613
09	1749	2249	2552	3752	2		2				2	2	8	8	4	953
10	1749	2249	3651	4851	2			2			2	2	8	8	8	1080
11	1749	2249	4751	5951	2				2		2	2	8	8	8	1250
12	1984	2484	-	-			4						4	4	4	638
13	2119	2619	2552	3752		2	2				2	2	8	8	4	979
14	2119	2619	3651	4851		2		2			2	2	8	8	8	1110
15	2119	2619	4751	5951		2			2		2	2	8	8	8	1270
16	2387	3587	-	-			4						4	4	4	1210
17	2387	3587	3486	4686			2	2					4	4	8	1350
18	2387	3587	4586	5786			2		2				4	4	8	1510
19	3486	4686	-	-				4					4	4	8	1460
20	3486	4686	4586	5786				2	2				4	4	8	1620
21	4586	5786	-	-						4			4	4	8	1790

*R Chain Shackle Hook

DIMENSION CONVERSIONS

To obtain pin to pin or clear internal dimensions for a DAMB leg from sheet to sheet dimensions, subtract the following offsets:

TYPE	CONNECTED TO	PIN TO PIN (mm)	CLEAR INTERNAL (mm)
Any Leg Assembly	A, B, C	-172	382
Any Leg Assembly	D, E, F	-202	1442



SPECIFICATION

TABLE 4

COMPONENT ASSEMBLY - LOWER MANHOLE BRACE FRAMES

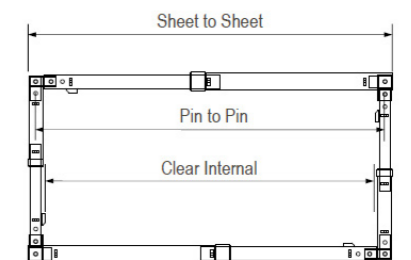
KIT NUMBER	PIN TO PIN				DAMB LEG						ADAPTOR		ACCESSORIES			WEIGHT (kg)
	SHORT LEG (mm)		LONG LEG (mm)		A	B	C	D	E	F	DEF - ABC	ABC - DEF	TEE PIN	R-CLIP	RCSH*	
	MIN	MAX	MIN	MAX												
01	1215	1715	-	-	4								4	4	4	523
02	1215	1715	1614	2114	2	2							4	4	4	554
03	1215	1715	1984	2484	2		2						4	4	4	579
04	1350	1850	2552	3752	2			2			2	2	8	8	4	920
05	1350	1850	3651	4851	2				2		2	2	8	8	8	1050
06	1350	1850	4751	5951	2					2	2	2	8	8	8	1210
07	1614	2114	-	-		4							4	4	4	585
08	1614	2114	1984	2484	2	2							4	4	4	610
09	1749	2249	2552	3752	2		2				2	2	8	8	4	951
10	1749	2249	3651	4851	2			2			2	2	8	8	8	1080
11	1749	2249	4751	5951	2				2		2	2	8	8	8	1240
12	1984	2484	-	-			4						4	4	4	635
13	2119	2619	2552	3752		2	2				2	2	8	8	4	976
14	2119	2619	3651	4851		2		2			2	2	8	8	8	1100
15	2119	2619	4751	5951		2			2		2	2	8	8	8	1270
16	2387	3587	-	-			4						4	4	4	1210
17	2387	3587	3486	4686			2	2					4	4	8	1340
18	2387	3587	4586	5786			2		2				4	4	8	1500
19	3486	4686	-	-				4					4	4	8	1450
20	3486	4686	4586	5786				2	2				4	4	8	1620
21	4586	5786	-	-						4			4	4	8	1780

*R Chain Shackle Hook

DIMENSION CONVERSIONS

To obtain pin to pin or clear internal dimensions for a DAMB leg from sheet to sheet dimensions, subtract the following offsets:

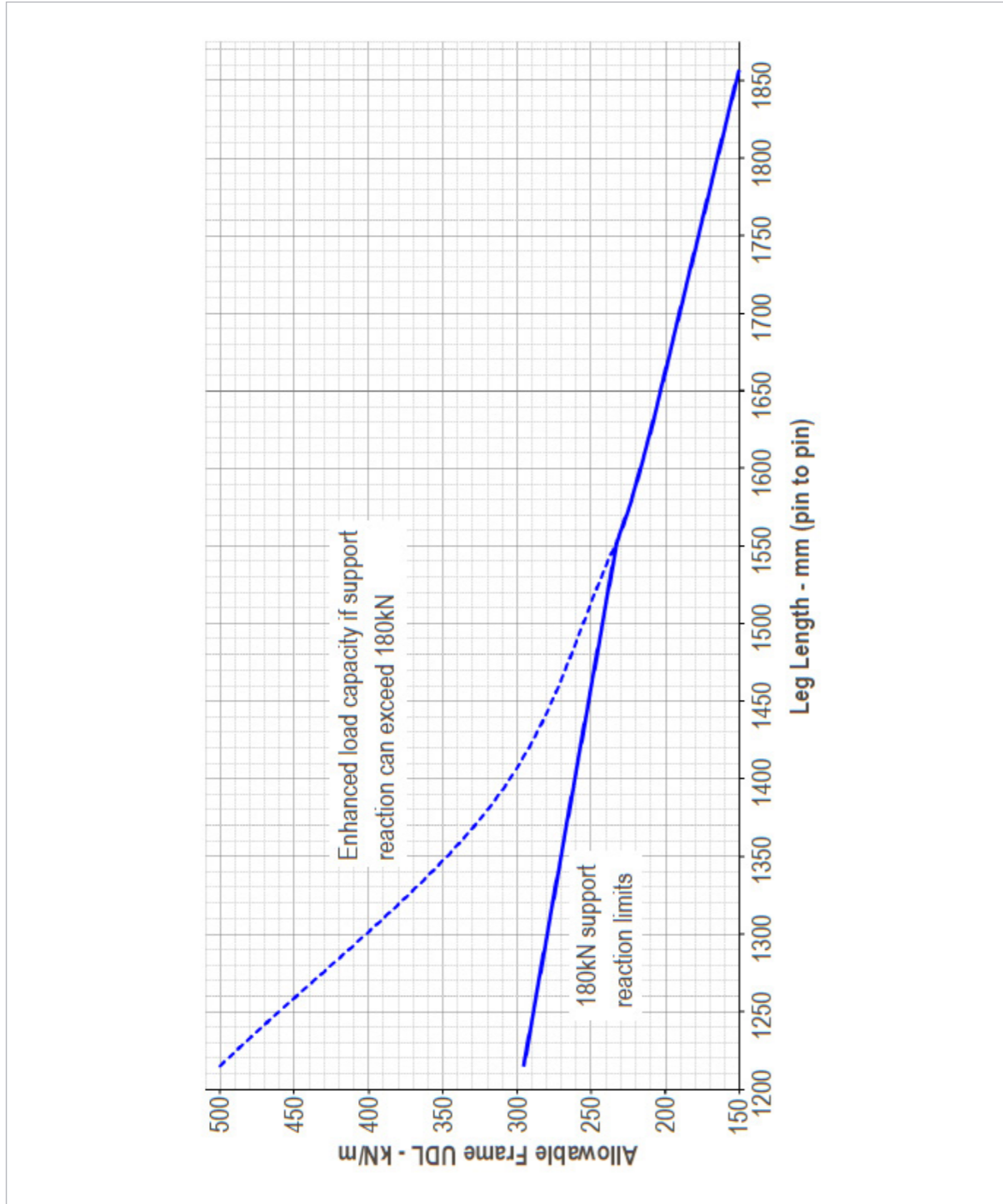
TYPE	CONNECTED TO	PIN TO PIN (mm)	CLEAR INTERNAL (mm)
Any Leg Assembly	A, B, C	-172	382
Any Leg Assembly	D, E, F	-202	1442



SPECIFICATION

GRAPH 1

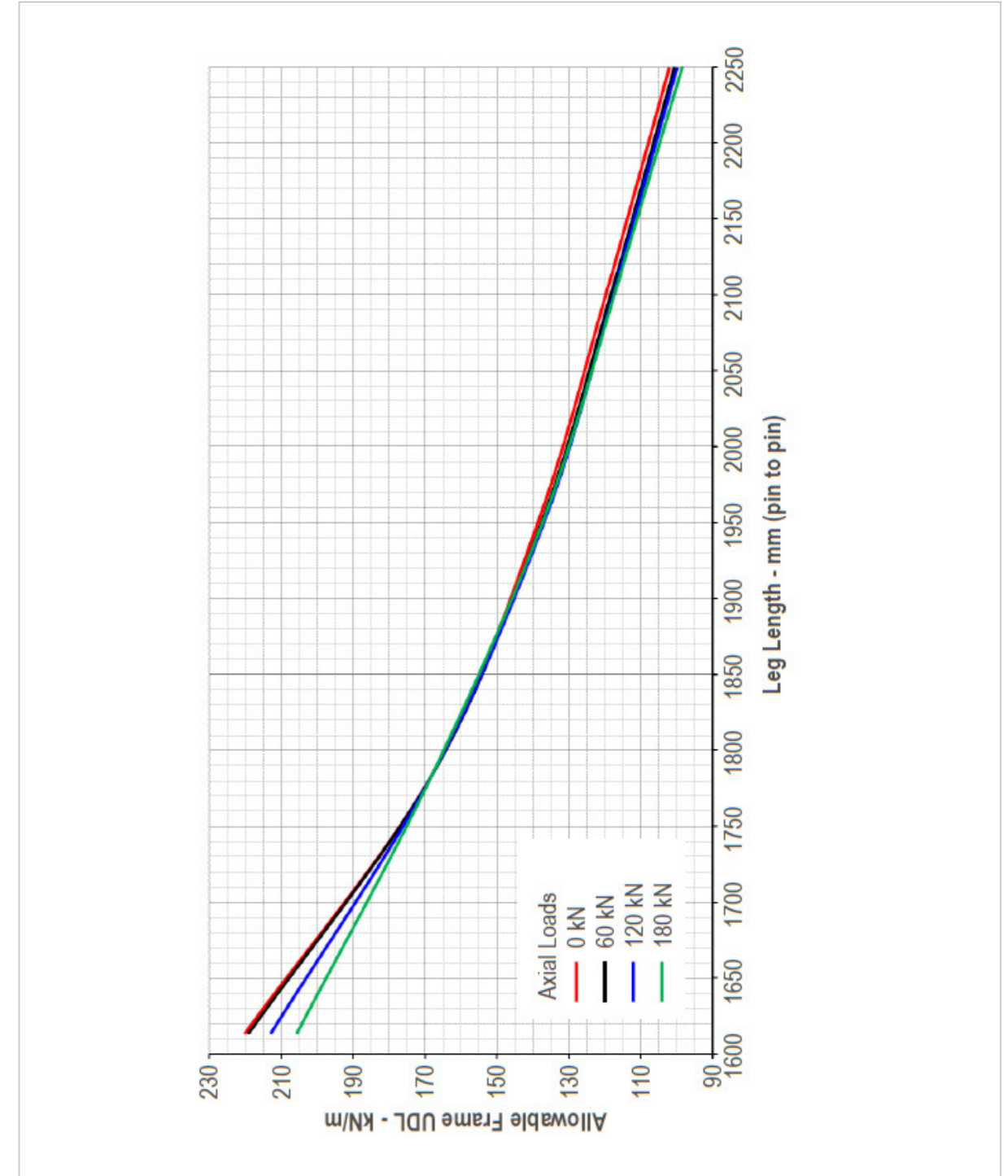
ALLOWABLE WORKING LOADS - MANHOLE BRACE 'A'



SPECIFICATION

GRAPH 2

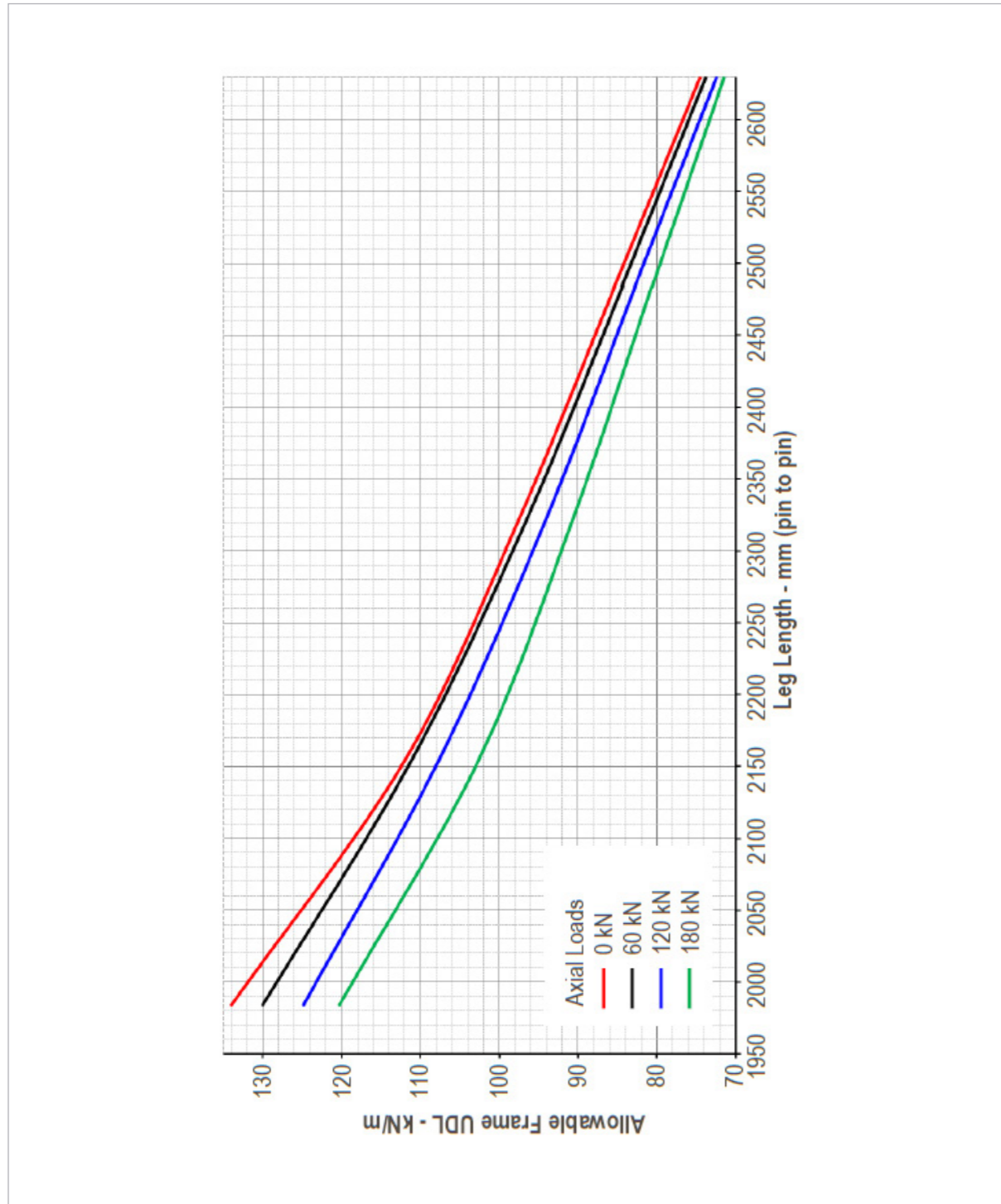
ALLOWABLE WORKING LOADS - MANHOLE BRACE 'B'



SPECIFICATION

GRAPH 3

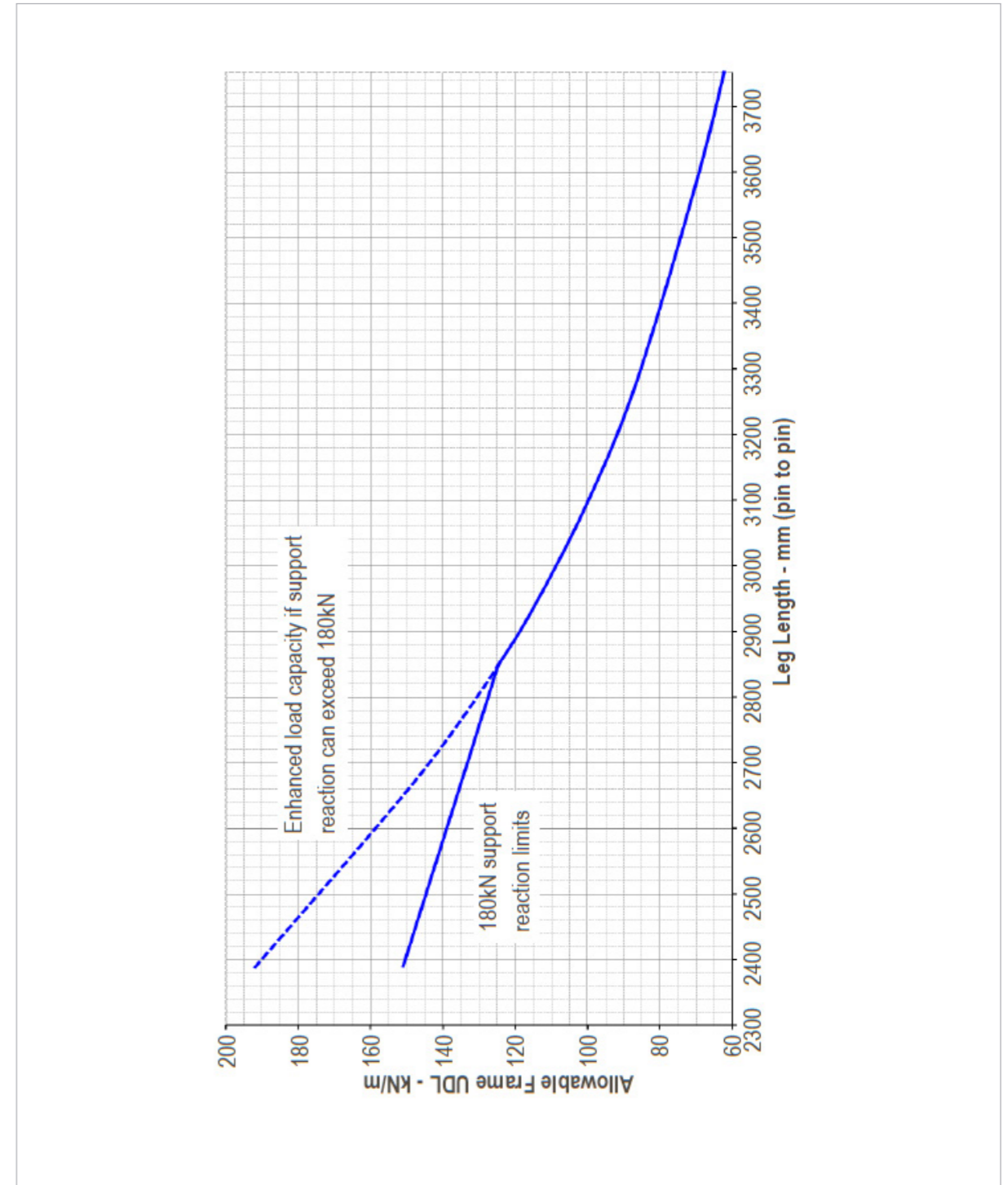
ALLOWABLE WORKING LOADS - MANHOLE BRACE 'C'



SPECIFICATION

GRAPH 4

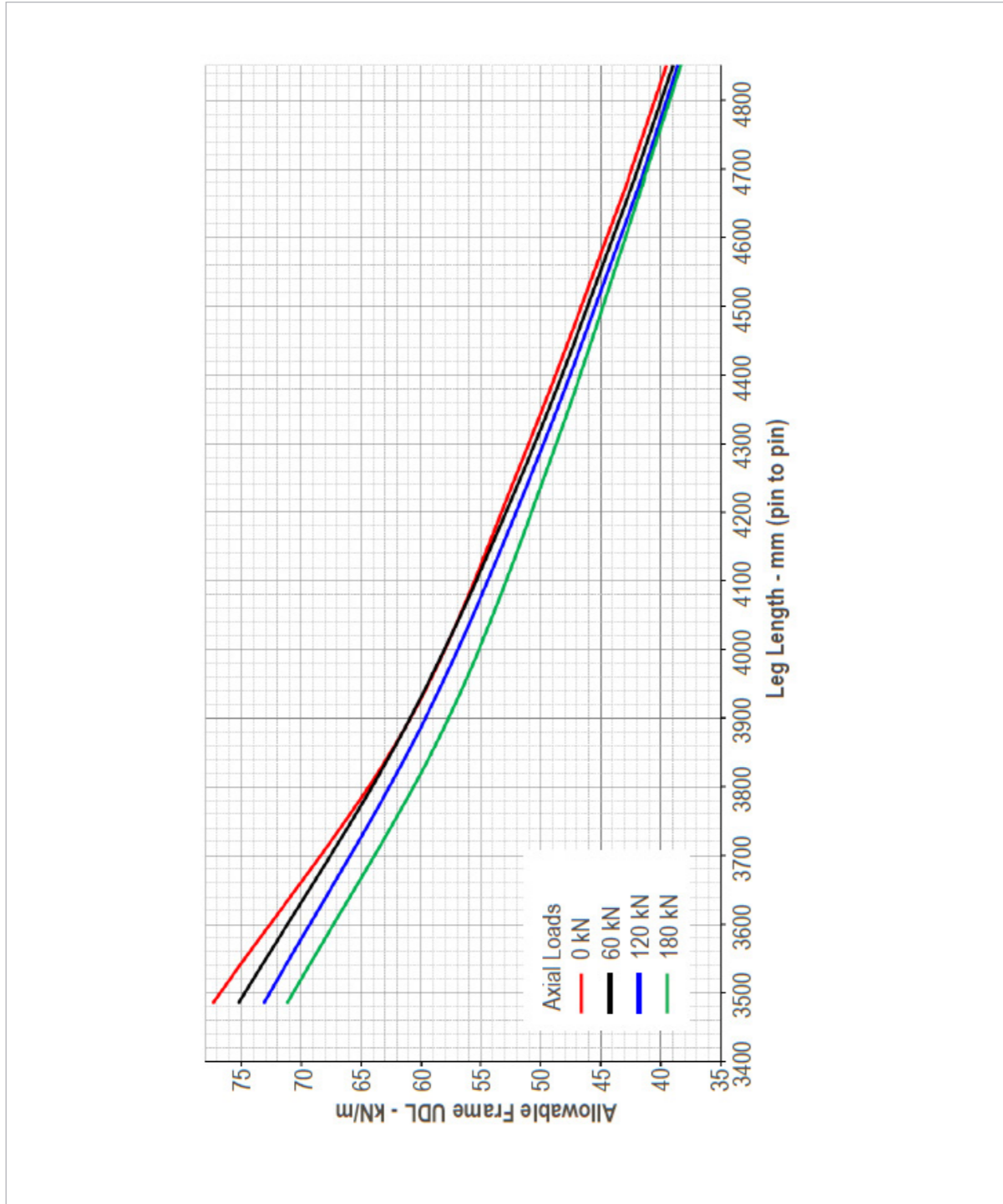
ALLOWABLE WORKING LOADS - MANHOLE BRACE 'D'



SPECIFICATION

GRAPH 5

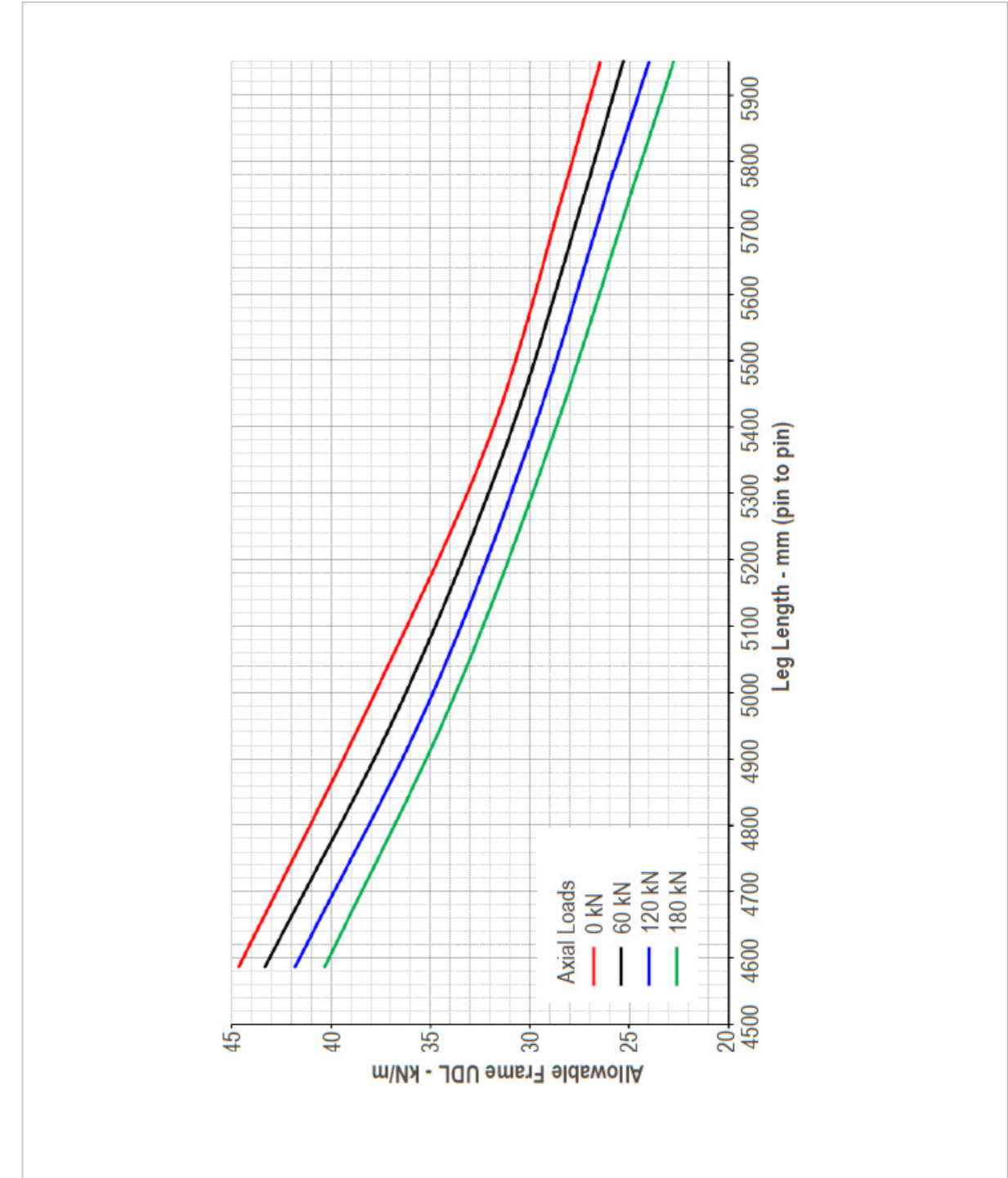
ALLOWABLE WORKING LOADS - MANHOLE BRACE 'E'



SPECIFICATION

GRAPH 6

ALLOWABLE WORKING LOADS - MANHOLE BRACE 'F'



TALKING TO US IS EASY
WE'RE HERE TO HELP

Call us on 0333 300 3470
Email us at sales@cqegroup.com
www.cqegroup.com

