



. ' & TFSJFT TXBTI QMBUF BYJB
NPUPS JT B LJOE PG æYFE EJTQM

5FDIOJDBM %BUB



5ZQF JOUSPEVDUJPO

5ISFBE DPOOFDUJPO UZQF FYDFQU JOMFU BOE UISFBE UZQF PG

	1PSU UZQFav. ' \$PEF										
	6/\$ QPSU *40			CE		CE		CE	CE	CE	CE "
	.FUSJD QPSU *40					CE		CE	CE	CE	.

5ISFBE UZQF PG 'MBOHF 1PSU

*OQVU 4IBGU



5ZQF JOUSPEVDUJPO

.PVOUJOH æBOHF

.PVOUJOH æBOHFæ . '												
4" & +				æ		æ		æ	æ			
4" & +										æ		
4" & +		æ										
4QFDJBM)PMFæ æ			æ									
.PVOUJOH æBOHF . ' &												
4QFDJBM)PMFæ æ			æ			æ						
4QFDJBM)PMFæ æ				æ								

\$ P

-

-

-

-

\$ F

-

-

'MVTIJOH æ)PXæw - NJOæx

4UBOEBS WFSTJPO	
8JUI æVTI WBMæ0OMZ . ' n	'MVTIJOH æ)PX \$PEF 'MVTIJOH æ)PX \$PEF
4QFDJBM . ' & n	" (0QFOJOH
WFSTJPO . ' n	#) QSFTTVSF
. ' n	\$ * EJæFSFOUJBM
. ' n	% + QSFTTVSF
. ' æ	& , p1 CBS
. ' æ	'

CBS

BM

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

Q

4QFFE TFOTPS

8JU IPVU TQFFE TFOTPS	
8JUI TQFFE TFOTPS TVQQMZ WPMUBHF _ 7%\$	
8JUI TQFFE TFOTPS TVQQMZ WPMUBHF _ 7%\$	
*OTUBMMBUJPO PG SFTFSWFE TQFFE TFOTPS	

/PUF æ ð POMZ UIF . ' & JT BWBJMBCMF

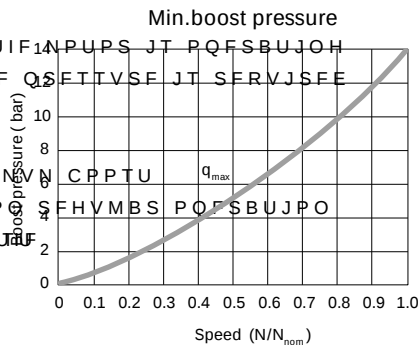
1MFBTF SFGFS UP QBHF GPS TQFDJæD QBSBNFUFST PG U

3FNBSLæ "WBJMBCMFæ ç 00 SFRVFTU

.JO CPPTU QSFTTVSF

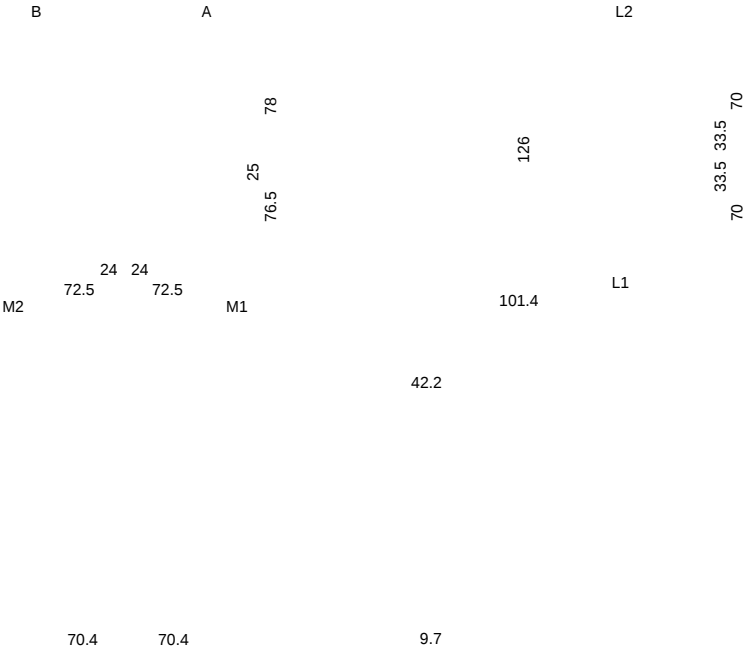
5P QSFWFOU DBWJUBUJPO XIFO UIF ANPUPS JT PQFSBUJ OH
 JO B QVNQJOH NPEF B QPTJUJWF QSFTTVSF JT SFRVJSFE
 BU UIF TVDUJPO QPSU

5IF QHVVSF BCPWF TIPXT UIF NJOJMVN CPPTU
 QSFTTVSF SFRVJSFNFOU CBTFE PQFSBUJPO
 *O DBTF PG B SBQJPE DIBOLSF REPULF
 QSFTTVSF NVTU CF BQQMJFE



*OTUBMMBUJPO TJ[F

. ' *OTUBMMBUJPO TJ[F



*OMFU	QPSU 0	VUMFU QPSU	3PUBUJPO EJSFUDUJPO
"	#	\$MPDLXJTF	
#	"	"OUJ DMPDLXJTF	

/PUF 5IF SPUBUJPO EJSFUDUJPO JT MPPLFE GSPN
UIF TIBGU FOE

*OTUBMMBUJPO TJ[F

v%SBJO QPSU QSFTTVSF NFBTVSJOH QPSU JOMFU QP

1BSBMMFM QJQJOH UISFBE UZQF \$PEF (

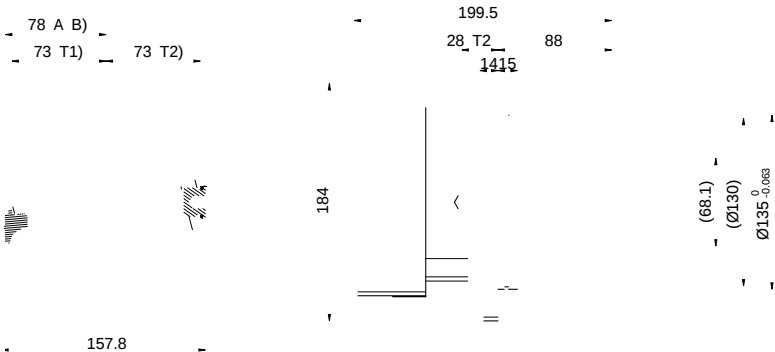
	4ZNCPM	1PSU TJ[F BOE EFTDSJQUJPO
B C	*OMFU BOE PVUMFU QPSU	(
5	%SBJO QPSU	(

"/4* UISFBE UZQF \$PEF "

	4ZNCPM	1PSU TJ[F BOE EFTDSJQUJPO
B C	*OMFU BOE PVUMFU QPSU	6/ #
. .	1SFTTVSF NFBTVSJOH QPSU	6/' #
5	%SBJO QPSU	6/' #

*OTUBMMBUJPO TJ[F

. ' & *OTUBMMBUJPO TJ[F



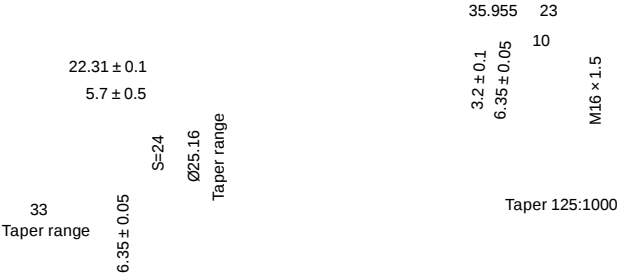
\$POUSPM BOE 'MPX		0JM EJSFDUJPO	
		0JM QPSU "	0JM QPSU #
3PUBUJPO EJSFDUJPO	\$MPDLXJTF SPUVUJPO	0VU	*OMFU
\$PVOUFS	DMPDLXJTF SPUVUJPO	*OMFU	0VU

*OTUBMMBUJPO TJ[F

v. ' & 1PSU EFUBJMT

	1PSU OBNF	1PSU TJ[F BOE EFTDSJQUJPO
" #	*OMFU QPSU BOE	%FMJWFSZ QPSU 4" & + Ü.
5* 5	\$BTf ESBJO	QPSU *40 6/' #

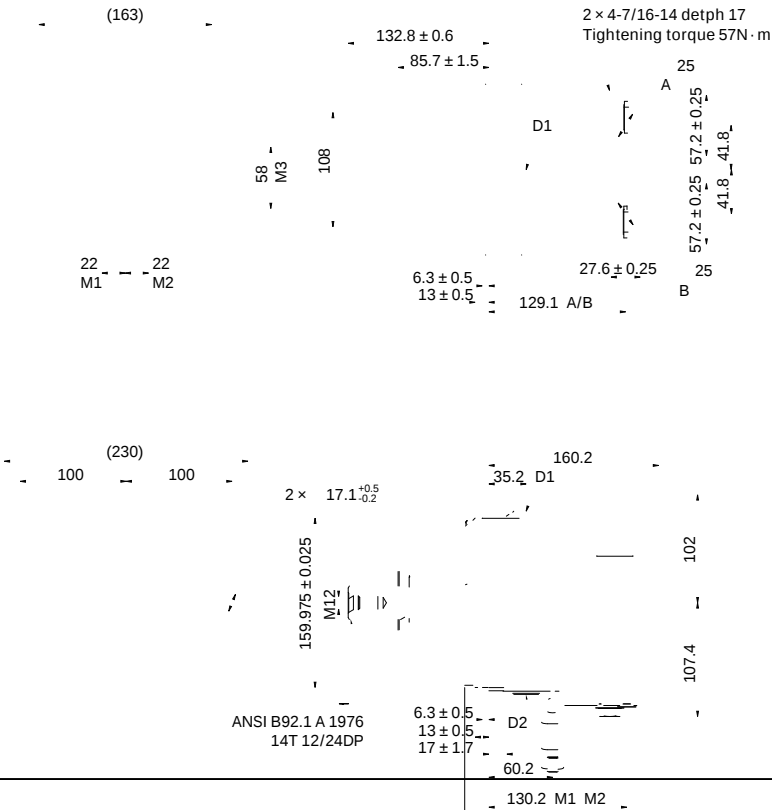
v . ' & *OQVU TIBGU UZQF



ö³ %ö´ UZQF TIBGU

*OTUBMMBUJPO TJ[F

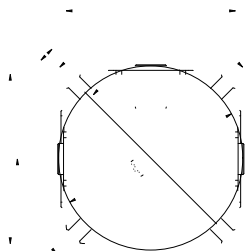
. ' & *OTUBMMBUJPO TJ[F



\$POUSPM BOE 'MPX		0JM EJSF DUJPO	
		0JM QPSU "	0JM QPSU #
3PUBUJPO EJSF DUJPO	\$MPDLXJTF SPUVUJPO	0VU	*OMFU
\$PVOUFS DMPDLXJTF SPUVUJPO		*OMFU	0VU

*OTUBMMBUJPO TJ[F

. ' *OTUBMMBUJPO TJ[F

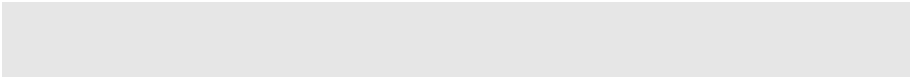


*OTUBMMBUJPO TJ[F
v%SBJO QPSU BOE HBVHF QPSU
1BSBMMFM QJQJOH UISFBE UZQF \$PEF (

.FUSJD UISFBE UZQF \$PEF .

"/4* UISFBE UZQF \$PEF "

v1PSU EFUBJMT



\$POUSPM BOE 'MPX		0JM EJSFDUJPO	
		0JM QPSU "	0JM QPSU #
3PUBUJPO	EJSFDUJPO	\$MPDLXJTFS	SPUVUJPO
		0VU	*OMFU
	\$PVOUFS	DMPDLXJTFS	SPUVUJPO
			*OMFU
			0VU

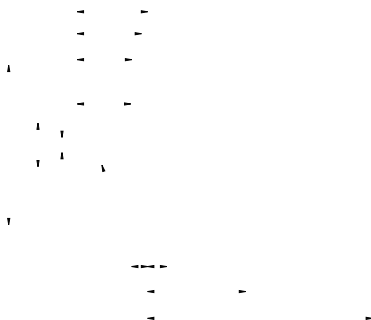
*OTUBMMBUJPO TJ[F

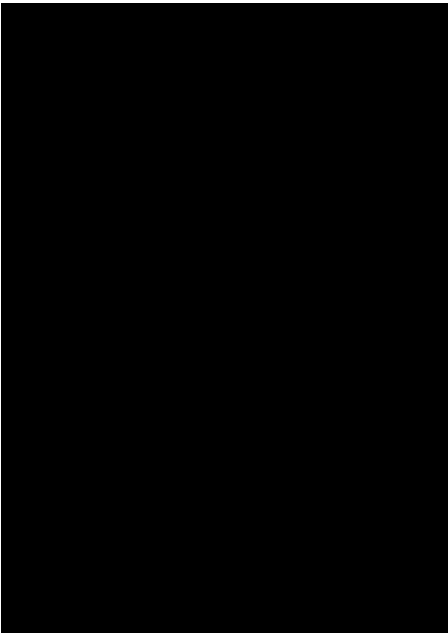
v. '& 1PSU EFUBJMT

	1PSU OBNF	1PSU TJ[F BOE	EFTDSJQUJPO
" #	*OMFU QPSU BOE	%FMJWFSZ QPSU	4"& + Ü.
5* 5	\$BTF ESBJO	QPSU	*40 6/' #

v . '& *OQVU TIBGU UZQF

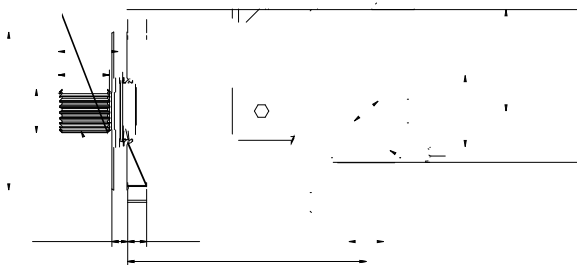
ö³%ö´UZQF TIBGU





*OTUBMMBUJPO TJ[F

. ' *OTUBMMBUJPO TJ[F

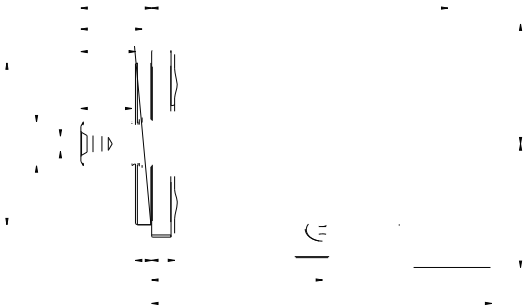


* OTUBMMBUJPO TJ[F
v %SBJO QPSU BOE HBVHF QPSU



*OTUBMMBUJPO TJ[F

. ' *OTUBMMBUJPO TJ[F XPSLJOH QPSUT " BOE # BU C



*OMFU	QPSU 0	VUMFU QPSU 3	PUBUJPO EJSFDUJPO
"	#	\$	MPDLXJTF
#	"	"	OUJ DMPDLXJTF

/PUF 5IF SPUBUJPO EJSFDUJPO JT MPPLFE
GSPN UIF TIBGU FOE

*OTUBMMBUJPO TJ[F

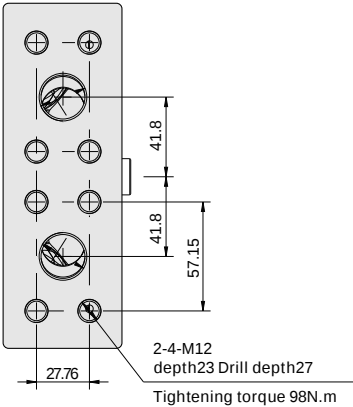
v %SBJO QPSU BOE HBVHF QPSU

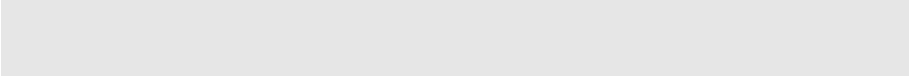
N_r_llel piping thre_d twpe & Aode 8 E '

Metri a thre_d twpe & Aode 8 M '

?NQ& thre_d twpe & Aode 8 ?'

¶Nort det_il q





*OTUBMMBUJPO TJ[F

v% SBJO QPSU BOE HBVHF QPSU

"/4* UISFBE UZQF \$PEF "

