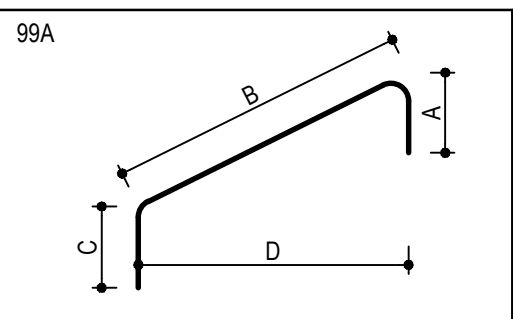


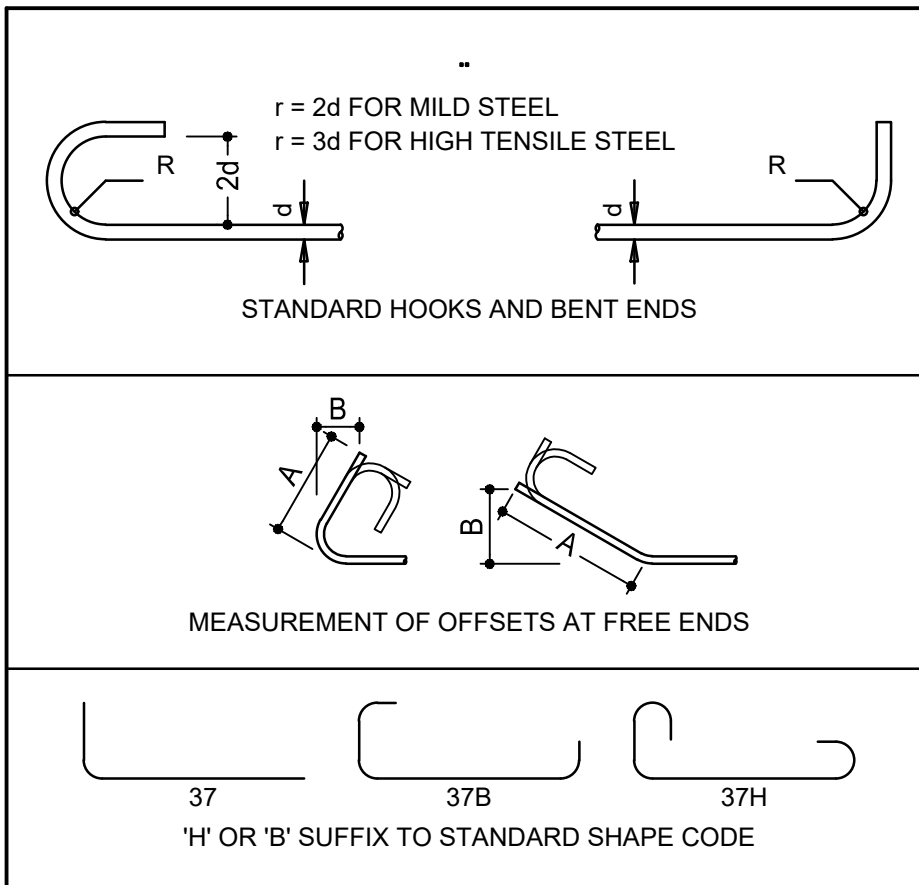
MEMBER	BAR MARK	TYPE AND SIZE	No. OF MEMBERS	No. PER MEMBER	TOTAL	CUT LENGTH mm	SHAPE CODE	A	B	C	D	E/R
PUMP SUMP STRUCTURE	101	2	Y12	44	88	3800	38	1400	140	2320		
	102		Y12	44	88	3800	38	1400	110	2350		
	103		Y12	77	154	1550	37	170	1410			
	104		Y12	77	154	2100	37	180	1950			
	105a		Y12	2	4	1600	37	190	1440			
	105b		Y12	2	4	1500	37	170	1360			
	105c		Y12	2	4	1550	37	170	1410			
	106		Y12	77	154	5200	37	130	5100			
	107		Y12	77	154	4650	37	130	4550			
	108a		Y12	2	4	4300	37	130	4200			
	108b		Y12	2	4	4200	37	130	4100			
	108c		Y12	2	4	4250	37	130	4150			
	109		Y12	16	32	1000	20	1000				
	110		Y12	75	150	1550	37	570	1010			
	111		Y12	75	150	3200	37	560	2670			
	112		Y12	75	150	2800	37	170	2660			
	113		Y12	75	150	1150	37	170	1010			
	114a		Y12	2	4	2200	37	570	1660			
	114b		Y12	2	4	2150	37	590	1590			
	114c		Y12	2	4	2200	37	590	1640			
	115a		Y12	2	4	1700	37	570	1160			
	115b		Y12	2	4	1650	37	590	1090			
	115c		Y12	2	4	1700	37	590	1140			
	116		Y12	156	312	3800	38	1400	140	2320		
	117		R10	112	224	400	38	150	140	150		

MEMBER	BAR MARK	TYPE AND SIZE	No. OF MEMBERS	No. PER MEMBER	TOTAL	CUT LENGTH mm	SHAPE CODE	A	B	C	D	E/R
INTAKE STRUCTURE	201	2	Y12	16	32	2650	73	940	240	700		
	202		Y12	6	12	3150	38	550	2110	550		
	203		Y12	6	12	2450	38	200	2110	200		
	204		Y12	62	124	2600	73	920	240	690		
	205		Y12	12	24	5100	38	530	4430	200		
	206		Y12	12	24	4800	54	200	4430	230		
	207		Y12	32	64	5100	38	1770	140	3250		
	208		Y12	62	124	2750	38	970	110	1730		
	209a		Y12	4	8	1250	37	500	790			
	209b		Y12	4	8	1350	37	500	865			
	209c		Y12	4	8	1400	37	500	940			
	209d		Y12	4	8	1500	37	500	1015			
	209e		Y12	4	8	1550	37	500	1090			
	209f		Y12	4	8	1650	37	500	1165			
	209g		Y12	4	8	1700	37	500	1240			
	209h		Y12	4	8	1800	37	500	1315			
	209i		Y12	4	8	1850	37	500	1390			
	209j		Y12	4	8	1950	37	500	1465			
	209k		Y12	4	8	2000	37	500	1540			
	209l		Y12	4	8	2100	37	500	1615			
	209m		Y12	4	8	2150	37	500	1690			
	209n		Y12	4	8	2250	37	500	1765			
	209o		Y12	4	8	2300	37	500	1840			
	210		Y12	32	64	1050	38	500	110	500		
	211		Y12	16	32	2350	38	130	2140	140		
	212a		Y12	4	8	550	37	140	440			

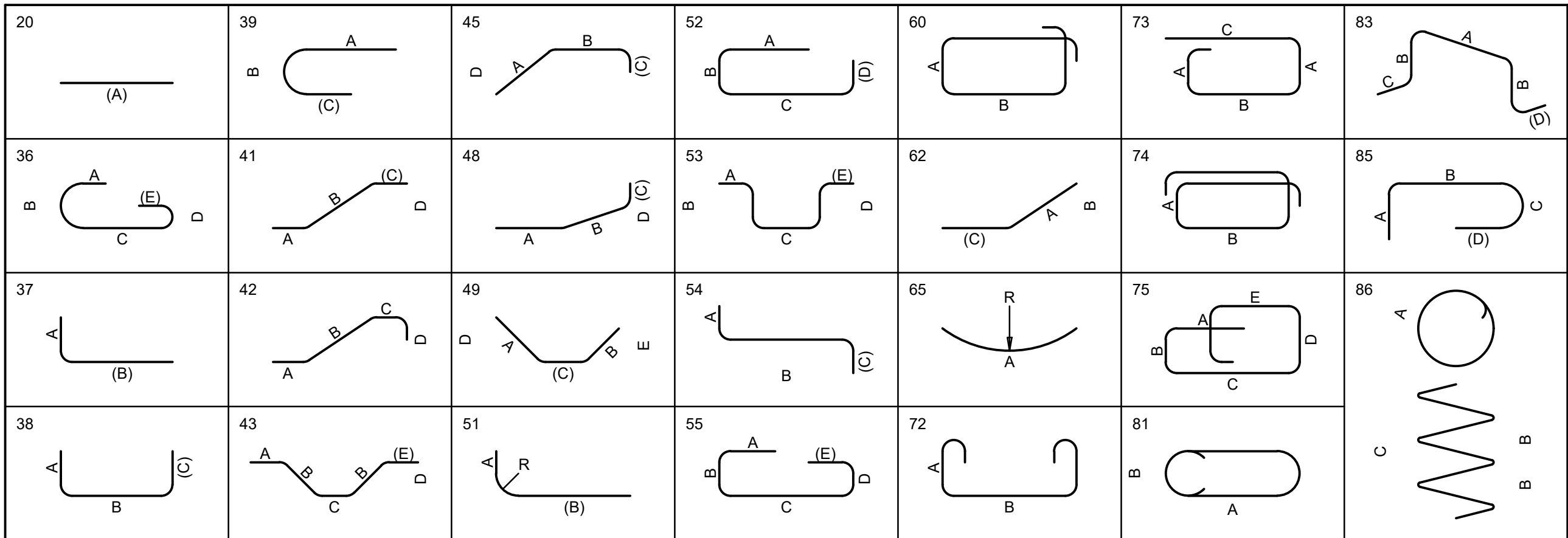
MEMBER	BAR MARK	TYPE AND SIZE	No. OF MEMBERS	No. PER MEMBER	TOTAL	CUT LENGTH mm	SHAPE CODE	A	B	C	D	E/R
INTAKE STRUCTURE	212b	2	Y12	4	8	850	37	140	740			
	212c		Y12	4	8	1150	37	140	1040			
	212d		Y12	4	8	1450	37	140	1340			
	212e		Y12	4	8	1750	37	140	1640			
	212f		Y12	4	8	2050	37	140	1940			
	213		Y12	4	8	3050	209	370	2360	380	2115	
	214		Y12	47	94	1550	37	170	1410			
	215		Y12	47	94	2100	37	180	1950			
	216		Y12	8	16	900	37	190	740			
	217a		Y12	2	4	600	37	190	440			
	217b		Y12	2	4	550	37	170	410			
	217c		Y12	2	4	650	37	190	490			
	218		Y12	47	94	4150	37	130	4050			
	219		Y12	47	94	3600	37	130	3500			
	220		Y12	8	16	3600	37	130	3500			
	221a		Y12	2	4	4200	37	130	4100			
	221b		Y12	2	4	4150	37	130	4050			
	221c		Y12	2	4	4200	37	130	4100			
	222		Y12	16	32	1200	20	1200				
	223		Y12	16	32	1000	20	1000				
	224		Y12	57	114	1500	37	570	960			
	225		Y12	57	114	2250	37	560	1720			
	226		Y12	57	114	1900	37	200	1730			
	227		Y12	57	114	1100	37	170	960			
	228		Y12	128	256	2750	38	950	140	1720		
	229		Y12	16	32	1200	37	490	740			

MEMBER	BAR MARK	TYPE AND SIZE	No. OF MEMBERS	No. PER MEMBER	TOTAL	CUT LENGTH mm	SHAPE CODE	A	B	C	D	E/R
INTAKE STRUCTURE	230a	2	Y12	2	4	1150	37	570	610			
	230b		Y12	2	4	1100	37	530	600			
	230c		Y12	2	4	1250	37	560	720			
	231a		Y12	2	4	1650	37	570	1110			
	231b		Y12	2	4	1600	37	530	1100			
	231c		Y12	2	4	1750	37	560	1220			
	232		R10	60	120	400	38	150	140	150		

SUMMARY									
MILD STEEL									
DIAMETER	R08	R10	R12	R16	R20	R25	R32	R40	
LENGTHS	m	-	138	-	-	-	-	-	-
TOTAL LENGTH	m				138				
MASS	kg	-	86	-	-	-	-	-	-
TOTAL MASS	kg				86				
HIGH TENSILE STEEL									
DIAMETER	Y08	Y10	Y12	Y16	Y20	Y25	Y32	Y40	
LENGTHS	m	-	-	10058	-	-	-	-	-
TOTAL LENGTHS	m			10058					
MASS	kg	-	-	8932	-	-	-	-	-
TOTAL MASS	kg			8932					
99 SHAPE CODES									
									



- BEND TO 20 RADIUS FOR MILD STEEL BARS AND 3d RADIUS OR 7.5d IF SHAPE CODE IS FOLLOWED BY SUFFIX 'S' FOR HIGH TENSILE STEEL BARS UNLESS LARGER RADI ARE INDICATED FOR THE PARTICULAR SHAPE CODE.
- STEEL TO COMPLY WITH SANS 282. MILD STEEL BARS SHALL BE PLAIN AND HIGH TENSILE STEEL BARS DEFORMED.
- MILD STEEL BARS ARE IDENTIFIED BY A CAPITAL 'R' AND HIGH TENSILE STEEL BARS BY A CAPITAL 'Y' PREFIXED TO THE DIAMETER IN mm.
- BENDING DIMENSIONS SHALL BE IN ACCORDANCE WITH SANS 282 (2011), EXCEPT AS SHOWN OTHERWISE ON THIS SHEET. WELDING OF BARS IS INDICATED BY 'W' AND LAPING BY 'LAPING'.
- ALL BARS SHALL BE BENT COLD. WELDING SHALL NOT BE PERMITTED FOR HIGH TENSILE STEEL BARS.
- WELDING OF MILD STEEL BARS SHALL BE IN ACCORDANCE WITH SABS 044 AND BS 1555 OR BS 593.
- ALL DIMENSIONS GIVEN ON SHAPE CODES ARE EXTERNAL EXCEPT FOR OFFSETS OF FREE ENDS (SEE SKETCH ABOVE).
- THE CUTTING LENGTH TOLERANCE IS TAKEN UP IN THE BRACKETED DIMENSIONS OR IN HOOKS OR BENT ENDS WHERE PRESENT.
- SUFFIX 'Y' OR 'S' TO A STANDARD SHAPE CODE INDICATES THE ADDITION OF TWO HOOKS OR BENT ENDS TO THE FREE ENDS OF THE STANDARD SHAPE. THEY ARE BENT IN THE SAME DIRECTION AS THE ADJACENT BEND OR CURVE. THE DIMENSIONS IN BRACKETS ARE GIVEN IN THIS CASE.



**DISCLAIMER**  
This drawing was prepared by Knight Piesold Consulting (Pty) Ltd based on the best information available at the time of preparation. During construction site conditions, or site conditions, or site development, may possibly dictate that amendments of adaptations be made to certain details on the drawing. Strict compliance with the project specifications is also essential. Knight Piesold Consulting (Pty) Ltd will therefore not accept liability for any losses, damages or consequential losses, suffered by any party resulting from the use or implementation of the contents of this drawing, if executed or amended without fulltime supervision by Knight Piesold Consulting (Pty) Ltd.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22							
1. BIDDING ISSUED FOR CONSTRUCTION										MM	TM	JRW	REFERENCE DRAWINGS															
D.O. REV. DATE										REV. CHECKED BY APP. AUTH. KKS																		
AUTHORISED FOR ESKOM BY: CLASSIFICATION										PES PATH																		
COORDINATION BY:										APPROVED BY:																		
APPROVED BY: JR WILLIAMSON										CHANGED BY: T. MOKOMA																		
CREATED BY: MK MPHOLE										CREATED BY: ESKOM HOLDINGS SOC. LIM																		
SCALE: AS SHOWN										REV. NO. 3002/010037/20																		
										0.58/61414										REV 1	REV 1							
										32										32	32							

FOR CONSTRUCTION