SIMBA
PIPE INDUSTRIES LTD

Pipes for Life



ISO 9001 : 2015 Certified

www.spil.co.tz

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ABOUT US

Simba Pipe Industries Ltd. (SPIL) is one of the leading manufacturer and supplier of infrastructure piping systems in Tanzania. We at SPIL specialize in manufacturing and supplying HDPE, uPVC and PPR pipes and their accessories.

SPIL is a local Tanzanian company, with a presence in the market for over 5 decades enabling it to become one of the strongest brands in the plastic piping segment.

We produce HDPE & uPVC pressure pipes for all its possible applications including, water supply & distribution, Distribution Gas, Irrigation network Telecommunication ducts, Borehole Casings & Screens, many other Mining & industrial application

Our pipes are manufactured in accordance to international standards: ISO 4427 for HDPE pipes meant for water application ISO 4437 for PE-100 orange pipes meant for gas application & ISO 1452 for uPVC pressure pipes meant for water application.

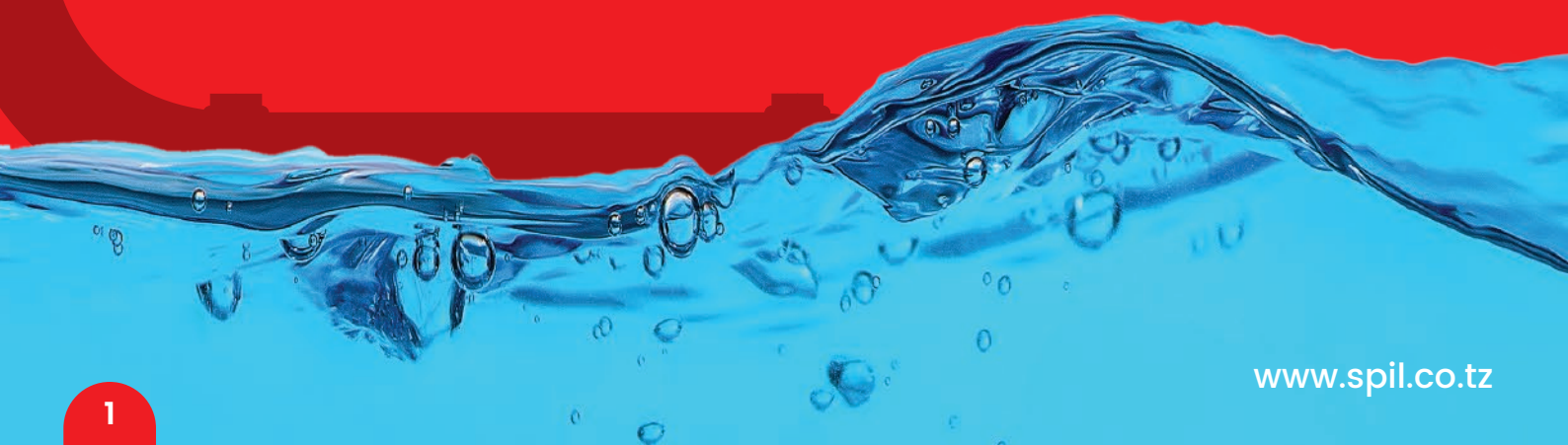
SPIL production plant is an ISO 9001:2015 certified facility ,with an ever evolving quality management system in place to ensure only quality products are produced and supplied to our end users in addition our products are also certified by Tanzania Bureau of Standards.

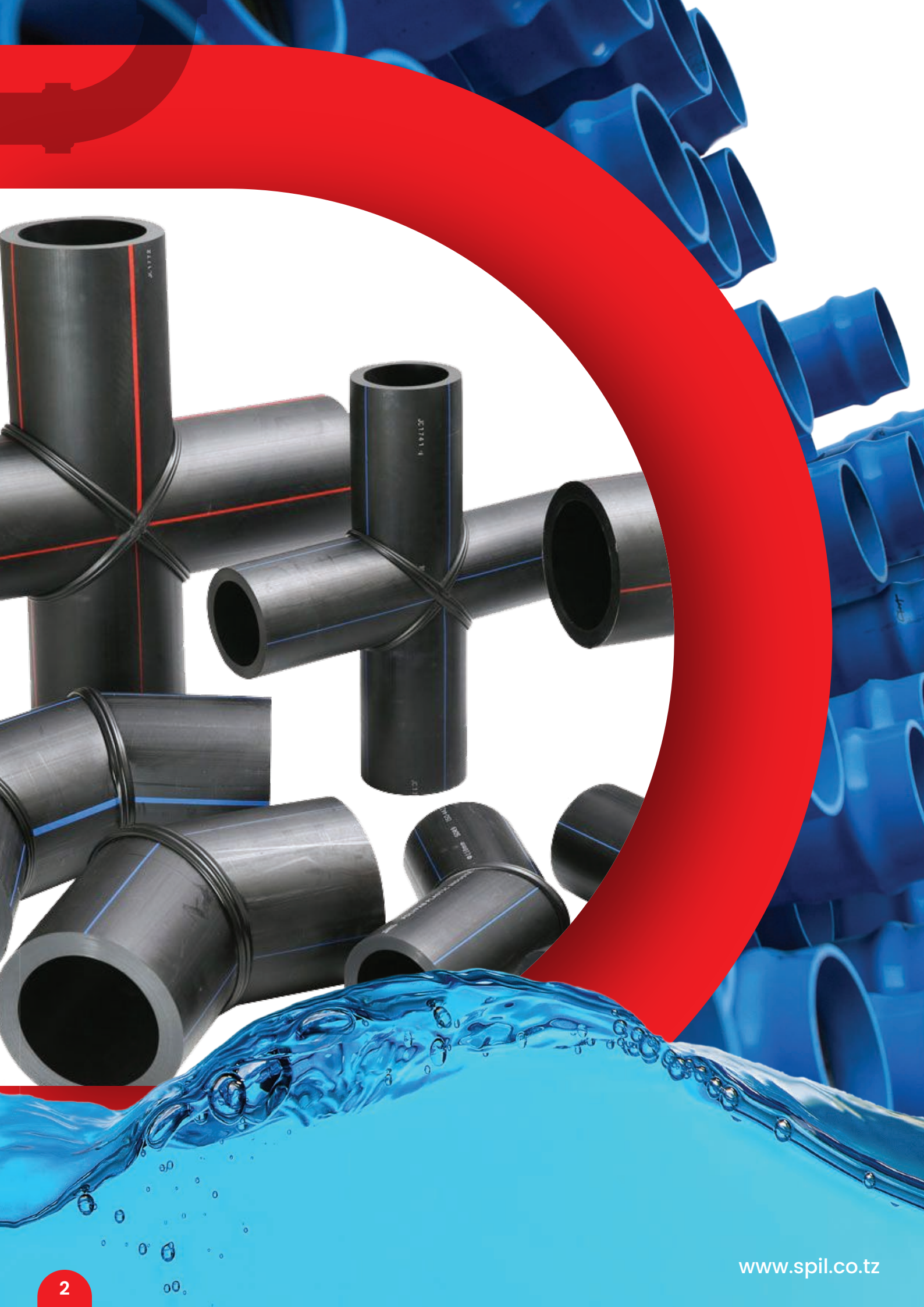
The Confederation of Tanzanian Industries (CTI) has recognized our efforts by awarding us the prestigious “Presidents Manufacturer of the Year Award (PMAYA)" in the medium scale category for plastics and rubber products for various years in the past decade.

SPIL products have been tested and approved by Ministry of Water (MOW), government of Tanzania for use in the water projects undertaken by the government. Our products are approved and certified by all the leading design and resident consultants of various infrastructure piping projects in East African region.

SPIL is also successfully supplying to almost all the major mines in Tanzania including; Bulyanhulu Gold Mine, Geita Gold Mine, Buzwagi (kahama) Mine, North Mara Gold Mine, Resolute mine etc.

Today, SPIL is a regional player in East Africa, supplying piping material to contractors, government bodies and all the major Mining & Gas companies for their various infrastructure projects.





MISSION

To be the leading solution provider for piping systems in East Africa by providing high quality products which cater to the needs to Water Mains, Reticulation, Sewerage, Gas Transportation, Telecommunications and Electrical Conduits.

VISION

Our vision is to be a leader in our business by delivering quality products and services through continuous innovation without compromising our Core Values of Trust, Integrity, Passion and Excellence.

We will achieve this through our committed and capable team, always stretching our perceived limits.

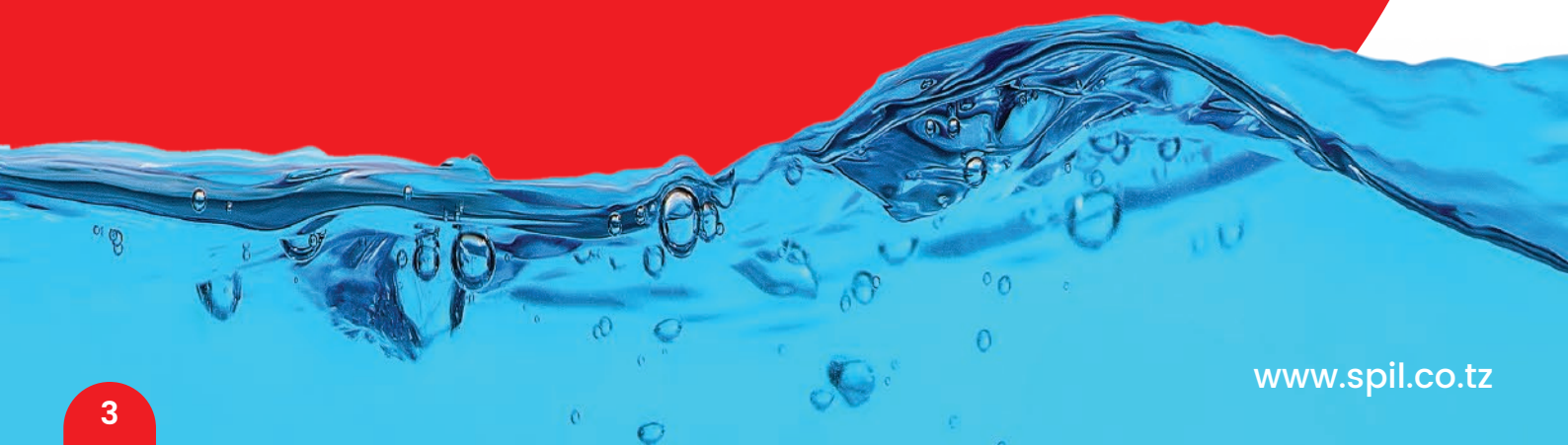
QUALITY POLICY

The quality policy of Simba Pipe Industries Ltd is to provide quality plastic products & services that consistently meet and exceed expectations of its customers and applicable statutory and regulatory requirements.

These aims will be achieved through effective implementation of a management system compliant with ISO 9001:2015.

The management systems and its risk based approach will be applied to every subsystem of the organization and will be systematically reviewed through internal audits and management review meetings to identify opportunities to improve effectiveness and enhancing customer as well as organizational satisfaction.

This policy is promoted and implemented within Simba Pipe Industries Ltd through its documented quality management system and training of its staff in the implementation process.





HDPE PIPES

- High Density Polyethylene (HDPE) Pipes are produced in Outer Diameters (OD) ranging from 14mm to 630mm using a completely virgin PE 100 material.
- A variety of HDPE fittings are also fabricated in house. i.e Bends, Tees, Crosses, Cyclone Bends etc.
- Pressure Classes: PN 6 to PN 25
- Products manufactured and tested as per ISO 4427
- Major Applications: Water mains and reticulation systems, Sewerage and drainage network, Irrigation and Mining applications etc.



ISO 4427: HDPE PIPES SPECIFICATIONS

	Pipe Series									
	SDR 6	SDR 7.4	SDR 9	SDR 11	SDR 13.6	SDR 17	SDR 21	SDR 26	SDR 33	SDR 41
	S 2.5	S 3.2	S 4	S 5	S 6.3	S 8	S 10	S 12.5	S 16	S 20
	Nominal Pressure (PN) bar									
PE 100	-	PN 25	PN 20	PN 16	PN 12.5	PN 10	PN 8	PN 6	PN 5	PN 4
Nominal Size	Wall Thicknesses[b] mm									
	e_{min}	e_{min}	e_{min}	e_{min}	e_{min}	e_{min}	e_{min}	e_{min}	e_{min}	e_{min}
16	3.0	2.3[a]	2.0[a]	-	-	-	-	-	-	-
20	3.4	3.0	2.3[a]	2.0[a]	-	-	-	-	-	-
25	4.2	3.5	3.0	2.3[a]	2.0[a]	-	-	-	-	-
32	5.4	4.4	3.6	3.0	2.4[a]	2.0[a]	-	-	-	-
40	6.7	5.5	4.5	3.7	3.0	2.4[a]	2.0[a]	-	-	-
50	8.3	6.9	5.6	4.6	3.7	3.0	2.4[a]	2.0[a]	-	-
63	10.5	8.6	7.1	5.8	4.7	3.8	3.0	2.5[a]	-	-
75	12.5	10.3	8.4	6.8	5.6	4.5	3.6	2.9[a]	-	-
90	15.0	12.3	10.1	8.2	6.7	5.4	4.3	3.5	-	-
110	18.3	15.1	12.3	10.0	8.1	6.6	5.3	4.2	-	-
125	20.8	17.1	14.0	11.4	9.2	7.4	6.0	4.8	-	-
140	23.3	19.2	15.7	12.7	10.3	8.3	6.7	5.4	-	-
160	26.6	21.9	17.9	14.6	11.8	9.5	7.7	6.2	-	-
180	29.9	24.6	20.1	16.4	13.3	10.7	8.6	6.9	-	-
200	33.2	27.4	22.4	18.2	14.7	11.9	9.6	7.7	-	-
225	37.4	30.8	25.2	20.5	16.6	13.4	10.8	8.6	-	-
250	41.5	34.2	27.9	22.7	18.4	14.8	11.9	9.6	-	-
280	46.5	38.3	31.3	25.4	20.6	16.6	13.4	10.7	-	-
315	52.3	43.1	35.2	28.6	23.2	18.7	15.0	12.1	9.7	7.7
355	59.0	48.5	39.7	32.2	26.1	21.1	16.9	13.6	10.9	8.7
400	-	54.7	44.7	36.3	29.4	23.7	19.1	15.3	12.3	9.8
450	-	61.5	50.3	40.9	33.1	26.7	21.5	17.2	13.8	11.0
500	-	-	55.8	45.4	36.8	29.7	23.9	19.1	15.3	12.3
560	-	-	62.5	50.8	41.2	33.2	26.7	21.4	17.2	13.7
630	-	-	70.3	57.2	46.3	37.4	30.0	24.1	19.3	15.4

Note 1: bar = 0.1 MPa = 10^5 Pa; 1 MPa = 1 N/mm^2
Note 2: PN values are based on C = 1.25.
a For practical reasons. A minimum wall thickness of 3.0mm is recommended for electrofusion jointing and jointing butt fusion fittings and for lining applications

uPVC PRESSURE PIPES

- Un-Plasticized Poly Vinyl Chloride (uPVC) Pipes are produced in Outer Diameters (OD) ranging from 25mm to 450mm.
- A variety of PVC fittings are also covered under our traded portfolio
- Pressure Classes: Ranging from PN 6 to PN 25
- Products manufactured and tested as per ISO 1452 -2
- Major Applications: Water mains and reticulation systems, Sewerage and drainage network, Irrigation and Mining applications etc.



ISO 1452: UPVC PRESSURE PIPES SPECIFICATION

Nominal outside diameter. D_n	Pipe Series S						
	Nominal (minimum) wall thickness						
	S 20 (SDR 41)	S 16 (SDR 33)	S 12.5 (SDR 26)	S 10 (SDR 21)	S 8 (SDR 17)	S 6.3 (SDR 13.6)	S 5 (SDR 11)
	Nominal pressure PN based on design coefficient C = 2.5						
		PN 6	PN 8	PN 10	PN 12.5	PN 16	PN 20
20		-	-	-	-	1.5	1.9
25		-	-	-	1.5	1.9	2.3
32		-	1.5	1.6	1.9	2.4	2.9
40		1.5	1.6	1.9	2.4	3.0	3.7
50		1.6	2.0	2.4	3.0	3.7	4.6
63		2.0	2.5	3.0	3.8	4.7	5.8
75		2.3	2.9	3.6	4.5	5.6	6.8
90		2.8	3.5	4.3	5.4	6.7	8.2
	Nominal pressure PN based on design coefficient C = 2.0						
	PN 6	PN 8	PN 10	PN 12.5	PN 16	PN 20	PN 25
110	2.7	3.4	4.2	5.3	6.6	8.1	10.0
125	3.1	3.9	4.8	6.0	7.4	9.2	11.4
140	3.5	4.3	5.4	6.7	8.3	10.3	12.7
160	4.0	4.9	6.2	7.7	9.5	11.8	14.6
180	4.4	5.5	6.9	8.6	10.7	13.3	16.4
200	4.9	6.2	7.7	9.6	11.9	14.7	18.2
225	5.5	6.9	8.6	10.8	13.4	16.6	-
250	6.2	7.7	9.6	11.9	14.8	18.4	-
280	6.9	8.6	10.7	13.4	16.6	20.6	-
315	7.7	9.7	12.1	15.0	18.7	23.2	-
355	8.7	10.9	13.6	16.9	21.1	26.1	-
400	9.8	12.3	15.3	19.1	23.7	29.4	-
450	11.0	13.8	17.2	21.5	26.7	33.1	-

PE-100 GAS PIPES AND FITTINGS

- PE-100 GAS Pipes are produced in Outer Diameters (OD) ranging from 25mm to 630mm
- Pressure Classes: Ranging from: SDR 11, SDR 13.6 , SDR 17 , SDR 21 and SDR 26
- PE-100 Electrofusion and Butt weld fittings for Natural gas pipelines
- Manufactured and Tested as per ISO 4437
- Major Application: Natural Gas distribution networks



PE 100 GAS PIPES SPECIFICATION

Nominal outside diameter. d_n	Minimum wall thickness e_{min} (mm)						
	SDR 9	SDR 11	SDR 13.6	SDR 17	SDR 17.6	SDR 21	SDR 26
20	3.0	2.3	-	-	-	-	-
25	3.0	2.3	2.0	-	-	-	-
32	3.6	3.0	2.4	2.0	2.0	-	-
40	4.5	3.7	3.0	2.4	2.3	2.0	-
50	5.6	4.6	3.7	3.0	2.9	2.4	2.0
63	7.1	5.8	4.7	3.8	3.6	3.0	2.5
75	8.4	6.8	5.6	4.5	4.3	3.6	2.9
90	10.1	8.2	6.7	5.4	5.2	4.3	3.5
110	12.3	10.0	8.1	6.6	6.3	5.3	4.2
125	14.0	11.4	9.2	7.4	7.1	6.0	4.8
140	15.7	12.7	10.3	8.3	8.0	6.7	5.4
160	17.9	14.6	11.8	9.5	9.1	7.7	6.2
180	20.1	16.4	13.3	10.7	10.3	8.6	6.9
200	22.4	18.2	14.7	11.9	11.4	9.6	7.7
225	25.2	20.5	16.6	13.4	12.8	10.8	8.6
250	27.9	22.7	18.4	14.8	14.2	11.9	9.6
280	31.3	25.4	20.6	16.6	15.9	13.4	10.7
315	35.2	28.6	23.2	18.7	17.9	15.0	12.1
355	39.7	32.2	26.1	21.1	20.2	16.9	13.6
400	44.7	36.4	29.4	23.7	22.8	19.1	15.3
450	50.3	40.9	33.1	26.7	25.6	21.5	17.2
500	55.8	45.5	36.8	29.7	28.4	23.9	19.1
560	-	50.9	41.2	33.2	31.9	26.7	21.4
630	-	57.3	46.3	37.4	35.8	30.0	24.1

- $^{e}min = {}^{e}n$
- Minimum wall thickness greater than limits of 2.3mm, 2.4mm, 2.9mm may be imposed for practical reasons.

uPVC BOREHOLE CASING AND SCREEN

- uPVC Borehole casing and screen pipes are produced in Outer Diameters (OD) ranging from 90mm to 450mm
- Threads used are TRAPEZODIAL, which ensures the high integrity of Male/ Female Joints.



UPVC BOREHOLE CASING AND SCREEN PIPE SPECIFICATIONS

- uPVC Borehole casing and screen pipes are produced in Outer Diameter (OD) ranging from 90mm to 450mm
- Threads used are TRAPEZODIAL, which ensures the high integrity of Male/ Female Joints.

Pipe Description	Pipe Size			WT	THREAD	ROWS	TOTAL	SLOT	THREAD
	OD (MM)	W.T.	BORE	KGS	TYPE	SLOTS	SLOTS	WIDTH	LENGTH
CASING	90	5.8	78.4	6.87474	TRAPEZOIDAL				60
SCREEN	90	5.8	78.4	6.87474	TRAPEZOIDAL	3	1092	0.8	60
CASING	110	5.8	98.4	8.40246	TRAPEZOIDAL				62
SCREEN	110	5.8	98.4	8.40246	TRAPEZOIDAL	4	1456	0.8	62
CASING	125	6.4	112.2	10.536	TRAPEZOIDAL				64
SCREEN	125	6.4	112.2	10.536	TRAPEZOIDAL	4	1456	0.8	64
CASING	140	7.1	125.8	13.091	TRAPEZOIDAL				67
SCREEN	140	7.1	125.8	13.091	TRAPEZOIDAL	4	1456	0.8	67
CASING	165	8.1	148.8	17.6017	TRAPEZOIDAL				72
SCREEN	165	8.1	148.8	17.6017	TRAPEZOIDAL	5	1820	0.8	72
CASING	200	10.1	179.8	26.6034	TRAPEZOIDAL				115
SCREEN	200	10.1	179.8	26.6034	TRAPEZOIDAL	5	1820	1.5	115
CASING	225	11.4	202.2	33.7811	TRAPEZOIDAL				115
SCREEN	225	11.4	202.2	33.7811	TRAPEZOIDAL	6	2184	1.5	115
CASING	250	12.5	225.0	41.1563	TRAPEZOIDAL				115
SCREEN	250	12.5	225.0	41.1563	TRAPEZOIDAL	8	2912	1.5	115
CASING	280	14.1	251.8	51.9952	TRAPEZOIDAL				115
SCREEN	280	14.1	251.8	51.9952	TRAPEZOIDAL	8	2912	1.5	115
CASING	315	15.7	283.6	65.1322	TRAPEZOIDAL				120
SCREEN	315	15.7	283.6	65.1322	TRAPEZOIDAL	8	29'12	1.5	120

FABRICATED FITTINGS AND ONSITE INSTALLATION SERVICES

FABRICATED FITTINGS

- SPIL also specializes in manufacturing custom HDPE fittings for large bore HDPE pipes like Tees, Elbows, Cyclone J Bends, Flanged pipes, etc. as well as custom requirement
- Pressure classes range from PN 10 up to PN 25





ON SITE SERVICES

- Our team of highly qualified, experienced and dedicated professionals can assist in the site installation services of our pipes and fittings offered.
- Our team is able to perform Butt welding as well as Electrofusion for various types of HDPE fittings and pipelines for mining applications, water distribution networks as well as gas distribution networks.



QUALITY ASSURANCE

LONGITUDINAL REVERSION TESTING

- Followed as per test standard of ISO 2505 and governing standards ISO 4427, ISO 4437 and ISO 1452
- Helps understand shrinkage of materials used.

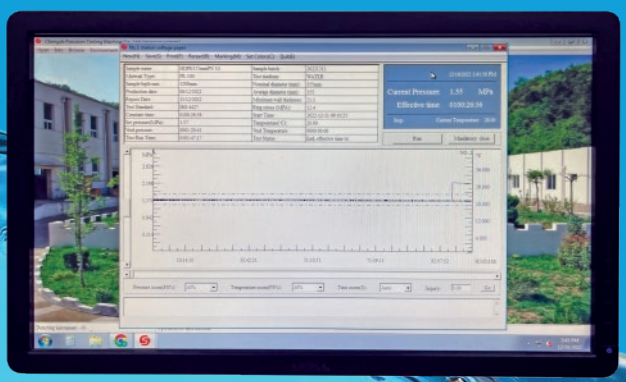




INTERNAL PRESSURE TESTING/HYDROSTATIC TEST

- Followed as per test standard of ISO 1167 and governing standards ISO 4427, ISO 4437 and ISO 1452
- Computerized results and graphical representations.
- Helps understand long term performance of pipes under constant pressure under constant temperature.





ELONGATION AND TENSILE TESTING

- Followed as per test standard of ISO 6259 and governing standards ISO 4427, ISO 4437 and ISO 1452
- This is a qualitative test and performed on HDPE pipes
- Ensures reliability of grade of materials used.



DICHLOROMETHANE TEST

- Followed as per ISO 9852 for uPVC pipes as per governing standard ISO 1452
- This is a qualitative test which helps understanding gelation of pvc compounds



IMPACT / BALL TESTING FOR uPVC PRESSURE PIPES

- Followed as per EN 744 to ensure the resistance from external blows for uPVC pressure pipes
- uPVC are rigid pressure pipes and needs higher resistance to strong impacts



ONLINE DIMENSIONAL CHECKS AND INSPECTIONS

- At SPIL we ensure quality checks begin from the shop floor itself, conducting online dimensional checks, surface checks, print control etc.



SIMBA PIPE WELDING CALCULATOR

SPIL in it's long journey of more than 5 decades has always been a concerned stakeholder for infrastructure development and forever advocated for the sustainable piping infrastructure which will deliver it's full value to all stakeholders. SPIL has been an active participant together with other stakeholders of water and gas supply networks to address the routine challenges and improve the productivity of these important networks.

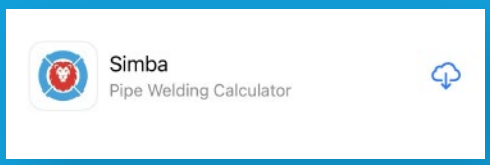
It is in the same order, SPIL has now come with this "SIMBA – Pipe Welding Calculator" Mobile Application to address not only some of the practical on-site challenges faced by work force which is often under-skilled but also to provide monitory benefits to owners of the pipelines through improved productivity.

This HDPE Pipe welding app is freely downloadable application both on Android as well as IOS platforms. It provides a step-by-step guidance in an extremely user-friendly manner to perform a durable welding of HDPE Pipes for both water as well as gas distribution network.

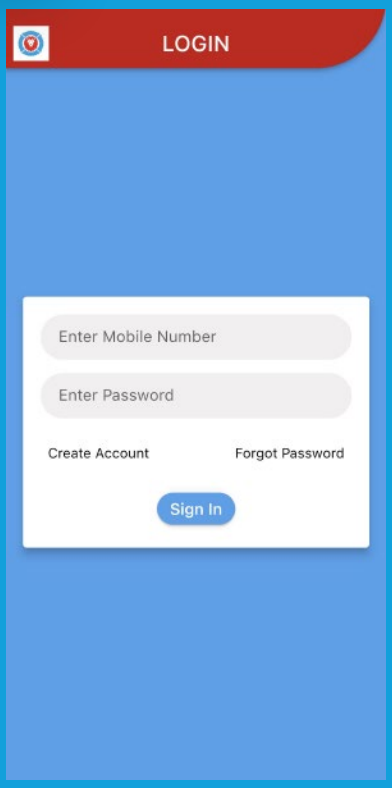
Proper use of this application will assist in providing trustworthy jointing resulting into following major benefits:

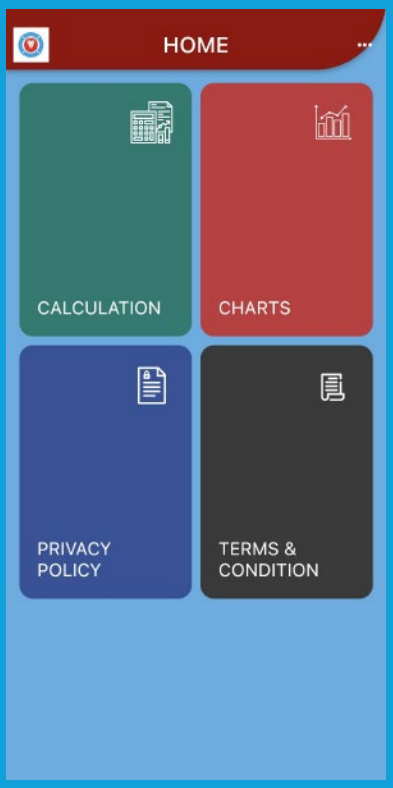
- Reduction in Non-Revenue Water/ Gas, will improve the revenue collection for Authorities.
- Cost of pumping will improve significantly due to no/little pressure loss in the pipeline.
- Users will receive the required pressure at the end point.
- Overall productivity of the pipeline will improve significantly.

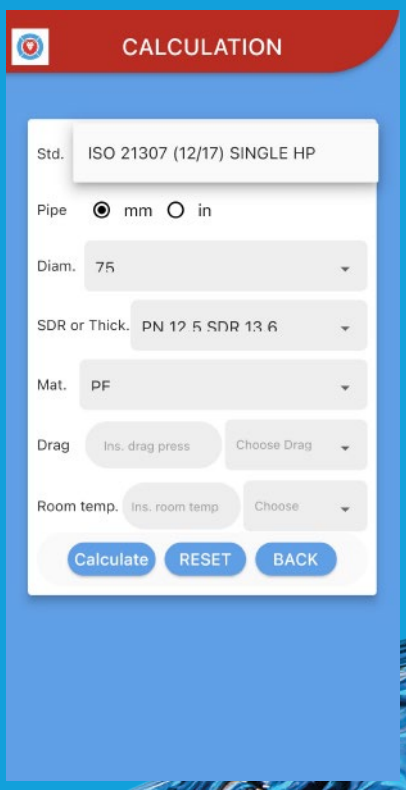
SPIL is more than happy to assist it's users with the required training to use this application upto it's full potential.


Simba
Pipe Welding Calculator


SIMBA
PIPE INDUSTRIES LTD
Pipes for Life


LOGIN
Enter Mobile Number
Enter Password
Create Account
Forgot Password
Sign In


HOME
CALCULATION
CHARTS
PRIVACY POLICY
TERMS & CONDITION


CALCULATION
Std.
ISO 21307 (12/17) SINGLE HP
Pipe
mm
in
Diam.
75
SDR or Thick.
PN 12.5 SDR 13.6
Mat.
PE
Drag
Ins. drag press
Choose Drag
Room temp.
Ins. room temp
Choose
Calculate
RESET
BACK


WELDING PARAM.
Pipe
Diameter = 630 MM
PN 12.5 SDR 13.6 , Min Thickness = 46.3, Max Thickness = 51.1, Mean Thickness = 48.7
(according to std. ISO 4427)
Material = PE
Standard
ISO 21307 (12/17) SINGLE HP
pi = 0.19MPa (1 MPA = 10 BAR)
Drag pressure
pt = 50 BAR
Heater plate temperture
T min = 215°C
T nom = 225°C
T max = 235°C
Bead-up
p1 + pt = 0.19 + 50 = 50.19 BAR
Bead size
Build Welding Chart
TIMER
RESET
BACK

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