INGENIERIA DEL AIRE S.A.S.	MEMORIA DE CÁLCULOS: CANTIDADES DE DUCTOS			IA-MC-010	VERSIÓN 0
	PROYECTO	P 19-09 HOSPITAL SAN VICENTE DE PAUL E2	UBICACIÓN	GARZON HUILA	DISEÑADOR	Ing. Diego Castro

ANOTACIONES		
FECHA	16/09/2019	
REVISION	1	D Castro
ANOTACIONES	Version Inicial	16/09/2019
	Entrega final	5/11/2019
	Ajuste	13/03/2021

TABLA DE DATOS

																	CALIBRE				
DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
A EXTERIOR UFCO-06	10.00	4.00	1.00	0.12				10	4	0.12	24	0.09				0.40					0.40
A EXTERIOR UFCO-06	10.00	4.00	1.00	0.24				10	4	0.24	24	0.17				0.80					0.80
A EXTERIOR UFCO-06	10.00	4.00	1.00	0.12				10	4	0.12	24	0.09				0.40					0.40
A EXTERIOR UFCO-07 08	10.00	4.00	1.00	0.24				10	4	0.24	24	0.17				0.80					0.80
A EXTERIOR UFCO-07 08	10.00	4.00	1.00	0.78				10	4	0.78	24	0.55				2.60					2.60
A EXTERIOR UFCO-07 08	10.00	4.00	1.00	0.22				10	4	0.22	24	0.16				0.73					0.73
A EXTERIOR UFCO-07 08	10.00	6.00	1.00	3.45				10	6	3.45	24	2.80				13.15					13.15
A EXTERIOR UFCO-07 08	10.00	4.00	1.00	2.79				10	4	2.79	24	1.98				9.31					9.31
A EXTERIOR UFCO-07 08	10.00	4.00	1.00	0.24				10	4	0.24	24	0.17				0.80					0.80
A EXTERIOR UFCO-07 08	10.00	4.00	1.00	0.20				10	4	0.20	24	0.14				0.67					0.67
A EXTERIOR UFCO-07 08	10.00	4.00	1.00	0.50				10	4	0.50	24	0.36				1.67					1.67
A EXTERIOR UFCO-09A B	10.00	4.00	1.00	0.85				10	4	0.85	24	0.60				2.84					2.84
A EXTERIOR UFCO-09A B	10.00	6.00	1.00	7.36				10	6	7.36	24	5.98				28.06					28.06
A EXTERIOR UFCO-09A B	10.00	4.00	1.00	0.15				10	4	0.15	24	0.11				0.50					0.50
A EXTERIOR UFCO-09A B	10.00	4.00	1.00	0.30				10	4	0.30	24	0.21				1.00					1.00
A EXTERIOR UFCO-09A B	10.00	4.00	1.00	4.79				10	4	4.79	24	3.41				15.98					15.98
A EXTERIOR UFCO-09A B	10.00	4.00	1.00	6.73				10	4	6.73	24	4.79				22.45					22.45
A EXTERIOR UFCO-09A B	10.00	4.00	1.00	0.78				10	4	0.78	24	0.55				2.60					2.60
A EXTERIOR UFCO-09A B	10.00	4.00	1.00	0.37				10	4	0.37	24	0.26				1.23					1.23
A EXTERIOR UFCO-12	10.00	6.00	1.00	3.42				10	6	3.42	24	2.78				13.04					13.04
A EXTERIOR UFCO-12	10.00	6.00	1.00	7.44				10	6	7.44	24	6.05				28.36					28.36
A EXTERIOR UFCO-12	10.00	6.00	1.00	0.20				10	6	0.20	24	0.16				0.76					0.76
A EXTERIOR UFCO-13	10.00	4.00	1.00	0.46				10	4	0.46	24	0.33				1.53					1.53
A EXTERIOR UFCO-13	10.00	4.00	1.00	5.32				10	4	5.32	24	3.78				17.75					17.75
A EXTERIOR UFCO-13	10.00	4.00	1.00	0.23				10	4	0.23	24	0.16				0.77					0.77
A EXTERIOR URC-02	14.00	6.00	1.00	3.70				14	6	3.70	24	3.76				17.63					17.63
A EXTERIOR URC-02	14.00	6.00	1.00	7.97				14	6	7.97	24	8.10				37.98					37.98
A EXTERIOR URC-02	14.00	6.00	1.00	0.85				14	6	0.85	24	0.86				4.05					4.05
A EXTERIOR URC-02	14.00	6.00	1.00	0.25				14	6	0.25	24	0.25				1.19					1.19
A EXTERIOR URC-02	14.00	6.00	1.00	0.57				14	6	0.57	24	0.58				2.72					2.72
A EXTERIOR URC-02	14.00	6.00	1.00	1.62				14	6	1.62	24	1.65				7.72					7.72
A EXTERIOR URC-02	14.00	6.00	1.00	0.60				14	6	0.60	24	0.61				2.86					2.86
A EXTERIOR URC-02	14.00	6.00	1.00	0.20				14	6	0.20	24	0.20				0.95					0.95
A EXTERIOR URC-02D	14.00	6.00	1.00	4.40				14	6	4.40	24	4.47				20.97					20.97

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
A EXTERIOR URC-05	10.00	6.00	1.00	0.75				10	6	0.75	24	0.61				2.86					2.86
A EXTERIOR URC-05	10.00	6.00	1.00	2.09				10	6	2.09	24	1.70				7.97					7.97
A EXTERIOR URC-05	10.00	6.00	1.00	10.61				10	6	10.61	24	8.62				40.45					40.45
A EXTERIOR URC-05	10.00	6.00	1.00	20.86				10	6	20.86	24	16.96				79.52					79.52
A EXTERIOR URC-05	10.00	6.00	1.00	2.75				10	6	2.75	24	2.24				10.48					10.48
A EXTERIOR URC-05	6.00	10.00	1.00	0.06				6	10	0.06	24	0.05				0.23					0.23
A EXTERIOR URC-05	10.00	6.00	1.00	6.22				10	6	6.22	24	5.06				23.71					23.71
A EXTERIOR URC-05	10.00	6.00	1.00	6.73				10	6	6.73	24	5.47				25.65					25.65
A EXTERIOR URC-05	10.00	6.00	1.00	0.64				10	6	0.64	24	0.52				2.44					2.44
A EXTERIOR URC-05	10.00	6.00	1.00	0.56				10	6	0.56	24	0.46				2.13					2.13
A EXTERIOR URC-05D	10.00	6.00	1.00	0.21				10	6	0.21	24	0.17				0.80					0.80
A EXTERIOR URC-05D	10.00	6.00	1.00	0.48				10	6	0.48	24	0.39				1.83					1.83
A EXTERIOR URC-10	16.00	14.00	1.00	0.09				16	14	0.09	24	0.14				0.64					0.64
A EXTERIOR URC-10	16.00	14.00	1.00	5.16				16	14	5.16	24	7.86				36.88					36.88
A EXTERIOR URC-10	16.00	14.00	1.00	17.49				16	14	17.49	24	26.65				125.01					125.01
A EXTERIOR URC-10	16.00	14.00	1.00	11.22				16	14	11.22	24	17.10				80.20					80.20
A EXTERIOR URC-10	16.00	14.00	1.00	0.17				16	14	0.17	24	0.26				1.22					1.22
A EXTERIOR URC-10	16.00	14.00	1.00	1.32				16	14	1.32	24	2.01				9.43					9.43
A EXTERIOR URC-10	16.00	14.00	1.00	1.80				16	14	1.80	24	2.74				12.87					12.87
A EXTERIOR URC-10D	16.00	14.00	1.00	1.07				16	14	1.07	24	1.63				7.65					7.65
A EXTERIOR URC-10D	16.00	14.00	1.00	3.42				16	14	3.42	24	5.21				24.44					24.44
A EXTERIOR URC-10D	16.00	14.00	1.00	0.94				16	14	0.94	24	1.43				6.72					6.72
A EXTERIOR URC-13	12.00	10.00	1.00	0.59				12	10	0.59	24	0.66				3.09					3.09
A EXTERIOR URC-13	12.00	10.00	1.00	3.97				12	10	3.97	24	4.44				20.81					20.81
A EXTERIOR URC-13	12.00	10.00	1.00	13.48				12	10	13.48	24	15.07				70.66					70.66
A EXTERIOR URC-13	12.00	10.00	1.00	2.18				12	10	2.18	24	2.44				11.43					11.43
A EXTERIOR URC-13	12.00	10.00	1.00	2.39				12	10	2.39	24	2.67				12.53					12.53
A EXTERIOR URC-13	12.00	10.00	1.00	2.12				12	10	2.12	24	2.37				11.11					11.11
A EXTERIOR URC-13	12.00	10.00	1.00	0.60				12	10	0.60	24	0.67				3.14					3.14
A EXTERIOR URC-13	12.00	10.00	1.00	0.61				12	10	0.61	24	0.68				3.20					3.20
A EXTERIOR URC-13	12.00	10.00	1.00	0.20				12	10	0.20	24	0.22				1.05					1.05
A EXTERIOR URC-13	12.00	10.00	1.00	0.20				12	10	0.20	24	0.22				1.05					1.05
A EXTERIOR URC-13D	12.00	10.00	1.00	0.34				12	10	0.34	24	0.38				1.78					1.78
A EXTERIOR URC-13D	12.00	10.00	1.00	6.08				12	10	6.08	24	6.80				31.87					31.87
EXTRACCION VE-05	12.00	6.00	1.00	3.13				12	6	3.13	24	2.86				13.42					13.42
EXTRACCION VE-05	14.00	12.00	1.00	0.83				14	12	0.83	24	1.10				5.14					5.14
EXTRACCION VE-05	10.00	4.00	1.00	0.98				10	4	0.98	24	0.70				3.27					3.27
EXTRACCION VE-05	8.00	8.00	1.00	0.02				8	8	0.02	24	0.02				0.08					0.08
EXTRACCION VE-05	10.00	4.00	1.00	4.73				10	4	4.73	24	3.36				15.78					15.78
EXTRACCION VE-05	8.00	8.00	1.00	0.05				8	8	0.05	24	0.04				0.19					0.19
EXTRACCION VE-05	8.00	8.00	1.00	0.05				8	8	0.05	24	0.04				0.19					0.19
EXTRACCION VE-05	8.00	8.00	1.00	0.05				8	8	0.05	24	0.04				0.19					0.19
EXTRACCION VE-05	8.00	8.00	1.00	0.05				8	8	0.05	24	0.04				0.19					0.19
EXTRACCION VE-05	8.00	8.00	1.00	0.02				8	8	0.02	24	0.02				0.08					0.08
EXTRACCION VE-05	10.00	4.00	1.00	0.59				10	4	0.59	24	0.42				1.97					1.97
EXTRACCION VE-05	8.00	8.00	1.00	0.02				8	8	0.02	24	0.02				0.08					0.08
EXTRACCION VE-05	14.00	12.00	1.00	1.16				14	12	1.16	24	1.53				7.19					7.19
EXTRACCION VE-05	14.00	12.00	1.00	11.42				14	12	11.42	24	15.08				70.74					70.74
EXTRACCION VE-05	12.00	4.00	1.00	0.78				12	4	0.78	24	0.63				2.97					2.97
EXTRACCION VE-05	10.00	10.00	1.00	0.02				10	10	0.02	24	0.02				0.10					0.10
EXTRACCION VE-05	14.00	8.00	1.00	3.37				14	8	3.37	24	3.77				17.66					17.66
EXTRACCION VE-05	12.00	4.00	1.00	1.21				12	4	1.21	24	0.98				4.61					4.61
EXTRACCION VE-05	10.00	4.00	1.00	0.80				10	4	0.80	24	0.57				2.67					2.67
EXTRACCION VE-05	12.00	6.00	1.00	4.03				12	6	4.03	24	3.69				17.28					17.28
EXTRACCION VE-05	8.00	8.00	1.00	0.02				8	8	0.02	24	0.02				0.08					0.08
EXTRACCION VE-05	8.00	8.00	1.00	0.02				8	8	0.02	24	0.02				0.08					0.08
EXTRACCION VE-05	10.00	4.00	1.00	1.09				10	4	1.09	24	0.78				3.64					3.64
EXTRACCION VE-05	14.00	10.00	1.00	24.06				14	10	24.06	24	29.33				137.58					137.58
EXTRACCION VE-05	14.00	12.00	1.00	0.82				14	12	0.82	24	1.08				5.08					5.08

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-05	14.00	12.00	1.00	0.06				14	12	0.06	24	0.08				0.37					0.37
EXTRACCION VE-05	10.00	4.00	1.00	2.29				10	4	2.29	24	1.63				7.64					7.64
EXTRACCION VE-05	10.00	4.00	1.00	0.40				10	4	0.40	24	0.28				1.33					1.33
EXTRACCION VE-05	10.00	4.00	1.00	0.10				10	4	0.10	24	0.07				0.33					0.33
EXTRACCION VE-05	10.00	4.00	1.00	0.70				10	4	0.70	24	0.50				2.33					2.33
EXTRACCION VE-05	10.00	4.00	1.00	0.10				10	4	0.10	24	0.07				0.33					0.33
EXTRACCION VE-05	14.00	12.00	1.00	0.05				14	12	0.05	24	0.07				0.31					0.31
EXTRACCION VE-05	14.00	12.00	1.00	2.42				14	12	2.42	24	3.20				14.99					14.99
EXTRACCION VE-05	14.00	12.00	1.00	0.15				14	12	0.15	24	0.20				0.93					0.93
EXTRACCION VE-06	10.00	4.00	1.00	2.72				10	4	2.72	24	1.93				9.07					9.07
EXTRACCION VE-06	8.00	8.00	1.00	0.05				8	8	0.05	24	0.04				0.19					0.19
EXTRACCION VE-06	8.00	8.00	1.00	0.02				8	8	0.02	24	0.02				0.08					0.08
EXTRACCION VE-06	14.00	6.00	1.00	1.83				14	6	1.83	24	1.86				8.72					8.72
EXTRACCION VE-06	14.00	6.00	1.00	19.06				14	6	19.06	24	19.36				90.82					90.82
EXTRACCION VE-06	14.00	6.00	1.00	5.63				14	6	5.63	24	5.72				26.83					26.83
EXTRACCION VE-06	14.00	6.00	1.00	11.69				14	6	11.69	24	11.88				55.70					55.70
EXTRACCION VE-06	14.00	6.00	1.00	0.62				14	6	0.62	24	0.63				2.95					2.95
EXTRACCION VE-07	6.00	8.00	1.00	2.24				6	8	2.24	24	1.59				7.47					7.47
EXTRACCION VE-07	14.00	10.00	1.00	0.92				14	10	0.92	24	1.12				5.26					5.26
EXTRACCION VE-07	12.00	10.00	1.00	2.69				12	10	2.69	24	3.01				14.10					14.10
EXTRACCION VE-07	8.00	10.00	1.00	2.77				8	10	2.77	24	2.53				11.88					11.88
EXTRACCION VE-07	14.00	6.00	1.00	0.31				14	6	0.31	24	0.31				1.48					1.48
EXTRACCION VE-07	14.00	6.00	1.00	0.26				14	6	0.26	24	0.26				1.24					1.24
EXTRACCION VE-07	14.00	6.00	1.00	0.16				14	6	0.16	24	0.16				0.76					0.76
EXTRACCION VE-07	14.00	6.00	1.00	0.11				14	6	0.11	24	0.11				0.52					0.52
EXTRACCION VE-07	14.00	10.00	1.00	4.07				14	10	4.07	24	4.96				23.27					23.27
EXTRACCION VE-07D	14.00	10.00	1.00	1.16				14	10	1.16	24	1.41				6.63					6.63
EXTRACCION VE-07D	14.00	10.00	1.00	3.47				14	10	3.47	24	4.23				19.84					19.84
EXTRACCION VE-11	10.00	4.00	1.00	4.95				10	4	4.95	24	3.52				16.51					16.51
EXTRACCION VE-11	10.00	6.00	1.00	6.92				10	6	6.92	24	5.62				26.38					26.38
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	4.00	1.00	0.73				10	4	0.73	24	0.52				2.43					2.43
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	4.00	1.00	0.58				10	4	0.58	24	0.41				1.93					1.93
EXTRACCION VE-11	10.00	4.00	1.00	4.79				10	4	4.79	24	3.41				15.98					15.98
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	4.00	1.00	0.64				10	4	0.64	24	0.46				2.13					2.13
EXTRACCION VE-11	14.00	10.00	1.00	2.47				14	10	2.47	24	3.01				14.12					14.12
EXTRACCION VE-11	8.00	8.00	1.00	0.15				8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	5.09				10	4	5.09	24	3.62				16.98					16.98
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	4.00	1.00	0.59				10	4	0.59	24	0.42				1.97					1.97
EXTRACCION VE-11	10.00	4.00	1.00	4.82				10	4	4.82	24	3.43				16.08					16.08
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	4.00	1.00	0.56				10	4	0.56	24	0.40				1.87					1.87
EXTRACCION VE-11	10.00	4.00	1.00	4.80				10	4	4.80	24	3.41				16.01					16.01
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	6.00	1.00	1.99				10	6	1.99	24	1.62				7.59					7.59
EXTRACCION VE-11	10.00	6.00	1.00	7.09				10	6	7.09	24	5.76				27.03					27.03
EXTRACCION VE-11	10.00	4.00	1.00	0.99				10	4	0.99	24	0.70				3.30					3.30
EXTRACCION VE-11	10.00	4.00	1.00	0.42				10	4	0.42	24	0.30				1.40					1.40
EXTRACCION VE-11	10.00	4.00	1.00	4.80				10	4	4.80	24	3.41				16.01					16.01
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-11	10.00	4.00	1.00	1.10				10	4	1.10	24	0.78				3.67					3.67
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	4.00	1.00	4.25				10	4	4.25	24	3.02				14.18					14.18
EXTRACCION VE-11	8.00	8.00	1.00	0.15				8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15				8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15				8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	6.00	1.00	9.73				10	6	9.73	24	7.91				37.09					37.09
EXTRACCION VE-11	10.00	4.00	1.00	0.57				10	4	0.57	24	0.41				1.90					1.90
EXTRACCION VE-11	10.00	4.00	1.00	4.78				10	4	4.78	24	3.40				15.94					15.94
EXTRACCION VE-11	10.00	4.00	1.00	0.57				10	4	0.57	24	0.41				1.90					1.90
EXTRACCION VE-11	10.00	4.00	1.00	4.75				10	4	4.75	24	3.38				15.84					15.84
EXTRACCION VE-11	10.00	4.00	1.00	2.50				10	4	2.50	24	1.78				8.34					8.34
EXTRACCION VE-11	10.00	4.00	1.00	5.06				10	4	5.06	24	3.60				16.88					16.88
EXTRACCION VE-11	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-11	8.00	8.00	1.00	0.42				8	8	0.42	24	0.34				1.60					1.60
EXTRACCION VE-11	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-11	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-11	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-11	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-11	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-11	8.00	8.00	1.00	0.30				8	8	0.30	24	0.24				1.14					1.14
EXTRACCION VE-11	10.00	4.00	1.00	1.60				10	4	1.60	24	1.14				5.34					5.34
EXTRACCION VE-11	10.00	4.00	1.00	3.02				10	4	3.02	24	2.15				10.07					10.07
EXTRACCION VE-11	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-11	10.00	4.00	1.00	1.29				10	4	1.29	24	0.92				4.30					4.30
EXTRACCION VE-11	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-11	10.00	4.00	1.00	0.59				10	4	0.59	24	0.42				1.97					1.97
EXTRACCION VE-11	10.00	4.00	1.00	5.22				10	4	5.22	24	3.71				17.41					17.41
EXTRACCION VE-11	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-11	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-11	10.00	4.00	1.00	0.52				10	4	0.52	24	0.37				1.73					1.73
EXTRACCION VE-11	10.00	4.00	1.00	5.20				10	4	5.20	24	3.70				17.34					17.34
EXTRACCION VE-11	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-11	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-11	10.00	4.00	1.00	7.10				10	4	7.10	24	5.05				23.68					23.68
EXTRACCION VE-11	10.00	6.00	1.00	1.22				10	6	1.22	24	0.99				4.65					4.65
EXTRACCION VE-11	10.00	4.00	1.00	1.66				10	4	1.66	24	1.18				5.54					5.54
EXTRACCION VE-11	14.00	8.00	1.00	5.28				14	8	5.28	24	5.90				27.68					27.68
EXTRACCION VE-11	14.00	8.00	1.00	16.43				14	8	16.43	24	18.36				86.12					86.12
EXTRACCION VE-11	18.00	10.00	1.00	14.94				18	10	14.94	24	21.25				99.67					99.67
EXTRACCION VE-11	10.00	4.00	1.00	1.68				10	4	1.68	24	1.19				5.60					5.60
EXTRACCION VE-11	10.00	4.00	1.00	0.85				10	4	0.85	24	0.60				2.84					2.84
EXTRACCION VE-11	8.00	8.00	1.00	0.46				8	8	0.46	24	0.37				1.75					1.75
EXTRACCION VE-11	10.00	4.00	1.00	0.88				10	4	0.88	24	0.63				2.94					2.94
EXTRACCION VE-11	8.00	8.00	1.00	0.96				8	8	0.96	24	0.78				3.66					3.66
EXTRACCION VE-11	8.00	8.00	1.00	0.94				8	8	0.94	24	0.76				3.58					3.58
EXTRACCION VE-11	8.00	8.00	1.00	0.94				8	8	0.94	24	0.76				3.58					3.58
EXTRACCION VE-11	10.00	4.00	1.00	0.53				10	4	0.53	24	0.38				1.77					1.77
EXTRACCION VE-11	10.00	4.00	1.00	3.11				10	4	3.11	24	2.21				10.37					10.37
EXTRACCION VE-11	8.00	8.00	1.00	0.96				8	8	0.96	24	0.78				3.66					3.66
EXTRACCION VE-11	8.00	8.00	1.00	0.96				8	8	0.96	24	0.78				3.66					3.66
EXTRACCION VE-11	10.00	4.00	1.00	1.17				10	4	1.17	24	0.83				3.90					3.90
EXTRACCION VE-11	10.00	4.00	1.00	1.76				10	4	1.76	24	1.25				5.87					5.87
EXTRACCION VE-11	8.00	8.00	1.00	0.36				8	8	0.36	24	0.29				1.37					1.37
EXTRACCION VE-11	10.00	4.00	1.00	1.19				10	4	1.19	24	0.85				3.97					3.97
EXTRACCION VE-11	8.00	8.00	1.00	0.36				8	8	0.36	24	0.29				1.37					1.37
EXTRACCION VE-11	10.00	4.00	1.00	2.84				10	4	2.84	24	2.02				9.47					9.47
EXTRACCION VE-11	10.00	4.00	1.00	2.44				10	4	2.44	24	1.74				8.14					8.14
EXTRACCION VE-11	10.00	4.00	1.00	1.17				10	4	1.17	24	0.83				3.90					3.90

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-11	8.00	8.00	1.00	0.36				8	8	0.36	24	0.29				1.37					1.37
EXTRACCION VE-11	8.00	8.00	1.00	0.36				8	8	0.36	24	0.29				1.37					1.37
EXTRACCION VE-11	8.00	8.00	1.00	0.36				8	8	0.36	24	0.29				1.37					1.37
EXTRACCION VE-11	8.00	8.00	1.00	0.36				8	8	0.36	24	0.29				1.37					1.37
EXTRACCION VE-11	10.00	4.00	1.00	1.89				10	4	1.89	24	1.34				6.30					6.30
EXTRACCION VE-11	10.00	4.00	1.00	2.18				10	4	2.18	24	1.55				7.27					7.27
EXTRACCION VE-11	10.00	4.00	1.00	3.31				10	4	3.31	24	2.35				11.04					11.04
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	4.00	1.00	4.06				10	4	4.06	24	2.89				13.54					13.54
EXTRACCION VE-11	10.00	4.00	1.00	1.83				10	4	1.83	24	1.30				6.10					6.10
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	4.00	1.00	1.68				10	4	1.68	24	1.19				5.60					5.60
EXTRACCION VE-11	10.00	4.00	1.00	1.92				10	4	1.92	24	1.37				6.40					6.40
EXTRACCION VE-11	10.00	4.00	1.00	18.58				10	4	18.58	24	13.21				61.97					61.97
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	4.00	1.00	1.24				10	4	1.24	24	0.88				4.14					4.14
EXTRACCION VE-11	10.00	4.00	1.00	0.60				10	4	0.60	24	0.43				2.00					2.00
EXTRACCION VE-11	10.00	4.00	1.00	1.70				10	4	1.70	24	1.21				5.67					5.67
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	4.00	1.00	5.82				10	4	5.82	24	4.14				19.41					19.41
EXTRACCION VE-11	10.00	4.00	1.00	0.60				10	4	0.60	24	0.43				2.00					2.00
EXTRACCION VE-11	10.00	4.00	1.00	1.73				10	4	1.73	24	1.23				5.77					5.77
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	4.00	1.00	0.40				10	4	0.40	24	0.28				1.33					1.33
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	4.00	1.00	5.47				10	4	5.47	24	3.89				18.25					18.25
EXTRACCION VE-11	8.00	8.00	1.00	0.36				8	8	0.36	24	0.29				1.37					1.37
EXTRACCION VE-11	8.00	8.00	1.00	0.36				8	8	0.36	24	0.29				1.37					1.37
EXTRACCION VE-11	14.00	10.00	1.00	1.74				14	10	1.74	24	2.12				9.95					9.95
EXTRACCION VE-11	12.00	10.00	1.00	2.33				12	10	2.33	24	2.60				12.21					12.21
EXTRACCION VE-11	14.00	10.00	1.00	4.76				14	10	4.76	24	5.80				27.22					27.22
EXTRACCION VE-11	8.00	8.00	1.00	0.07				8	8	0.07	24	0.06				0.27					0.27
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	8.00	8.00	1.00	0.10				8	8	0.10	24	0.08				0.38					0.38
EXTRACCION VE-11	10.00	6.00	1.00	2.34				10	6	2.34	24	1.90				8.92					8.92
EXTRACCION VE-11	10.00	4.00	1.00	2.32				10	4	2.32	24	1.65				7.74					7.74
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	12.00	6.00	1.00	0.66				12	6	0.66	24	0.60				2.83					2.83
EXTRACCION VE-11	10.00	6.00	1.00	1.62				10	6	1.62	24	1.32				6.18					6.18
EXTRACCION VE-11	8.00	8.00	1.00	0.10				8	8	0.10	24	0.08				0.38					0.38
EXTRACCION VE-11	12.00	8.00	1.00	8.04				12	8	8.04	24	8.17				38.31					38.31
EXTRACCION VE-11	10.00	4.00	1.00	0.63				10	4	0.63	24	0.45				2.10					2.10
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	4.00	1.00	3.70				10	4	3.70	24	2.63				12.34					12.34
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	12.00	6.00	1.00	1.36				12	6	1.36	24	1.24				5.83					5.83
EXTRACCION VE-11	12.00	8.00	1.00	13.57				12	8	13.57	24	13.79				64.66					64.66
EXTRACCION VE-11	10.00	4.00	1.00	1.82				10	4	1.82	24	1.29				6.07					6.07
EXTRACCION VE-11	22.00	12.00	1.00	3.69				22	12	3.69	24	6.37				29.89					29.89
EXTRACCION VE-11	14.00	10.00	1.00	2.20				14	10	2.20	24	2.68				12.58					12.58
EXTRACCION VE-11	18.00	10.00	1.00	15.94				18	10	15.94	24	22.67				106.34					106.34
EXTRACCION VE-11	10.00	4.00	1.00	6.90				10	4	6.90	24	4.91				23.02					23.02
EXTRACCION VE-11	12.00	6.00	1.00	1.01				12	6	1.01	24	0.92				4.33					4.33
EXTRACCION VE-11	10.00	10.00	1.00	0.10				10	10	0.10	24	0.10				0.48					0.48

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-11	12.00	6.00	1.00	2.59				12	6	2.59	24	2.37				11.11					11.11
EXTRACCION VE-11	12.00	6.00	1.00	4.79				12	6	4.79	24	4.38				20.54					20.54
EXTRACCION VE-11	10.00	4.00	1.00	4.50				10	4	4.50	24	3.20				15.01					15.01
EXTRACCION VE-11	14.00	8.00	1.00	3.62				14	8	3.62	24	4.05				18.97					18.97
EXTRACCION VE-11	22.00	12.00	1.00	0.34				22	12	0.34	24	0.59				2.75					2.75
EXTRACCION VE-11	32.00	18.00	1.00	1.59				32	18	1.59	22	4.04				22.70				22.70	
EXTRACCION VE-11	10.00	4.00	1.00	0.45				10	4	0.45	24	0.32				1.50					1.50
EXTRACCION VE-11	10.00	4.00	1.00	0.45				10	4	0.45	24	0.32				1.50					1.50
EXTRACCION VE-11	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-11	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-11	10.00	6.00	1.00	4.88				10	6	4.88	24	3.97				18.60					18.60
EXTRACCION VE-11	10.00	8.00	1.00	6.72				10	8	6.72	24	6.14				28.82					28.82
EXTRACCION VE-11	12.00	8.00	1.00	1.58				12	8	1.58	24	1.61				7.53					7.53
EXTRACCION VE-11	14.00	8.00	1.00	2.71				14	8	2.71	24	3.03				14.20					14.20
EXTRACCION VE-11	18.00	10.00	1.00	3.80				18	10	3.80	24	5.41				25.35					25.35
EXTRACCION VE-11	10.00	6.00	1.00	1.67				10	6	1.67	24	1.36				6.37					6.37
EXTRACCION VE-11	10.00	6.00	1.00	6.44				10	6	6.44	24	5.23				24.55					24.55
EXTRACCION VE-11	10.00	8.00	1.00	2.83				10	8	2.83	24	2.59				12.14					12.14
EXTRACCION VE-11	18.00	10.00	1.00	0.42				18	10	0.42	24	0.60				2.80					2.80
EXTRACCION VE-11	22.00	12.00	1.00	2.63				22	12	2.63	24	4.54				21.30					21.30
EXTRACCION VE-11	10.00	6.00	1.00	1.90				10	6	1.90	24	1.54				7.24					7.24
EXTRACCION VE-11	10.00	8.00	1.00	0.86				10	8	0.86	24	0.79				3.69					3.69
EXTRACCION VE-11	10.00	6.00	1.00	2.51				10	6	2.51	24	2.04				9.57					9.57
EXTRACCION VE-11	10.00	6.00	1.00	2.55				10	6	2.55	24	2.07				9.72					9.72
EXTRACCION VE-11	10.00	6.00	1.00	1.52				10	6	1.52	24	1.24				5.79					5.79
EXTRACCION VE-11	10.00	6.00	1.00	3.13				10	6	3.13	24	2.54				11.93					11.93
EXTRACCION VE-11	10.00	4.00	1.00	1.17				10	4	1.17	24	0.83				3.90					3.90
EXTRACCION VE-11	10.00	4.00	1.00	1.76				10	4	1.76	24	1.25				5.87					5.87
EXTRACCION VE-11	8.00	8.00	1.00	0.36				8	8	0.36	24	0.29				1.37					1.37
EXTRACCION VE-11	10.00	4.00	1.00	1.19				10	4	1.19	24	0.85				3.97					3.97
EXTRACCION VE-11	8.00	8.00	1.00	0.36				8	8	0.36	24	0.29				1.37					1.37
EXTRACCION VE-11	10.00	6.00	1.00	3.13				10	6	3.13	24	2.54				11.93					11.93
EXTRACCION VE-11	14.00	8.00	1.00	1.18				14	8	1.18	24	1.32				6.19					6.19
EXTRACCION VE-11	14.00	10.00	1.00	3.03				14	10	3.03	24	3.69				17.33					17.33
EXTRACCION VE-11	22.00	14.00	1.00	0.99				22	14	0.99	24	1.81				8.49					8.49
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	6.00	1.00	20.86				10	6	20.86	24	16.96				79.52					79.52
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	6.00	1.00	2.46				10	6	2.46	24	2.00				9.38					9.38
EXTRACCION VE-11	10.00	4.00	1.00	0.72				10	4	0.72	24	0.51				2.40					2.40
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	4.00	1.00	1.13				10	4	1.13	24	0.80				3.77					3.77
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	8.00	1.00	2.03				10	8	2.03	24	1.86				8.71					8.71
EXTRACCION VE-11	14.00	10.00	1.00	10.62				14	10	10.62	24	12.95				60.73					60.73
EXTRACCION VE-11	18.00	14.00	1.00	1.60				18	14	1.60	24	2.60				12.20					12.20
EXTRACCION VE-11	10.00	4.00	1.00	1.34				10	4	1.34	24	0.95				4.47					4.47
EXTRACCION VE-11	10.00	6.00	1.00	4.75				10	6	4.75	24	3.86				18.11					18.11
EXTRACCION VE-11	22.00	16.00	1.00	3.15				22	16	3.15	24	6.08				28.52					28.52
EXTRACCION VE-11	10.00	4.00	1.00	1.63				10	4	1.63	24	1.16				5.44					5.44
EXTRACCION VE-11	10.00	6.00	1.00	4.86				10	6	4.86	24	3.95				18.53					18.53
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	4.00	1.00	1.10				10	4	1.10	24	0.78				3.67					3.67
EXTRACCION VE-11	10.00	4.00	1.00	1.44				10	4	1.44	24	1.02				4.80					4.80
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	4.00	1.00	1.74				10	4	1.74	24	1.24				5.80					5.80
EXTRACCION VE-11	10.00	4.00	1.00	4.75				10	4	4.75	24	3.38				15.84					15.84
EXTRACCION VE-11	10.00	4.00	1.00	6.91				10	4	6.91	24	4.91				23.05					23.05

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	4.00	1.00	6.29				10	4	6.29	24	4.47				20.98					20.98
EXTRACCION VE-11	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-11	10.00	6.00	1.00	2.64				10	6	2.64	24	2.15				10.06					10.06
EXTRACCION VE-11	10.00	6.00	1.00	2.34				10	6	2.34	24	1.90				8.92					8.92
EXTRACCION VE-11	32.00	18.00	1.00	0.42				32	18	0.42	22	1.07				6.00				6.00	
EXTRACCION VE-11	32.00	18.00	1.00	1.52				32	18	1.52	22	3.86				21.70				21.70	
EXTRACCION VE-11	10.00	6.00	1.00	12.54				10	6	12.54	24	10.19				47.80					47.80
EXTRACCION VE-11	10.00	6.00	1.00	1.09				10	6	1.09	24	0.89				4.16					4.16
EXTRACCION VE-11	10.00	6.00	1.00	1.80				10	6	1.80	24	1.46				6.86					6.86
EXTRACCION VE-11	32.00	18.00	1.00	0.29				32	18	0.29	22	0.74				4.14				4.14	
EXTRACCION VE-11	18.00	12.00	1.00	2.82				18	12	2.82	24	4.30				20.16					20.16
EXTRACCION VE-11	18.00	12.00	1.00	5.90				18	12	5.90	24	8.99				42.17					42.17
EXTRACCION VE-11	18.00	12.00	1.00	0.31				18	12	0.31	24	0.47				2.22					2.22
EXTRACCION VE-12	14.00	6.00	1.00	1.20				14	6	1.20	24	1.22				5.72					5.72
EXTRACCION VE-12	8.00	8.00	1.00	0.14				8	8	0.14	24	0.11				0.53					0.53
EXTRACCION VE-12	8.00	8.00	1.00	0.14				8	8	0.14	24	0.11				0.53					0.53
EXTRACCION VE-12	8.00	8.00	1.00	0.08				8	8	0.08	24	0.07				0.30					0.30
EXTRACCION VE-12	12.00	12.00	1.00	0.11				12	12	0.11	24	0.13				0.63					0.63
EXTRACCION VE-12	10.00	4.00	1.00	1.29				10	4	1.29	24	0.92				4.30					4.30
EXTRACCION VE-12	10.00	4.00	1.00	3.54				10	4	3.54	24	2.52				11.81					11.81
EXTRACCION VE-12	10.00	6.00	1.00	20.39				10	6	20.39	24	16.57				77.73					77.73
EXTRACCION VE-12	10.00	4.00	1.00	4.73				10	4	4.73	24	3.36				15.78					15.78
EXTRACCION VE-12	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-12	12.00	6.00	1.00	1.48				12	6	1.48	24	1.35				6.35					6.35
EXTRACCION VE-12	12.00	6.00	1.00	5.65				12	6	5.65	24	5.17				24.23					24.23
EXTRACCION VE-12	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-12	8.00	8.00	1.00	0.10				8	8	0.10	24	0.08				0.38					0.38
EXTRACCION VE-12	8.00	8.00	1.00	0.10				8	8	0.10	24	0.08				0.38					0.38
EXTRACCION VE-12	10.00	4.00	1.00	0.13				10	4	0.13	24	0.09				0.43					0.43
EXTRACCION VE-12	10.00	4.00	1.00	6.47				10	4	6.47	24	4.60				21.58					21.58
EXTRACCION VE-12	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-12	10.00	4.00	1.00	2.26				10	4	2.26	24	1.61				7.54					7.54
EXTRACCION VE-12	10.00	4.00	1.00	0.97				10	4	0.97	24	0.69				3.24					3.24
EXTRACCION VE-12	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-12	10.00	4.00	1.00	1.47				10	4	1.47	24	1.05				4.90					4.90
EXTRACCION VE-12	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-12	10.00	4.00	1.00	2.07				10	4	2.07	24	1.47				6.90					6.90
EXTRACCION VE-12	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-12	10.00	6.00	1.00	1.81				10	6	1.81	24	1.47				6.90					6.90
EXTRACCION VE-12	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-12	10.00	4.00	1.00	1.52				10	4	1.52	24	1.08				5.07					5.07
EXTRACCION VE-12	8.00	8.00	1.00	0.04				8	8	0.04	24	0.03				0.15					0.15
EXTRACCION VE-12	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-12	14.00	6.00	1.00	3.93				14	6	3.93	24	3.99				18.73					18.73
EXTRACCION VE-12	10.00	4.00	1.00	2.15				10	4	2.15	24	1.53				7.17					7.17
EXTRACCION VE-12	8.00	8.00	1.00	0.19				8	8	0.19	24	0.15				0.72					0.72
EXTRACCION VE-12	10.00	4.00	1.00	2.15				10	4	2.15	24	1.53				7.17					7.17
EXTRACCION VE-12	8.00	8.00	1.00	0.19				8	8	0.19	24	0.15				0.72					0.72
EXTRACCION VE-12	14.00	8.00	1.00	11.18				14	8	11.18	24	12.49				58.60					58.60
EXTRACCION VE-12	14.00	8.00	1.00	19.38				14	8	19.38	24	21.66				101.58					101.58
EXTRACCION VE-12	14.00	8.00	1.00	2.96				14	8	2.96	24	3.31				15.51					15.51
EXTRACCION VE-12	14.00	8.00	1.00	21.58				14	8	21.58	24	24.12				113.11					113.11
EXTRACCION VE-12	10.00	4.00	1.00	3.12				10	4	3.12	24	2.22				10.41					10.41
EXTRACCION VE-12	14.00	10.00	1.00	4.91				14	10	4.91	24	5.99				28.08					28.08
EXTRACCION VE-12	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-12	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-12	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-12	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-12	10.00	4.00	1.00	2.86				10	4	2.86	24	2.03				9.54					9.54
EXTRACCION VE-12	10.00	6.00	1.00	23.84				10	6	23.84	24	19.38				90.88					90.88
EXTRACCION VE-12	10.00	6.00	1.00	18.34				10	6	18.34	24	14.91				69.91					69.91
EXTRACCION VE-12	14.00	8.00	1.00	2.74				14	8	2.74	24	3.06				14.36					14.36
EXTRACCION VE-12	10.00	4.00	1.00	2.34				10	4	2.34	24	1.66				7.81					7.81
EXTRACCION VE-12	10.00	4.00	1.00	0.78				10	4	0.78	24	0.55				2.60					2.60
EXTRACCION VE-12	8.00	8.00	1.00	0.47				8	8	0.47	24	0.38				1.79					1.79
EXTRACCION VE-12	10.00	4.00	1.00	1.94				10	4	1.94	24	1.38				6.47					6.47
EXTRACCION VE-12	8.00	8.00	1.00	0.47				8	8	0.47	24	0.38				1.79					1.79
EXTRACCION VE-12	10.00	4.00	1.00	0.88				10	4	0.88	24	0.63				2.94					2.94
EXTRACCION VE-12	10.00	4.00	1.00	1.91				10	4	1.91	24	1.36				6.37					6.37
EXTRACCION VE-12	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-12	10.00	4.00	1.00	1.98				10	4	1.98	24	1.41				6.60					6.60
EXTRACCION VE-12	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-12	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-12	10.00	6.00	1.00	1.80				10	6	1.80	24	1.46				6.86					6.86
EXTRACCION VE-12	12.00	8.00	1.00	5.09				12	8	5.09	24	5.17				24.25					24.25
EXTRACCION VE-12	10.00	4.00	1.00	2.74				10	4	2.74	24	1.95				9.14					9.14
EXTRACCION VE-12	20.00	10.00	1.00	1.43				20	10	1.43	24	2.18				10.22					10.22
EXTRACCION VE-12	20.00	10.00	1.00	18.21				20	10	18.21	24	27.75				130.16					130.16
EXTRACCION VE-12	20.00	10.00	1.00	16.62				20	10	16.62	24	25.33				118.79					118.79
EXTRACCION VE-12	20.00	10.00	1.00	2.47				20	10	2.47	24	3.76				17.65					17.65
EXTRACCION VE-12	14.00	10.00	1.00	0.59				14	10	0.59	24	0.72				3.37					3.37
EXTRACCION VE-12	18.00	12.00	1.00	2.79				18	12	2.79	24	4.25				19.94					19.94
EXTRACCION VE-12	18.00	12.00	1.00	2.17				18	12	2.17	24	3.31				15.51					15.51
EXTRACCION VE-12	18.00	12.00	1.00	0.27				18	12	0.27	24	0.41				1.93					1.93
EXTRACCION VE-12	14.00	8.00	1.00	5.49				14	8	5.49	24	6.14				28.78					28.78
EXTRACCION VE-12	10.00	4.00	1.00	1.83				10	4	1.83	24	1.30				6.10					6.10
EXTRACCION VE-12	10.00	6.00	1.00	0.05				10	6	0.05	24	0.04				0.19					0.19
EXTRACCION VE-12	10.00	6.00	1.00	0.78				10	6	0.78	24	0.63				2.97					2.97
EXTRACCION VE-12	8.00	8.00	1.00	0.47				8	8	0.47	24	0.38				1.79					1.79
EXTRACCION VE-12	16.00	10.00	1.00	4.74				16	10	4.74	24	6.26				29.36					29.36
EXTRACCION VE-12	20.00	10.00	1.00	2.53				20	10	2.53	24	3.86				18.08					18.08
EXTRACCION VE-12	8.00	8.00	1.00	0.05				8	8	0.05	24	0.04				0.19					0.19
EXTRACCION VE-12	10.00	4.00	1.00	0.45				10	4	0.45	24	0.32				1.50					1.50
EXTRACCION VE-12	10.00	4.00	1.00	0.23				10	4	0.23	24	0.16				0.77					0.77
EXTRACCION VE-12	10.00	4.00	1.00	1.18				10	4	1.18	24	0.84				3.94					3.94
EXTRACCION VE-12	10.00	4.00	1.00	0.12				10	4	0.12	24	0.09				0.40					0.40
EXTRACCION VE-13	12.00	6.00	1.00	1.06				12	6	1.06	24	0.97				4.55					4.55
EXTRACCION VE-13	10.00	10.00	1.00	0.07				10	10	0.07	24	0.07				0.33					0.33
EXTRACCION VE-13	10.00	6.00	1.00	1.32				10	6	1.32	24	1.07				5.03					5.03
EXTRACCION VE-13	12.00	10.00	1.00	1.21				12	10	1.21	24	1.35				6.34					6.34
EXTRACCION VE-13	8.00	8.00	1.00	0.04				8	8	0.04	24	0.03				0.15					0.15
EXTRACCION VE-13	8.00	8.00	1.00	0.02				8	8	0.02	24	0.02				0.08					0.08
EXTRACCION VE-13	10.00	4.00	1.00	1.76				10	4	1.76	24	1.25				5.87					5.87
EXTRACCION VE-13	10.00	6.00	1.00	1.78				10	6	1.78	24	1.45				6.79					6.79
EXTRACCION VE-13	12.00	10.00	1.00	12.38				12	10	12.38	24	13.84				64.89					64.89
EXTRACCION VE-13	12.00	10.00	1.00	11.58				12	10	11.58	24	12.94				60.70					60.70
EXTRACCION VE-13	12.00	10.00	1.00	2.51				12	10	2.51	24	2.81				13.16					13.16
EXTRACCION VE-13	12.00	10.00	1.00	21.31				12	10	21.31	24	23.82				111.70					111.70
EXTRACCION VE-13	12.00	10.00	1.00	8.16				12	10	8.16	24	9.12				42.77					42.77
EXTRACCION VE-13	10.00	12.00	1.00	0.94				10	12	0.94	24	1.05				4.93					4.93
EXTRACCION VE-13	10.00	12.00	1.00	0.67				10	12	0.67	24	0.75				3.51					3.51
EXTRACCION VE-14	10.00	4.00	1.00	0.81				10	4	0.81	24	0.58				2.70					2.70
EXTRACCION VE-14	14.00	8.00	1.00	1.72				14	8	1.72	24	1.92				9.02					9.02
EXTRACCION VE-14	8.00	8.00	1.00	0.03				8	8	0.03	24	0.02				0.11					0.11
EXTRACCION VE-14	10.00	4.00	1.00	2.51				10	4	2.51	24	1.79				8.37					8.37
EXTRACCION VE-14	8.00	8.00	1.00	0.03				8	8	0.03	24	0.02				0.11					0.11
EXTRACCION VE-14	8.00	8.00	1.00	0.01				8	8	0.01	24	0.01				0.04					0.04

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-14	10.00	6.00	1.00	0.52				10	6	0.52	24	0.42				1.98					1.98
EXTRACCION VE-14	10.00	4.00	1.00	1.40				10	4	1.40	24	1.00				4.67					4.67
EXTRACCION VE-14	12.00	4.00	1.00	0.97				12	4	0.97	24	0.79				3.70					3.70
EXTRACCION VE-14	10.00	10.00	1.00	0.27				10	10	0.27	24	0.27				1.29					1.29
EXTRACCION VE-14	12.00	6.00	1.00	1.85				12	6	1.85	24	1.69				7.93					7.93
EXTRACCION VE-14	8.00	8.00	1.00	0.19				8	8	0.19	24	0.15				0.72					0.72
EXTRACCION VE-14	10.00	4.00	1.00	1.32				10	4	1.32	24	0.94				4.40					4.40
EXTRACCION VE-14	10.00	4.00	1.00	1.33				10	4	1.33	24	0.95				4.44					4.44
EXTRACCION VE-14	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-14	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-14	10.00	4.00	1.00	1.78				10	4	1.78	24	1.27				5.94					5.94
EXTRACCION VE-14	10.00	4.00	1.00	1.61				10	4	1.61	24	1.15				5.37					5.37
EXTRACCION VE-14	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-14	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-14	16.00	10.00	1.00	0.76				16	10	0.76	24	1.00				4.71					4.71
EXTRACCION VE-14	10.00	4.00	1.00	1.86				10	4	1.86	24	1.32				6.20					6.20
EXTRACCION VE-14	10.00	4.00	1.00	6.80				10	4	6.80	24	4.84				22.68					22.68
EXTRACCION VE-14	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-14	8.00	8.00	1.00	0.32				8	8	0.32	24	0.26				1.22					1.22
EXTRACCION VE-14	16.00	10.00	1.00	10.11				16	10	10.11	24	13.35				62.63					62.63
EXTRACCION VE-14	16.00	10.00	1.00	3.74				16	10	3.74	24	4.94				23.17					23.17
EXTRACCION VE-14	16.00	10.00	1.00	1.01				16	10	1.01	24	1.33				6.26					6.26
EXTRACCION VE-14	16.00	10.00	1.00	0.79				16	10	0.79	24	1.04				4.89					4.89
EXTRACCION VE-14	14.00	10.00	1.00	7.53				14	10	7.53	24	9.18				43.06					43.06
EXTRACCION VE-14	12.00	6.00	1.00	0.13				12	6	0.13	24	0.12				0.56					0.56
EXTRACCION VE-14	12.00	6.00	1.00	0.38				12	6	0.38	24	0.35				1.63					1.63
EXTRACCION VE-15	16.00	16.00	1.00	1.39				16	16	1.39	24	2.26				10.60					10.60
EXTRACCION VE-15	16.00	16.00	1.00	1.29				16	16	1.29	24	2.10				9.84					9.84
EXTRACCION VE-15	16.00	16.00	1.00	1.44				16	16	1.44	24	2.34				10.98					10.98
EXTRACCION VE-15	16.00	16.00	1.00	1.44				16	16	1.44	24	2.34				10.98					10.98
EXTRACCION VE-15	28.00	18.00	1.00	2.61				28	18	2.61	24	6.10				28.60					28.60
EXTRACCION VE-15	28.00	18.00	1.00	3.03				28	18	3.03	24	7.08				33.21					33.21
EXTRACCION VE-15	28.00	18.00	1.00	6.56				28	18	6.56	24	15.33				71.89					71.89
EXTRACCION VE-15	28.00	18.00	1.00	9.09				28	18	9.09	24	21.24				99.62					99.62
EXTRACCION VE-15	28.00	18.00	1.00	0.28				28	18	0.28	24	0.65				3.07					3.07
EXTRACCION VE-15	28.00	18.00	1.00	0.79				28	18	0.79	24	1.85				8.66					8.66
EXTRACCION VE-15	28.00	18.00	1.00	1.09				28	18	1.09	24	2.55				11.95					11.95
EXTRACCION VE-15	28.00	18.00	1.00	0.79				28	18	0.79	24	1.85				8.66					8.66
EXTRACCION VE-15	28.00	18.00	1.00	0.29				28	18	0.29	24	0.68				3.18					3.18
EXTRACCION VE-15	28.00	18.00	1.00	0.29				28	18	0.29	24	0.68				3.18					3.18
EXTRACCION VE-16	10.00	4.00	1.00	1.66				10	4	1.66	24	1.18				5.54					5.54
EXTRACCION VE-16	30.00	14.00	1.00	12.76				30	14	12.76	24	28.52				133.76					133.76
EXTRACCION VE-16	8.00	8.00	1.00	0.67				8	8	0.67	24	0.54				2.55					2.55
EXTRACCION VE-16	8.00	8.00	1.00	0.65				8	8	0.65	24	0.53				2.48					2.48
EXTRACCION VE-16	10.00	4.00	1.00	1.58				10	4	1.58	24	1.12				5.27					5.27
EXTRACCION VE-16	8.00	8.00	1.00	0.67				8	8	0.67	24	0.54				2.55					2.55
EXTRACCION VE-16	20.00	10.00	1.00	4.20				20	10	4.20	24	6.40				30.02					30.02
EXTRACCION VE-16	16.00	6.00	1.00	1.40				16	6	1.40	24	1.56				7.34					7.34
EXTRACCION VE-16	14.00	14.00	1.00	0.62				14	14	0.62	24	0.88				4.14					4.14
EXTRACCION VE-16	14.00	14.00	1.00	0.62				14	14	0.62	24	0.88				4.14					4.14
EXTRACCION VE-16	16.00	6.00	1.00	1.33				16	6	1.33	24	1.49				6.97					6.97
EXTRACCION VE-16	16.00	6.00	1.00	1.46				16	6	1.46	24	1.63				7.65					7.65
EXTRACCION VE-16	14.00	14.00	1.00	0.62				14	14	0.62	24	0.88				4.14					4.14
EXTRACCION VE-16	14.00	14.00	1.00	0.62				14	14	0.62	24	0.88				4.14					4.14
EXTRACCION VE-16	10.00	6.00	1.00	2.45				10	6	2.45	24	1.99				9.34					9.34
EXTRACCION VE-16	10.00	6.00	1.00	3.82				10	6	3.82	24	3.10				14.56					14.56
EXTRACCION VE-16	8.00	8.00	1.00	0.62				8	8	0.62	24	0.50				2.36					2.36
EXTRACCION VE-16	8.00	8.00	1.00	0.62				8	8	0.62	24	0.50				2.36					2.36
EXTRACCION VE-16	14.00	14.00	1.00	0.62				14	14	0.62	24	0.88				4.14					4.14

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-16	16.00	6.00	1.00	1.56				16	6	1.56	24	1.74				8.18					8.18
EXTRACCION VE-16	26.00	12.00	1.00	1.36				26	12	1.36	24	2.63				12.31					12.31
EXTRACCION VE-16	10.00	6.00	1.00	2.49				10	6	2.49	24	2.02				9.49					9.49
EXTRACCION VE-16	10.00	4.00	1.00	0.46				10	4	0.46	24	0.33				1.53					1.53
EXTRACCION VE-16	10.00	4.00	1.00	0.46				10	4	0.46	24	0.33				1.53					1.53
EXTRACCION VE-16	8.00	8.00	1.00	0.67				8	8	0.67	24	0.54				2.55					2.55
EXTRACCION VE-16	8.00	8.00	1.00	0.67				8	8	0.67	24	0.54				2.55					2.55
EXTRACCION VE-16	10.00	4.00	1.00	2.12				10	4	2.12	24	1.51				7.07					7.07
EXTRACCION VE-16	8.00	8.00	1.00	0.67				8	8	0.67	24	0.54				2.55					2.55
EXTRACCION VE-16	10.00	4.00	1.00	2.12				10	4	2.12	24	1.51				7.07					7.07
EXTRACCION VE-16	8.00	8.00	1.00	0.67				8	8	0.67	24	0.54				2.55					2.55
EXTRACCION VE-16	10.00	6.00	1.00	2.21				10	6	2.21	24	1.80				8.42					8.42
EXTRACCION VE-16	10.00	4.00	1.00	5.16				10	4	5.16	24	3.67				17.21					17.21
EXTRACCION VE-16	8.00	8.00	1.00	0.67				8	8	0.67	24	0.54				2.55					2.55
EXTRACCION VE-16	10.00	6.00	1.00	2.12				10	6	2.12	24	1.72				8.08					8.08
EXTRACCION VE-16	12.00	12.00	1.00	3.39				12	12	3.39	24	4.13				19.38					19.38
EXTRACCION VE-16	30.00	14.00	1.00	3.30				30	14	3.30	24	7.38				34.59					34.59
EXTRACCION VE-16	30.00	14.00	1.00	9.19				30	14	9.19	24	20.54				96.34					96.34
EXTRACCION VE-16	30.00	14.00	1.00	0.51				30	14	0.51	24	1.14				5.35					5.35
EXTRACCION VE-16	30.00	14.00	1.00	0.23				30	14	0.23	24	0.51				2.41					2.41
EXTRACCION VE-16	30.00	14.00	1.00	0.99				30	14	0.99	24	2.21				10.38					10.38
EXTRACCION VE-16	16.00	6.00	1.00	2.68				16	6	2.68	24	3.00				14.05					14.05
EXTRACCION VE-16	16.00	6.00	1.00	7.60				16	6	7.60	24	8.49				39.84					39.84
EXTRACCION VE-17	10.00	4.00	1.00	0.83				10	4	0.83	24	0.59				2.77					2.77
EXTRACCION VE-17	16.00	12.00	1.00	6.80				16	12	6.80	24	9.67				45.36					45.36
EXTRACCION VE-17	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-17	10.00	4.00	1.00	0.85				10	4	0.85	24	0.60				2.84					2.84
EXTRACCION VE-17	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-17	10.00	4.00	1.00	2.94				10	4	2.94	24	2.09				9.81					9.81
EXTRACCION VE-17	10.00	4.00	1.00	0.80				10	4	0.80	24	0.57				2.67					2.67
EXTRACCION VE-17	10.00	4.00	1.00	0.80				10	4	0.80	24	0.57				2.67					2.67
EXTRACCION VE-17	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-17	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-17	10.00	6.00	1.00	3.40				10	6	3.40	24	2.76				12.96					12.96
EXTRACCION VE-17	10.00	4.00	1.00	0.75				10	4	0.75	24	0.53				2.50					2.50
EXTRACCION VE-17	10.00	4.00	1.00	0.75				10	4	0.75	24	0.53				2.50					2.50
EXTRACCION VE-17	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-17	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-17	12.00	10.00	1.00	5.20				12	10	5.20	24	5.81				27.26					27.26
EXTRACCION VE-17	10.00	4.00	1.00	0.70				10	4	0.70	24	0.50				2.33					2.33
EXTRACCION VE-17	10.00	4.00	1.00	0.70				10	4	0.70	24	0.50				2.33					2.33
EXTRACCION VE-17	10.00	4.00	1.00	0.70				10	4	0.70	24	0.50				2.33					2.33
EXTRACCION VE-17	10.00	4.00	1.00	0.70				10	4	0.70	24	0.50				2.33					2.33
EXTRACCION VE-17	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-17	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-17	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-17	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-17	14.00	12.00	1.00	4.32				14	12	4.32	24	5.71				26.76					26.76
EXTRACCION VE-17	10.00	4.00	1.00	2.14				10	4	2.14	24	1.52				7.14					7.14
EXTRACCION VE-17	10.00	4.00	1.00	0.26				10	4	0.26	24	0.18				0.87					0.87
EXTRACCION VE-17	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-17	16.00	12.00	1.00	0.50				16	12	0.50	24	0.71				3.34					3.34
EXTRACCION VE-22	10.00	4.00	1.00	1.68				10	4	1.68	24	1.19				5.60					5.60
EXTRACCION VE-22	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-22	10.00	4.00	1.00	0.53				10	4	0.53	24	0.38				1.77					1.77
EXTRACCION VE-22	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-22	8.00	8.00	1.00	0.05				8	8	0.05	24	0.04				0.19					0.19
EXTRACCION VE-22	8.00	8.00	1.00	0.05				8	8	0.05	24	0.04				0.19					0.19
EXTRACCION VE-22	10.00	4.00	1.00	1.20				10	4	1.20	24	0.85				4.00					4.00

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-22	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-22	8.00	8.00	1.00	0.05				8	8	0.05	24	0.04				0.19					0.19
EXTRACCION VE-22	8.00	8.00	1.00	0.10				8	8	0.10	24	0.08				0.38					0.38
EXTRACCION VE-22	8.00	8.00	1.00	0.10				8	8	0.10	24	0.08				0.38					0.38
EXTRACCION VE-22	10.00	4.00	1.00	1.96				10	4	1.96	24	1.39				6.54					6.54
EXTRACCION VE-22	10.00	4.00	1.00	0.86				10	4	0.86	24	0.61				2.87					2.87
EXTRACCION VE-22	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-22	12.00	6.00	1.00	4.47				12	6	4.47	24	4.09				19.17					19.17
EXTRACCION VE-22	10.00	10.00	1.00	0.10				10	10	0.10	24	0.10				0.48					0.48
EXTRACCION VE-22	14.00	8.00	1.00	2.75				14	8	2.75	24	3.07				14.41					14.41
EXTRACCION VE-22	16.00	10.00	1.00	5.89				16	10	5.89	24	7.78				36.49					36.49
EXTRACCION VE-22	10.00	4.00	1.00	1.74				10	4	1.74	24	1.24				5.80					5.80
EXTRACCION VE-22	10.00	4.00	1.00	2.98				10	4	2.98	24	2.12				9.94					9.94
EXTRACCION VE-22	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-22	10.00	4.00	1.00	1.07				10	4	1.07	24	0.76				3.57					3.57
EXTRACCION VE-22	10.00	4.00	1.00	1.39				10	4	1.39	24	0.99				4.64					4.64
EXTRACCION VE-22	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-22	10.00	4.00	1.00	1.85				10	4	1.85	24	1.32				6.17					6.17
EXTRACCION VE-22	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-22	8.00	8.00	1.00	0.07				8	8	0.07	24	0.06				0.27					0.27
EXTRACCION VE-22	12.00	8.00	1.00	3.56				12	8	3.56	24	3.62				16.96					16.96
EXTRACCION VE-22	20.00	12.00	1.00	4.50				20	12	4.50	24	7.32				34.31					34.31
EXTRACCION VE-22	10.00	10.00	1.00	6.00				10	10	6.00	24	6.10				28.59					28.59
EXTRACCION VE-22	22.00	12.00	1.00	0.65				22	12	0.65	24	1.12				5.27					5.27
EXTRACCION VE-22	8.00	8.00	1.00	0.02				8	8	0.02	24	0.02				0.08					0.08
EXTRACCION VE-22	10.00	6.00	1.00	3.08				10	6	3.08	24	2.50				11.74					11.74
EXTRACCION VE-22	20.00	12.00	1.00	8.96				20	12	8.96	24	14.57				68.31					68.31
EXTRACCION VE-22	10.00	4.00	1.00	4.68				10	4	4.68	24	3.33				15.61					15.61
EXTRACCION VE-22	8.00	8.00	1.00	0.12				8	8	0.12	24	0.10				0.46					0.46
EXTRACCION VE-22	22.00	12.00	1.00	0.90				22	12	0.90	24	1.55				7.29					7.29
EXTRACCION VE-22	22.00	12.00	1.00	0.47				22	12	0.47	24	0.81				3.81					3.81
EXTRACCION VE-22	22.00	12.00	1.00	0.58				22	12	0.58	24	1.00				4.70					4.70
EXTRACCION VE-23	14.00	6.00	1.00	1.80				14	6	1.80	24	1.83				8.58					8.58
EXTRACCION VE-23	12.00	12.00	1.00	0.07				12	12	0.07	24	0.09				0.40					0.40
EXTRACCION VE-23	14.00	6.00	1.00	0.59				14	6	0.59	24	0.60				2.81					2.81
EXTRACCION VE-23	26.00	10.00	1.00	2.29				26	10	2.29	24	4.19				19.64					19.64
EXTRACCION VE-23	12.00	12.00	1.00	0.05				12	12	0.05	24	0.06				0.29					0.29
EXTRACCION VE-23	14.00	6.00	1.00	0.76				14	6	0.76	24	0.77				3.62					3.62
EXTRACCION VE-23	12.00	4.00	1.00	2.37				12	4	2.37	24	1.93				9.03					9.03
EXTRACCION VE-23	10.00	10.00	1.00	0.10				10	10	0.10	24	0.10				0.48					0.48
EXTRACCION VE-23	12.00	8.00	1.00	2.37				12	8	2.37	24	2.41				11.29					11.29
EXTRACCION VE-23	10.00	10.00	1.00	0.07				10	10	0.07	24	0.07				0.33					0.33
EXTRACCION VE-23	12.00	12.00	1.00	0.02				12	12	0.02	24	0.02				0.11					0.11
EXTRACCION VE-23	18.00	8.00	1.00	3.36				18	8	3.36	24	4.44				20.81					20.81
EXTRACCION VE-23D	26.00	10.00	1.00	0.15				26	10	0.15	24	0.27				1.29					1.29
RETORNO UFCO-06	43.00	11.00	1.00	0.56				43	11	0.56	22										
RETORNO UFCO-06	10.00	10.00	1.00	0.19		E		10	10	0.19	24	0.19	0.23		0.23	0.91					0.91
RETORNO UFCO-07	43.00	11.00	1.00	0.40		E		43	11	0.40	22	1.10	1.18		1.18	6.17				6.17	
RETORNO UFCO-07	10.00	4.00	1.00	1.79		E		10	4	1.79	24	1.27	1.64		1.64	5.97					5.97
RETORNO UFCO-07	10.00	4.00	1.00	0.40		E		10	4	0.40	24	0.28	0.37		0.37	1.33					1.33
RETORNO UFCO-07	8.00	8.00	1.00	0.32		E		8	8	0.32	24	0.26	0.33		0.33	1.22					1.22
RETORNO UFCO-08	43.00	11.00	1.00	0.40		E		43	11	0.40	22	1.10	1.18		1.18	6.17				6.17	
RETORNO UFCO-08	10.00	4.00	1.00	1.79		E		10	4	1.79	24	1.27	1.64		1.64	5.97					5.97
RETORNO UFCO-08	10.00	4.00	1.00	0.31		E		10	4	0.31	24	0.22	0.28		0.28	1.03					1.03
RETORNO UFCO-08	8.00	8.00	1.00	0.32		E		8	8	0.32	24	0.26	0.33		0.33	1.22					1.22
RETORNO UFCO-09A	43.00	11.00	1.00	0.68		E		43	11	0.68	22	1.87	2.00		2.00	10.48				10.48	
RETORNO UFCO-09A	16.00	16.00	1.00	0.19		E		16	16	0.19	24	0.31	0.35		0.35	1.45					1.45
RETORNO UFCO-09B	43.00	11.00	1.00	0.68		E		43	11	0.68	22	1.87	2.00		2.00	10.48				10.48	
RETORNO UFCO-09B	16.00	16.00	1.00	0.19		E		16	16	0.19	24	0.31	0.35		0.35	1.45					1.45

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
RETORNO UFCO-12	43.00	11.00	1.00	0.54		E		43	11	0.54	22	1.48	1.59		1.59	8.33				8.33	
RETORNO UFCO-12	14.00	6.00	1.00	4.73		E		14	6	4.73	24	4.81	5.77		5.77	22.54					22.54
RETORNO UFCO-12	12.00	12.00	1.00	0.40		E		12	12	0.40	24	0.49	0.57		0.57	2.29					2.29
RETORNO UFCO-12	12.00	12.00	1.00	0.40		E		12	12	0.40	24	0.49	0.57		0.57	2.29					2.29
RETORNO UFCO-12	14.00	6.00	1.00	0.35		E		14	6	0.35	24	0.36	0.43		0.43	1.67					1.67
RETORNO UFCO-13	43.00	11.00	1.00	0.59		E		43	11	0.59	22	1.62	1.74		1.74	9.10				9.10	
RETORNO UFCO-13	12.00	6.00	1.00	1.83		E		12	6	1.83	24	1.67	2.05		2.05	7.85					7.85
RETORNO UFCO-13	12.00	6.00	1.00	2.60		E		12	6	2.60	24	2.38	2.91		2.91	11.15					11.15
RETORNO UFCO-13	10.00	10.00	1.00	0.42		E		10	10	0.42	24	0.43	0.51		0.51	2.00					2.00
RETORNO UFCO-16	43.00	11.00	1.00	0.38		E		43	11	0.38	22	1.04	1.12		1.12	5.86				5.86	
RETORNO UFCO-16	10.00	4.00	1.00	1.54		E		10	4	1.54	24	1.10	1.41		1.41	5.14					5.14
RETORNO UFCO-16	10.00	4.00	1.00	0.18		E		10	4	0.18	24	0.13	0.16		0.16	0.60					0.60
RETORNO UFCO-16	8.00	8.00	1.00	0.12		E		8	8	0.12	24	0.10	0.12		0.12	0.46					0.46
RETORNO UFCO-18	43.00	11.00	1.00	0.38		E		43	11	0.38	22	1.04	1.12		1.12	5.86				5.86	
RETORNO UFCO-18	10.00	4.00	1.00	1.29		E		10	4	1.29	24	0.92	1.18		1.18	4.30					4.30
RETORNO UFCO-18	10.00	4.00	1.00	0.31		E		10	4	0.31	24	0.22	0.28		0.28	1.03					1.03
RETORNO UFCO-18	8.00	8.00	1.00	0.32		E		8	8	0.32	24	0.26	0.33		0.33	1.22					1.22
RETORNO UFCO-20	43.00	11.00	1.00	0.40		E		43	11	0.40	22	1.10	1.18		1.18	6.17				6.17	
RETORNO UFCO-20	12.00	6.00	1.00	1.40		E		12	6	1.40	24	1.28	1.56		1.56	6.00					6.00
RETORNO UFCO-20	12.00	6.00	1.00	0.22		E		12	6	0.22	24	0.20	0.25		0.25	0.94					0.94
RETORNO UFCO-20	10.00	10.00	1.00	0.42		E		10	10	0.42	24	0.43	0.51		0.51	2.00					2.00
RETORNO UMA-01	16.00	6.00	1.00	1.75		E		16	6	1.75	24	1.96	2.31		2.31	9.17					9.17
RETORNO UMA-01	14.00	14.00	1.00	0.07		E		14	14	0.07	24	0.10	0.11		0.11	0.47					0.47
RETORNO UMA-01	34.00	24.00	1.00	0.51		E		34	24	0.51	22	1.50	1.61		1.61	8.44				8.44	
RETORNO UMA-01	16.00	6.00	1.00	2.03		E		16	6	2.03	24	2.27	2.68		2.68	10.64					10.64
RETORNO UMAE-06	18.00	8.00	1.00	7.10		E		18	8	7.10	24	9.38	10.82		10.82	43.98					43.98
RETORNO UMAE-06	18.00	8.00	1.00	2.72		E		18	8	2.72	24	3.59	4.15		4.15	16.85					16.85
RETORNO UMAE-06	16.00	16.00	1.00	0.02		E		16	16	0.02	24	0.03	0.04		0.04	0.15					0.15
RETORNO UMAE-06	18.00	8.00	1.00	4.95		E		18	8	4.95	24	6.54	7.54		7.54	30.66					30.66
RETORNO UMAE-06	18.00	8.00	1.00	5.43		E		18	8	5.43	24	7.17	8.28		8.28	33.64					33.64
RETORNO UMAE-07	10.00	4.00	1.00	0.99		E		10	4	0.99	24	0.70	0.91		0.91	3.30					3.30
RETORNO UMAE-07	22.00	14.00	1.00	1.20		E		22	14	1.20	24	2.19	2.44		2.44	10.29					10.29
RETORNO UMAE-07	14.00	14.00	1.00	0.17		E		14	14	0.17	24	0.24	0.28		0.28	1.13					1.13
RETORNO UMAE-07	14.00	14.00	1.00	0.17		E		14	14	0.17	24	0.24	0.28		0.28	1.13					1.13
RETORNO UMAE-07	14.00	14.00	1.00	0.09		E		14	14	0.09	24	0.13	0.15		0.15	0.60					0.60
RETORNO UMAE-07	14.00	14.00	1.00	0.09		E		14	14	0.09	24	0.13	0.15		0.15	0.60					0.60
RETORNO UMAE-07	8.00	8.00	1.00	0.32		E		8	8	0.32	24	0.26	0.33		0.33	1.22					1.22
RETORNO UMAE-07	18.00	6.00	1.00	3.06		E		18	6	3.06	24	3.73	4.35		4.35	17.50					17.50
RETORNO UMAE-07	18.00	6.00	1.00	0.56		E		18	6	0.56	24	0.68	0.80		0.80	3.20					3.20
RETORNO UMAE-07	20.00	14.00	1.00	3.67		E		20	14	3.67	24	6.34	7.08		7.08	29.73					29.73
RETORNO UMAE-07	18.00	6.00	1.00	0.08		E		18	6	0.08	24	0.10	0.11		0.11	0.46					0.46
RETORNO UMAE-07	22.00	14.00	1.00	2.35		E		22	14	2.35	24	4.30	4.78		4.78	20.16					20.16
RETORNO UMAE-07	22.00	14.00	1.00	17.53		E		22	14	17.53	24	32.06	35.62		35.62	150.36					150.36
RETORNO UMAE-07	22.00	14.00	1.00	2.19		E		22	14	2.19	24	4.01	4.45		4.45	18.78					18.78
RETORNO UMAE-07	18.00	6.00	1.00	0.27		E		18	6	0.27	24	0.33	0.38		0.38	1.54					1.54
RETORNO UMAE-07	14.00	6.00	1.00	1.42		E		14	6	1.42	24	1.44	1.73		1.73	6.77					6.77
RETORNO UMAE-07	12.00	12.00	1.00	0.27		E		12	12	0.27	24	0.33	0.38		0.38	1.54					1.54
RETORNO UMAE-07	12.00	12.00	1.00	0.27		E		12	12	0.27	24	0.33	0.38		0.38	1.54					1.54
RETORNO UMAE-07	12.00	12.00	1.00	0.20		E		12	12	0.20	24	0.24	0.28		0.28	1.14					1.14
RETORNO UMAE-07	14.00	6.00	1.00	3.38		E		14	6	3.38	24	3.43	4.12		4.12	16.11					16.11
RETORNO UMAE-07	16.00	12.00	1.00	0.83		E		16	12	0.83	24	1.18	1.35		1.35	5.54					5.54
RETORNO UMAE-07	12.00	12.00	1.00	0.20		E		12	12	0.20	24	0.24	0.28		0.28	1.14					1.14
RETORNO UMAE-07	12.00	12.00	1.00	0.20		E		12	12	0.20	24	0.24	0.28		0.28	1.14					1.14
RETORNO UMAE-07	16.00	12.00	1.00	0.24		E		16	12	0.24	24	0.34	0.39		0.39	1.60					1.60
RETORNO UMAE-07	16.00	12.00	1.00	0.54		E		16	12	0.54	24	0.77	0.88		0.88	3.60					3.60
RETORNO UMAE-07	24.00	12.00	1.00	2.03		E		24	12	2.03	24	3.71	4.12		4.12	17.41					17.41
RETORNO UMAE-07	12.00	12.00	1.00	0.20		E		12	12	0.20	24	0.24	0.28		0.28	1.14					1.14
RETORNO UMAE-07	22.00	12.00	1.00	2.91		E		22	12	2.91	24	5.03	5.62		5.62	23.57					23.57
RETORNO UMAE-07	22.00	14.00	1.00	5.64		E		22	14	5.64	24	10.31	11.46		11.46	48.37					48.37

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
RETORNO UMAE-07	8.00	8.00	1.00	0.17		E		8	8	0.17	24	0.14	0.17		0.17	0.65					0.65
RETORNO UMAE-07	10.00	4.00	1.00	1.35		E		10	4	1.35	24	0.96	1.23		1.23	4.50					4.50
RETORNO UMAE-07	22.00	14.00	1.00	18.66		E		22	14	18.66	24	34.13	37.92		37.92	160.05					160.05
RETORNO UMAE-07	22.00	14.00	1.00	2.19		E		22	14	2.19	24	4.01	4.45		4.45	18.78					18.78
RETORNO UMAE-07	22.00	14.00	1.00	1.34		E		22	14	1.34	24	2.45	2.72		2.72	11.49					11.49
RETORNO UMAE-07	22.00	14.00	1.00	1.34		E		22	14	1.34	24	2.45	2.72		2.72	11.49					11.49
RETORNO UMAE-07	20.00	16.00	1.00	1.59		E		20	16	1.59	24	2.91	3.23		3.23	13.64					13.64
RETORNO UMAE-07	20.00	16.00	1.00	2.11		E		20	16	2.11	24	3.86	4.29		4.29	18.10					18.10
RETORNO UMAE-07	20.00	16.00	1.00	0.46		E		20	16	0.46	24	0.84	0.93		0.93	3.95					3.95
RETORNO UMAE-08	18.00	8.00	1.00	6.22		E		18	8	6.22	24	8.22	9.48		9.48	38.53					38.53
RETORNO UMAE-08	18.00	8.00	1.00	18.64		E		18	8	18.64	24	24.62	28.41		28.41	115.47					115.47
RETORNO UMAE-08	8.00	18.00	1.00	1.17		E		8	18	1.17	24	1.55	1.78		1.78	7.25					7.25
RETORNO UMAE-08	12.00	12.00	1.00	0.05		E		12	12	0.05	24	0.06	0.07		0.07	0.29					0.29
RETORNO UMAE-08	12.00	12.00	1.00	0.05		E		12	12	0.05	24	0.06	0.07		0.07	0.29					0.29
RETORNO UMAE-08	12.00	12.00	1.00	0.05		E		12	12	0.05	24	0.06	0.07		0.07	0.29					0.29
RETORNO UMAE-08	12.00	12.00	1.00	0.05		E		12	12	0.05	24	0.06	0.07		0.07	0.29					0.29
RETORNO UMAE-08	18.00	8.00	1.00	2.24		E		18	8	2.24	24	2.96	3.41		3.41	13.88					13.88
RETORNO UMAE-08	18.00	8.00	1.00	6.96		E		18	8	6.96	24	9.19	10.61		10.61	43.11					43.11
RETORNO UMAE-15	10.00	4.00	1.00	1.80		E		10	4	1.80	24	1.28	1.65		1.65	6.00					6.00
RETORNO UMAE-15	10.00	4.00	1.00	1.47		E		10	4	1.47	24	1.05	1.34		1.34	4.90					4.90
RETORNO UMAE-15	20.00	12.00	1.00	2.83		E		20	12	2.83	24	4.60	5.18		5.18	21.58					21.58
RETORNO UMAE-15	8.00	8.00	1.00	0.33		E		8	8	0.33	24	0.27	0.34		0.34	1.26					1.26
RETORNO UMAE-15	8.00	8.00	1.00	0.33		E		8	8	0.33	24	0.27	0.34		0.34	1.26					1.26
RETORNO UMAE-15	14.00	6.00	1.00	0.93		E		14	6	0.93	24	0.94	1.13		1.13	4.43					4.43
RETORNO UMAE-15	14.00	6.00	1.00	0.24		E		14	6	0.24	24	0.24	0.29		0.29	1.14					1.14
RETORNO UMAE-15	12.00	12.00	1.00	0.39		E		12	12	0.39	24	0.48	0.55		0.55	2.23					2.23
RETORNO UMAE-15	10.00	6.00	1.00	0.38		E		10	6	0.38	24	0.31	0.39		0.39	1.45					1.45
RETORNO UMAE-15	14.00	14.00	1.00	0.34		E		14	14	0.34	24	0.48	0.55		0.55	2.27					2.27
RETORNO UMAE-15	14.00	14.00	1.00	0.34		E		14	14	0.34	24	0.48	0.55		0.55	2.27					2.27
RETORNO UMAE-15	10.00	6.00	1.00	14.26		E		10	6	14.26	24	11.59	14.49		14.49	54.36					54.36
RETORNO UMAE-15	10.00	6.00	1.00	1.73		E		10	6	1.73	24	1.41	1.76		1.76	6.59					6.59
RETORNO UMAE-15	10.00	6.00	1.00	0.09		E		10	6	0.09	24	0.07	0.09		0.09	0.34					0.34
RETORNO UMAE-15	20.00	12.00	1.00	2.45		E		20	12	2.45	24	3.98	4.48		4.48	18.68					18.68
RETORNO UMAE-15	20.00	12.00	1.00	0.18		E		20	12	0.18	24	0.29	0.33		0.33	1.37					1.37
RETORNO UMAE-15	20.00	12.00	1.00	3.11		E		20	12	3.11	24	5.06	5.69		5.69	23.71					23.71
RETORNO UMAE-15	18.00	49.00	1.00	0.31		E		18	49	0.31	22	1.06	1.12		1.12	5.93				5.93	
RETORNO UMAE-19	8.00	8.00	1.00	0.19		E		8	8	0.19	24	0.15	0.19		0.19	0.72					0.72
RETORNO UMAE-19	8.00	8.00	1.00	0.14		E		8	8	0.14	24	0.11	0.14		0.14	0.53					0.53
RETORNO UMAE-19	8.00	8.00	1.00	0.14		E		8	8	0.14	24	0.11	0.14		0.14	0.53					0.53
RETORNO UMAE-19	16.00	10.00	1.00	2.66		E		16	10	2.66	24	3.51	4.05		4.05	16.48					16.48
RETORNO UMAE-19	16.00	10.00	1.00	4.19		E		16	10	4.19	24	5.53	6.39		6.39	25.96					25.96
RETORNO UMAE-19	8.00	8.00	1.00	0.14		E		8	8	0.14	24	0.11	0.14		0.14	0.53					0.53
RETORNO UMAE-19	8.00	8.00	1.00	0.09		E		8	8	0.09	24	0.07	0.09		0.09	0.34					0.34
RETORNO UMAE-19	8.00	8.00	1.00	0.09		E		8	8	0.09	24	0.07	0.09		0.09	0.34					0.34
RETORNO UMAE-19	10.00	4.00	1.00	6.03		E		10	4	6.03	24	4.29	5.51		5.51	20.11					20.11
RETORNO UMAE-19	12.00	8.00	1.00	5.64		E		12	8	5.64	24	5.73	6.88		6.88	26.87					26.87
RETORNO UMAE-19	8.00	8.00	1.00	0.07		E		8	8	0.07	24	0.06	0.07		0.07	0.27					0.27
RETORNO UMAE-19	8.00	8.00	1.00	0.07		E		8	8	0.07	24	0.06	0.07		0.07	0.27					0.27
RETORNO UMAE-19	16.00	8.00	1.00	4.90		E		16	8	4.90	24	5.97	6.97		6.97	28.02					28.02
RETORNO UMAE-19	16.00	8.00	1.00	7.71		E		16	8	7.71	24	9.40	10.97		10.97	44.09					44.09
RETORNO UMAE-19	8.00	8.00	1.00	0.14		E		8	8	0.14	24	0.11	0.14		0.14	0.53					0.53
RETORNO UMAE-19	8.00	8.00	1.00	0.14		E		8	8	0.14	24	0.11	0.14		0.14	0.53					0.53
RETORNO UMAE-19	10.00	4.00	1.00	3.18		E		10	4	3.18	24	2.26	2.91		2.91	10.61					10.61
RETORNO UMAE-19	12.00	8.00	1.00	3.93		E		12	8	3.93	24	3.99	4.79		4.79	18.73					18.73
RETORNO UMAE-19	12.00	12.00	1.00	5.54		E		12	12	5.54	24	6.75	7.88		7.88	31.68					31.68
RETORNO UMAE-19	12.00	12.00	1.00	4.29		E		12	12	4.29	24	5.23	6.10		6.10	24.53					24.53
RETORNO UMAE-19	12.00	12.00	1.00	1.43		E		12	12	1.43	24	1.74	2.03		2.03	8.18					8.18
SUMINISTRO UFCO-06	10.00	4.00	1.00	3.41		E		10	4	3.41	24	2.43	3.12		3.12	11.37					11.37
SUMINISTRO UFCO-06	9.00	9.00	1.00	0.12		E		9	9	0.12	24	0.11	0.13		0.13	0.51					0.51

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
SUMINISTRO UFCO-06	10.00	8.00	1.00	2.34		E		10	8	2.34	24	2.14	2.62		2.62	10.04					10.04
SUMINISTRO UFCO-06	9.00	9.00	1.00	0.07		E		9	9	0.07	24	0.06	0.08		0.08	0.30					0.30
SUMINISTRO UFCO-06	12.00	8.00	1.00	1.46		E		12	8	1.46	24	1.48	1.78		1.78	6.96					6.96
SUMINISTRO UFCO-06	9.00	9.00	1.00	0.20		E		9	9	0.20	24	0.18	0.22		0.22	0.86					0.86
SUMINISTRO UFCO-06	10.00	8.00	1.00	0.43		E		10	8	0.43	24	0.39	0.48		0.48	1.84					1.84
SUMINISTRO UFCO-06	10.00	8.00	1.00	0.15		E		10	8	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UFCO-07	12.00	8.00	1.00	3.06		E		12	8	3.06	24	3.11	3.73		3.73	14.58					14.58
SUMINISTRO UFCO-07	12.00	12.00	1.00	0.23		E		12	12	0.23	24	0.28	0.33		0.33	1.32					1.32
SUMINISTRO UFCO-08	10.00	6.00	1.00	3.06		E		10	6	3.06	24	2.49	3.11		3.11	11.66					11.66
SUMINISTRO UFCO-08	9.00	9.00	1.00	0.28		E		9	9	0.28	24	0.26	0.31		0.31	1.20					1.20
SUMINISTRO UFCO-09A	12.00	6.00	1.00	2.45		E		12	6	2.45	24	2.24	2.74		2.74	10.51					10.51
SUMINISTRO UFCO-09A	12.00	12.00	1.00	0.25		E		12	12	0.25	24	0.30	0.36		0.36	1.43					1.43
SUMINISTRO UFCO-09A	18.00	8.00	1.00	2.45		E		18	8	2.45	24	3.24	3.73		3.73	15.18					15.18
SUMINISTRO UFCO-09A	12.00	12.00	1.00	0.23		E		12	12	0.23	24	0.28	0.33		0.33	1.32					1.32
SUMINISTRO UFCO-09A	18.00	8.00	1.00	0.75		E		18	8	0.75	24	0.99	1.14		1.14	4.65					4.65
SUMINISTRO UFCO-09B	12.00	6.00	1.00	2.45		E		12	6	2.45	24	2.24	2.74		2.74	10.51					10.51
SUMINISTRO UFCO-09B	18.00	8.00	1.00	1.41		E		18	8	1.41	24	1.86	2.15		2.15	8.73					8.73
SUMINISTRO UFCO-09B	18.00	8.00	1.00	1.27		E		18	8	1.27	24	1.68	1.94		1.94	7.87					7.87
SUMINISTRO UFCO-09B	12.00	12.00	1.00	0.25		E		12	12	0.25	24	0.30	0.36		0.36	1.43					1.43
SUMINISTRO UFCO-09B	12.00	12.00	1.00	0.23		E		12	12	0.23	24	0.28	0.33		0.33	1.32					1.32
SUMINISTRO UFCO-12	20.00	8.00	1.00	2.13		E		20	8	2.13	24	3.03	3.46		3.46	14.21					14.21
SUMINISTRO UFCO-12	15.00	15.00	1.00	0.37		E		15	15	0.37	24	0.56	0.64		0.64	2.64					2.64
SUMINISTRO UFCO-12	10.00	4.00	1.00	1.17		E		10	4	1.17	24	0.83	1.07		1.07	3.90					3.90
SUMINISTRO UFCO-12	10.00	4.00	1.00	3.65		E		10	4	3.65	24	2.60	3.34		3.34	12.17					12.17
SUMINISTRO UFCO-12	9.00	9.00	1.00	0.42		E		9	9	0.42	24	0.38	0.47		0.47	1.80					1.80
SUMINISTRO UFCO-12	18.00	6.00	1.00	2.68		E		18	6	2.68	24	3.27	3.81		3.81	15.32					15.32
SUMINISTRO UFCO-12	15.00	15.00	1.00	0.35		E		15	15	0.35	24	0.53	0.60		0.60	2.50					2.50
SUMINISTRO UFCO-13	14.00	6.00	1.00	1.55		E		14	6	1.55	24	1.57	1.89		1.89	7.39					7.39
SUMINISTRO UFCO-13	12.00	12.00	1.00	0.37		E		12	12	0.37	24	0.45	0.53		0.53	2.12					2.12
SUMINISTRO UFCO-13	14.00	6.00	1.00	0.30		E		14	6	0.30	24	0.30	0.37		0.37	1.43					1.43
SUMINISTRO UFCO-13	10.00	4.00	1.00	4.25		E		10	4	4.25	24	3.02	3.89		3.89	14.18					14.18
SUMINISTRO UFCO-13	10.00	4.00	1.00	2.33		E		10	4	2.33	24	1.66	2.13		2.13	7.77					7.77
SUMINISTRO UFCO-13	9.00	9.00	1.00	0.42		E		9	9	0.42	24	0.38	0.47		0.47	1.80					1.80
SUMINISTRO UFCO-13	16.00	6.00	1.00	1.27		E		16	6	1.27	24	1.42	1.68		1.68	6.66					6.66
SUMINISTRO UFCO-16	10.00	4.00	1.00	1.36		E		10	4	1.36	24	0.97	1.24		1.24	4.54					4.54
SUMINISTRO UFCO-16	8.00	8.00	1.00	0.12		E		8	8	0.12	24	0.10	0.12		0.12	0.46					0.46
SUMINISTRO UFCO-18	10.00	4.00	1.00	1.26		E		10	4	1.26	24	0.90	1.15		1.15	4.20					4.20
SUMINISTRO UFCO-18	8.00	8.00	1.00	0.32		E		8	8	0.32	24	0.26	0.33		0.33	1.22					1.22
SUMINISTRO UFCO-20	12.00	6.00	1.00	1.30		E		12	6	1.30	24	1.19	1.45		1.45	5.58					5.58
SUMINISTRO UFCO-20	10.00	10.00	1.00	0.42		E		10	10	0.42	24	0.43	0.51		0.51	2.00					2.00
SUMINISTRO UMA-01	10.00	4.00	1.00	3.00		E		10	4	3.00	24	2.13	2.74		2.74	10.01					10.01
SUMINISTRO UMA-01	10.00	4.00	1.00	2.79		E		10	4	2.79	24	1.98	2.55		2.55	9.31					9.31
SUMINISTRO UMA-01	16.00	10.00	1.00	2.83		E		16	10	2.83	24	3.74	4.31		4.31	17.53					17.53
SUMINISTRO UMA-01	9.00	9.00	1.00	0.10		E		9	9	0.10	24	0.09	0.11		0.11	0.43					0.43
SUMINISTRO UMA-01	10.00	8.00	1.00	3.09		E		10	8	3.09	24	2.83	3.45		3.45	13.25					13.25
SUMINISTRO UMA-01	9.00	9.00	1.00	0.08		E		9	9	0.08	24	0.07	0.09		0.09	0.34					0.34
SUMINISTRO UMA-01	10.00	4.00	1.00	1.83		E		10	4	1.83	24	1.30	1.67		1.67	6.10					6.10
SUMINISTRO UMA-01	9.00	9.00	1.00	0.10		E		9	9	0.10	24	0.09	0.11		0.11	0.43					0.43
SUMINISTRO UMA-01	10.00	4.00	1.00	1.00		E		10	4	1.00	24	0.71	0.91		0.91	3.34					3.34
SUMINISTRO UMA-01	9.00	9.00	1.00	0.10		E		9	9	0.10	24	0.09	0.11		0.11	0.43					0.43
SUMINISTRO UMA-01	10.00	4.00	1.00	0.88		E		10	4	0.88	24	0.63	0.80		0.80	2.94					2.94
SUMINISTRO UMA-01	9.00	9.00	1.00	0.10		E		9	9	0.10	24	0.09	0.11		0.11	0.43					0.43
SUMINISTRO UMA-01	14.00	10.00	1.00	1.48		E		14	10	1.48	24	1.80	2.11		2.11	8.46					8.46
SUMINISTRO UMA-01	16.00	10.00	1.00	0.77		E		16	10	0.77	24	1.02	1.17		1.17	4.77					4.77
SUMINISTRO UMA-01	10.00	4.00	1.00	0.59		E		10	4	0.59	24	0.42	0.54		0.54	1.97					1.97
SUMINISTRO UMA-01	10.00	6.00	1.00	2.64		E		10	6	2.64	24	2.15	2.68		2.68	10.06					10.06
SUMINISTRO UMA-01	12.00	8.00	1.00	2.07		E		12	8	2.07	24	2.10	2.52		2.52	9.86					9.86
SUMINISTRO UMA-01	10.00	4.00	1.00	0.52		E		10	4	0.52	24	0.37	0.48		0.48	1.73					1.73
SUMINISTRO UMA-01	9.00	9.00	1.00	0.10		E		9	9	0.10	24	0.09	0.11		0.11	0.43					0.43

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
SUMINISTRO UMA-01	10.00	4.00	1.00	1.81		E		10	4	1.81	24	1.29	1.66		1.66	6.04					6.04
SUMINISTRO UMA-01	10.00	6.00	1.00	2.39		E		10	6	2.39	24	1.94	2.43		2.43	9.11					9.11
SUMINISTRO UMA-01	9.00	9.00	1.00	0.15		E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMA-01	16.00	10.00	1.00	0.81		E		16	10	0.81	24	1.07	1.23		1.23	5.02					5.02
SUMINISTRO UMA-01	16.00	10.00	1.00	2.50		E		16	10	2.50	24	3.30	3.81		3.81	15.49					15.49
SUMINISTRO UMA-01	16.00	10.00	1.00	0.27		E		16	10	0.27	24	0.36	0.41		0.41	1.67					1.67
SUMINISTRO UMA-01	10.00	4.00	1.00	1.28		E		10	4	1.28	24	0.91	1.17		1.17	4.27					4.27
SUMINISTRO UMA-01	10.00	4.00	1.00	1.79		E		10	4	1.79	24	1.27	1.64		1.64	5.97					5.97
SUMINISTRO UMA-01	10.00	4.00	1.00	0.42		E		10	4	0.42	24	0.30	0.38		0.38	1.40					1.40
SUMINISTRO UMA-01	10.00	4.00	1.00	0.35		E		10	4	0.35	24	0.25	0.32		0.32	1.17					1.17
SUMINISTRO UMA-01	10.00	4.00	1.00	0.34		E		10	4	0.34	24	0.24	0.31		0.31	1.13					1.13
SUMINISTRO UMAE-06	16.00	10.00	1.00	2.90		E		16	10	2.90	24	3.83	4.42		4.42	17.96					17.96
SUMINISTRO UMAE-06	16.00	10.00	1.00	2.43		E		16	10	2.43	24	3.21	3.70		3.70	15.05					15.05
SUMINISTRO UMAE-06	10.00	4.00	1.00	2.36		E		10	4	2.36	24	1.68	2.16		2.16	7.87					7.87
SUMINISTRO UMAE-06	16.00	10.00	1.00	0.70		E		16	10	0.70	24	0.92	1.07		1.07	4.34					4.34
SUMINISTRO UMAE-06	9.00	9.00	1.00	0.08		E		9	9	0.08	24	0.07	0.09		0.09	0.34					0.34
SUMINISTRO UMAE-06	10.00	4.00	1.00	1.18		E		10	4	1.18	24	0.84	1.08		1.08	3.94					3.94
SUMINISTRO UMAE-06	9.00	9.00	1.00	0.08		E		9	9	0.08	24	0.07	0.09		0.09	0.34					0.34
SUMINISTRO UMAE-06	10.00	4.00	1.00	1.18		E		10	4	1.18	24	0.84	1.08		1.08	3.94					3.94
SUMINISTRO UMAE-06	9.00	9.00	1.00	0.08		E		9	9	0.08	24	0.07	0.09		0.09	0.34					0.34
SUMINISTRO UMAE-06	10.00	4.00	1.00	3.40		E		10	4	3.40	24	2.42	3.11		3.11	11.34					11.34
SUMINISTRO UMAE-06	10.00	4.00	1.00	1.16		E		10	4	1.16	24	0.82	1.06		1.06	3.87					3.87
SUMINISTRO UMAE-06	10.00	4.00	1.00	1.16		E		10	4	1.16	24	0.82	1.06		1.06	3.87					3.87
SUMINISTRO UMAE-06	9.00	9.00	1.00	0.08		E		9	9	0.08	24	0.07	0.09		0.09	0.34					0.34
SUMINISTRO UMAE-06	9.00	9.00	1.00	0.08		E		9	9	0.08	24	0.07	0.09		0.09	0.34					0.34
SUMINISTRO UMAE-06	10.00	4.00	1.00	1.16		E		10	4	1.16	24	0.82	1.06		1.06	3.87					3.87
SUMINISTRO UMAE-06	10.00	4.00	1.00	1.16		E		10	4	1.16	24	0.82	1.06		1.06	3.87					3.87
SUMINISTRO UMAE-06	16.00	8.00	1.00	4.98		E		16	8	4.98	24	6.07	7.08		7.08	28.48					28.48
SUMINISTRO UMAE-06	9.00	9.00	1.00	0.08		E		9	9	0.08	24	0.07	0.09		0.09	0.34					0.34
SUMINISTRO UMAE-06	9.00	9.00	1.00	0.08		E		9	9	0.08	24	0.07	0.09		0.09	0.34					0.34
SUMINISTRO UMAE-06	10.00	4.00	1.00	7.66		E		10	4	7.66	24	5.45	7.00		7.00	25.55					25.55
SUMINISTRO UMAE-06	9.00	9.00	1.00	0.17		E		9	9	0.17	24	0.16	0.19		0.19	0.73					0.73
SUMINISTRO UMAE-06	9.00	9.00	1.00	0.17		E		9	9	0.17	24	0.16	0.19		0.19	0.73					0.73
SUMINISTRO UMAE-06	10.00	6.00	1.00	3.45		E		10	6	3.45	24	2.80	3.51		3.51	13.15					13.15
SUMINISTRO UMAE-06	14.00	6.00	1.00	5.14		E		14	6	5.14	24	5.22	6.27		6.27	24.49					24.49
SUMINISTRO UMAE-06	16.00	10.00	1.00	1.41		E		16	10	1.41	24	1.86	2.15		2.15	8.73					8.73
SUMINISTRO UMAE-06	16.00	10.00	1.00	0.35		E		16	10	0.35	24	0.46	0.53		0.53	2.17					2.17
SUMINISTRO UMAE-06	16.00	10.00	1.00	4.98		E		16	10	4.98	24	6.58	7.59		7.59	30.85					30.85
SUMINISTRO UMAE-06	16.00	10.00	1.00	1.82		E		16	10	1.82	24	2.40	2.77		2.77	11.27					11.27
SUMINISTRO UMAE-06	16.00	10.00	1.00	0.16		E		16	10	0.16	24	0.21	0.24		0.24	0.99					0.99
SUMINISTRO UMAE-07	12.00	6.00	1.00	0.74		E		12	6	0.74	24	0.68	0.83		0.83	3.17					3.17
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.25		E		12	12	0.25	24	0.30	0.36		0.36	1.43					1.43
SUMINISTRO UMAE-07	14.00	6.00	1.00	4.39		E		14	6	4.39	24	4.46	5.35		5.35	20.92					20.92
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.25		E		12	12	0.25	24	0.30	0.36		0.36	1.43					1.43
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.25		E		12	12	0.25	24	0.30	0.36		0.36	1.43					1.43
SUMINISTRO UMAE-07	14.00	6.00	1.00	0.58		E		14	6	0.58	24	0.59	0.71		0.71	2.76					2.76
SUMINISTRO UMAE-07	12.00	6.00	1.00	2.11		E		12	6	2.11	24	1.93	2.36		2.36	9.05					9.05
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.25		E		12	12	0.25	24	0.30	0.36		0.36	1.43					1.43
SUMINISTRO UMAE-07	12.00	6.00	1.00	1.79		E		12	6	1.79	24	1.64	2.00		2.00	7.68					7.68
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.25		E		12	12	0.25	24	0.30	0.36		0.36	1.43					1.43
SUMINISTRO UMAE-07	24.00	10.00	1.00	12.00		E		24	10	12.00	24	20.73	23.16		23.16	97.21					97.21
SUMINISTRO UMAE-07	14.00	8.00	1.00	1.76		E		14	8	1.76	24	1.97	2.32		2.32	9.23					9.23
SUMINISTRO UMAE-07	12.00	6.00	1.00	0.74		E		12	6	0.74	24	0.68	0.83		0.83	3.17					3.17
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.25		E		12	12	0.25	24	0.30	0.36		0.36	1.43					1.43
SUMINISTRO UMAE-07	12.00	6.00	1.00	1.35		E		12	6	1.35	24	1.23	1.51		1.51	5.79					5.79
SUMINISTRO UMAE-07	14.00	8.00	1.00	1.66		E		14	8	1.66	24	1.86	2.19		2.19	8.70					8.70
SUMINISTRO UMAE-07	12.00	6.00	1.00	0.79		E		12	6	0.79	24	0.72	0.88		0.88	3.39					3.39
SUMINISTRO UMAE-07	12.00	6.00	1.00	0.71		E		12	6	0.71	24	0.65	0.79		0.79	3.04					3.04
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.25		E		12	12	0.25	24	0.30	0.36		0.36	1.43					1.43

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.25		E		12	12	0.25	24	0.30	0.36		0.36	1.43					1.43
SUMINISTRO UMAE-07	16.00	10.00	1.00	2.90		E		16	10	2.90	24	3.83	4.42		4.42	17.96					17.96
SUMINISTRO UMAE-07	18.00	8.00	1.00	3.91		E		18	8	3.91	24	5.16	5.96		5.96	24.22					24.22
SUMINISTRO UMAE-07	20.00	10.00	1.00	2.43		E		20	10	2.43	24	3.70	4.20		4.20	17.37					17.37
SUMINISTRO UMAE-07	18.00	8.00	1.00	2.26		E		18	8	2.26	24	2.99	3.44		3.44	14.00					14.00
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.23		E		12	12	0.23	24	0.28	0.33		0.33	1.32					1.32
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.23		E		12	12	0.23	24	0.28	0.33		0.33	1.32					1.32
SUMINISTRO UMAE-07	14.00	8.00	1.00	0.73		E		14	8	0.73	24	0.82	0.96		0.96	3.83					3.83
SUMINISTRO UMAE-07	12.00	6.00	1.00	0.74		E		12	6	0.74	24	0.68	0.83		0.83	3.17					3.17
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.25		E		12	12	0.25	24	0.30	0.36		0.36	1.43					1.43
SUMINISTRO UMAE-07	12.00	6.00	1.00	0.71		E		12	6	0.71	24	0.65	0.79		0.79	3.04					3.04
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.25		E		12	12	0.25	24	0.30	0.36		0.36	1.43					1.43
SUMINISTRO UMAE-07	18.00	8.00	1.00	2.69		E		18	8	2.69	24	3.55	4.10		4.10	16.66					16.66
SUMINISTRO UMAE-07	24.00	12.00	1.00	0.66		E		24	12	0.66	24	1.21	1.34		1.34	5.66					5.66
SUMINISTRO UMAE-07	24.00	12.00	1.00	6.69		E		24	12	6.69	24	12.23	13.59		13.59	57.38					57.38
SUMINISTRO UMAE-07	16.00	8.00	1.00	2.17		E		16	8	2.17	24	2.65	3.09		3.09	12.41					12.41
SUMINISTRO UMAE-07	16.00	8.00	1.00	0.24		E		16	8	0.24	24	0.29	0.34		0.34	1.37					1.37
SUMINISTRO UMAE-07	12.00	6.00	1.00	0.71		E		12	6	0.71	24	0.65	0.79		0.79	3.04					3.04
SUMINISTRO UMAE-07	12.00	6.00	1.00	0.73		E		12	6	0.73	24	0.67	0.82		0.82	3.13					3.13
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.25		E		12	12	0.25	24	0.30	0.36		0.36	1.43					1.43
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.25		E		12	12	0.25	24	0.30	0.36		0.36	1.43					1.43
SUMINISTRO UMAE-07	20.00	10.00	1.00	0.35		E		20	10	0.35	24	0.53	0.60		0.60	2.50					2.50
SUMINISTRO UMAE-07	26.00	14.00	1.00	7.35		E		26	14	7.35	24	14.94	16.43		16.43	70.05					70.05
SUMINISTRO UMAE-07	26.00	14.00	1.00	19.44		E		26	14	19.44	24	39.50	43.45		43.45	185.26					185.26
SUMINISTRO UMAE-07	18.00	8.00	1.00	1.69		E		18	8	1.69	24	2.23	2.58		2.58	10.47					10.47
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.25		E		12	12	0.25	24	0.30	0.36		0.36	1.43					1.43
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.23		E		12	12	0.23	24	0.28	0.33		0.33	1.32					1.32
SUMINISTRO UMAE-07	12.00	6.00	1.00	1.60		E		12	6	1.60	24	1.46	1.79		1.79	6.86					6.86
SUMINISTRO UMAE-07	24.00	12.00	1.00	1.82		E		24	12	1.82	24	3.33	3.70		3.70	15.61					15.61
SUMINISTRO UMAE-07	26.00	14.00	1.00	1.80		E		26	14	1.80	24	3.66	4.02		4.02	17.15					17.15
SUMINISTRO UMAE-07	24.00	10.00	1.00	2.08		E		24	10	2.08	24	3.59	4.02		4.02	16.85					16.85
SUMINISTRO UMAE-07	24.00	10.00	1.00	0.58		E		24	10	0.58	24	1.00	1.12		1.12	4.70					4.70
SUMINISTRO UMAE-07	32.00	18.00	1.00	1.17		E		32	18	1.17	22	2.97	3.21		3.21	16.70				16.70	
SUMINISTRO UMAE-07	24.00	10.00	1.00	0.66		E		24	10	0.66	24	1.14	1.27		1.27	5.35					5.35
SUMINISTRO UMAE-07	26.00	14.00	1.00	0.40		E		26	14	0.40	24	0.81	0.89		0.89	3.81					3.81
SUMINISTRO UMAE-07	32.00	18.00	1.00	0.75		E		32	18	0.75	22	1.91	2.06		2.06	10.71				10.71	
SUMINISTRO UMAE-07	32.00	18.00	1.00	0.82		E		32	18	0.82	22	2.08	2.25		2.25	11.71				11.71	
SUMINISTRO UMAE-07	32.00	18.00	1.00	0.18		E		32	18	0.18	22	0.46	0.49		0.49	2.57				2.57	
SUMINISTRO UMAE-08	14.00	10.00	1.00	2.40		E		14	10	2.40	24	2.93	3.41		3.41	13.72					13.72
SUMINISTRO UMAE-08	20.00	12.00	1.00	1.74		E		20	12	1.74	24	2.83	3.18		3.18	13.27					13.27
SUMINISTRO UMAE-08	8.00	10.00	1.00	3.73		E		8	10	3.73	24	3.41	4.17		4.17	16.00					16.00
SUMINISTRO UMAE-08	14.00	10.00	1.00	5.05		E		14	10	5.05	24	6.16	7.18		7.18	28.88					28.88
SUMINISTRO UMAE-08	14.00	10.00	1.00	2.38		E		14	10	2.38	24	2.90	3.39		3.39	13.61					13.61
SUMINISTRO UMAE-08	8.00	10.00	1.00	3.85		E		8	10	3.85	24	3.52	4.30		4.30	16.51					16.51
SUMINISTRO UMAE-08	20.00	12.00	1.00	9.56		E		20	12	9.56	24	15.54	17.48		17.48	72.89					72.89
SUMINISTRO UMAE-08	20.00	12.00	1.00	1.57		E		20	12	1.57	24	2.55	2.87		2.87	11.97					11.97
SUMINISTRO UMAE-08	20.00	12.00	1.00	4.25		E		20	12	4.25	24	6.91	7.77		7.77	32.40					32.40
SUMINISTRO UMAE-08	20.00	12.00	1.00	1.22		E		20	12	1.22	24	1.98	2.23		2.23	9.30					9.30
SUMINISTRO UMAE-08	20.00	12.00	1.00	0.28		E		20	12	0.28	24	0.46	0.51		0.51	2.13					2.13
SUMINISTRO UMAE-08	20.00	12.00	1.00	0.18		E		20	12	0.18	24	0.29	0.33		0.33	1.37					1.37
SUMINISTRO UMAE-15	14.00	8.00	1.00	5.26		E		14	8	5.26	24	5.88	6.95		6.95	27.57					27.57
SUMINISTRO UMAE-15	22.00	10.00	1.00	2.74		E		22	10	2.74	24	4.45	5.01		5.01	20.89					20.89
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.42		E		9	9	0.42	24	0.38	0.47		0.47	1.80					1.80
SUMINISTRO UMAE-15	10.00	4.00	1.00	3.21		E		10	4	3.21	24	2.28	2.94		2.94	10.71					10.71
SUMINISTRO UMAE-15	10.00	4.00	1.00	1.96		E		10	4	1.96	24	1.39	1.79		1.79	6.54					6.54
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.42		E		9	9	0.42	24	0.38	0.47		0.47	1.80					1.80
SUMINISTRO UMAE-15	12.00	8.00	1.00	1.42		E		12	8	1.42	24	1.44	1.73		1.73	6.77					6.77
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.37		E		9	9	0.37	24	0.34	0.41		0.41	1.59					1.59
SUMINISTRO UMAE-15	30.00	14.00	1.00	4.58		E		30	14	4.58	24	10.24	11.17		11.17	48.01					48.01

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
SUMINISTRO UMAE-15	12.00	6.00	1.00	1.55		E		12	6	1.55	24	1.42	1.73		1.73	6.65					6.65
SUMINISTRO UMAE-15	12.00	12.00	1.00	0.37		E		12	12	0.37	24	0.45	0.53		0.53	2.12					2.12
SUMINISTRO UMAE-15	12.00	6.00	1.00	1.53		E		12	6	1.53	24	1.40	1.71		1.71	6.56					6.56
SUMINISTRO UMAE-15	12.00	12.00	1.00	0.37		E		12	12	0.37	24	0.45	0.53		0.53	2.12					2.12
SUMINISTRO UMAE-15	14.00	8.00	1.00	3.92		E		14	8	3.92	24	4.38	5.18		5.18	20.55					20.55
SUMINISTRO UMAE-15	12.00	6.00	1.00	1.57		E		12	6	1.57	24	1.44	1.75		1.75	6.73					6.73
SUMINISTRO UMAE-15	20.00	8.00	1.00	3.41		E		20	8	3.41	24	4.85	5.54		5.54	22.75					22.75
SUMINISTRO UMAE-15	12.00	6.00	1.00	1.56		E		12	6	1.56	24	1.43	1.74		1.74	6.69					6.69
SUMINISTRO UMAE-15	12.00	12.00	1.00	0.37		E		12	12	0.37	24	0.45	0.53		0.53	2.12					2.12
SUMINISTRO UMAE-15	12.00	12.00	1.00	0.37		E		12	12	0.37	24	0.45	0.53		0.53	2.12					2.12
SUMINISTRO UMAE-15	10.00	4.00	1.00	2.24		E		10	4	2.24	24	1.59	2.05		2.05	7.47					7.47
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.42		E		9	9	0.42	24	0.38	0.47		0.47	1.80					1.80
SUMINISTRO UMAE-15	10.00	6.00	1.00	2.67		E		10	6	2.67	24	2.17	2.71		2.71	10.18					10.18
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.40		E		9	9	0.40	24	0.37	0.45		0.45	1.72					1.72
SUMINISTRO UMAE-15	16.00	6.00	1.00	1.76		E		16	6	1.76	24	1.97	2.32		2.32	9.23					9.23
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.40		E		9	9	0.40	24	0.37	0.45		0.45	1.72					1.72
SUMINISTRO UMAE-15	10.00	4.00	1.00	5.36		E		10	4	5.36	24	3.81	4.90		4.90	17.88					17.88
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.42		E		9	9	0.42	24	0.38	0.47		0.47	1.80					1.80
SUMINISTRO UMAE-15	14.00	6.00	1.00	1.06		E		14	6	1.06	24	1.08	1.29		1.29	5.05					5.05
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.46		E		9	9	0.46	24	0.42	0.51		0.51	1.97					1.97
SUMINISTRO UMAE-15	10.00	4.00	1.00	2.18		E		10	4	2.18	24	1.55	1.99		1.99	7.27					7.27
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.43		E		9	9	0.43	24	0.39	0.48		0.48	1.84					1.84
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.43		E		9	9	0.43	24	0.39	0.48		0.48	1.84					1.84
SUMINISTRO UMAE-15	12.00	6.00	1.00	2.70		E		12	6	2.70	24	2.47	3.02		3.02	11.58					11.58
SUMINISTRO UMAE-15	10.00	4.00	1.00	2.64		E		10	4	2.64	24	1.88	2.41		2.41	8.81					8.81
SUMINISTRO UMAE-15	12.00	12.00	1.00	0.35		E		12	12	0.35	24	0.43	0.50		0.50	2.00					2.00
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.42		E		9	9	0.42	24	0.38	0.47		0.47	1.80					1.80
SUMINISTRO UMAE-15	12.00	6.00	1.00	1.99		E		12	6	1.99	24	1.82	2.22		2.22	8.53					8.53
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.40		E		9	9	0.40	24	0.37	0.45		0.45	1.72					1.72
SUMINISTRO UMAE-15	10.00	4.00	1.00	1.49		E		10	4	1.49	24	1.06	1.36		1.36	4.97					4.97
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.42		E		9	9	0.42	24	0.38	0.47		0.47	1.80					1.80
SUMINISTRO UMAE-15	18.00	10.00	1.00	4.70		E		18	10	4.70	24	6.69	7.64		7.64	31.35					31.35
SUMINISTRO UMAE-15	10.00	4.00	1.00	0.64		E		10	4	0.64	24	0.46	0.59		0.59	2.13					2.13
SUMINISTRO UMAE-15	16.00	8.00	1.00	6.37		E		16	8	6.37	24	7.77	9.06		9.06	36.42					36.42
SUMINISTRO UMAE-15	14.00	30.00	1.00	0.53		E		14	30	0.53	24	1.18	1.29		1.29	5.56					5.56
SUMINISTRO UMAE-15	30.00	14.00	1.00	0.38		E		30	14	0.38	24	0.85	0.93		0.93	3.98					3.98
SUMINISTRO UMAE-19	10.00	4.00	1.00	1.63		E		10	4	1.63	24	1.16	1.49		1.49	5.44					5.44
SUMINISTRO UMAE-19	14.00	10.00	1.00	1.32		E		14	10	1.32	24	1.61	1.88		1.88	7.55					7.55
SUMINISTRO UMAE-19	9.00	9.00	1.00	0.40		E		9	9	0.40	24	0.37	0.45		0.45	1.72					1.72
SUMINISTRO UMAE-19	10.00	4.00	1.00	1.23		E		10	4	1.23	24	0.87	1.12		1.12	4.10					4.10
SUMINISTRO UMAE-19	9.00	9.00	1.00	0.40		E		9	9	0.40	24	0.37	0.45		0.45	1.72					1.72
SUMINISTRO UMAE-19	12.00	6.00	1.00	1.65		E		12	6	1.65	24	1.51	1.84		1.84	7.08					7.08
SUMINISTRO UMAE-19	12.00	12.00	1.00	0.35		E		12	12	0.35	24	0.43	0.50		0.50	2.00					2.00
SUMINISTRO UMAE-19	16.00	10.00	1.00	3.94		E		16	10	3.94	24	5.20	6.00		6.00	24.41					24.41
SUMINISTRO UMAE-19	10.00	4.00	1.00	1.20		E		10	4	1.20	24	0.85	1.10		1.10	4.00					4.00
SUMINISTRO UMAE-19	9.00	9.00	1.00	0.40		E		9	9	0.40	24	0.37	0.45		0.45	1.72					1.72
SUMINISTRO UMAE-19	10.00	4.00	1.00	3.40		E		10	4	3.40	24	2.42	3.11		3.11	11.34					11.34
SUMINISTRO UMAE-19	12.00	6.00	1.00	3.15		E		12	6	3.15	24	2.88	3.52		3.52	13.51					13.51
SUMINISTRO UMAE-19	12.00	10.00	1.00	3.15		E		12	10	3.15	24	3.52	4.16		4.16	16.51					16.51
SUMINISTRO UMAE-19	10.00	4.00	1.00	2.96		E		10	4	2.96	24	2.11	2.71		2.71	9.87					9.87
SUMINISTRO UMAE-19	10.00	4.00	1.00	2.33		E		10	4	2.33	24	1.66	2.13		2.13	7.77					7.77
SUMINISTRO UMAE-19	9.00	9.00	1.00	0.15		E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-19	9.00	9.00	1.00	0.35		E		9	9	0.35	24	0.32	0.39		0.39	1.50					1.50
SUMINISTRO UMAE-19	14.00	10.00	1.00	0.56		E		14	10	0.56	24	0.68	0.80		0.80	3.20					3.20
SUMINISTRO UMAE-19	10.00	4.00	1.00	0.95		E		10	4	0.95	24	0.68	0.87		0.87	3.17					3.17
SUMINISTRO UMAE-19	16.00	10.00	1.00	1.00		E		16	10	1.00	24	1.32	1.52		1.52	6.19					6.19
SUMINISTRO UMAE-19	16.00	10.00	1.00	0.57		E		16	10	0.57	24	0.75	0.87		0.87	3.53					3.53
SUMINISTRO UMAE-19	9.00	9.00	1.00	0.40		E		9	9	0.40	24	0.37	0.45		0.45	1.72					1.72
SUMINISTRO UMAE-19	10.00	4.00	1.00	0.95		E		10	4	0.95	24	0.68	0.87		0.87	3.17					3.17

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
SUMINISTRO UMAE-19	9.00	9.00	1.00	0.40		E		9	9	0.40	24	0.37	0.45		0.45	1.72					1.72
SUMINISTRO UMAE-19	10.00	4.00	1.00	5.04		E		10	4	5.04	24	3.58	4.61		4.61	16.81					16.81
SUMINISTRO UMAE-19	10.00	4.00	1.00	3.72		E		10	4	3.72	24	2.65	3.40		3.40	12.41					12.41
SUMINISTRO UMAE-19	9.00	9.00	1.00	0.40		E		9	9	0.40	24	0.37	0.45		0.45	1.72					1.72
SUMINISTRO UMAE-19	12.00	6.00	1.00	2.40		E		12	6	2.40	24	2.19	2.68		2.68	10.29					10.29
SUMINISTRO UMAE-19	12.00	6.00	1.00	0.88		E		12	6	0.88	24	0.80	0.98		0.98	3.77					3.77
SUMINISTRO UMAE-19	12.00	12.00	1.00	0.35		E		12	12	0.35	24	0.43	0.50		0.50	2.00					2.00
SUMINISTRO UMAE-19	12.00	6.00	1.00	0.81		E		12	6	0.81	24	0.74	0.91		0.91	3.47					3.47
SUMINISTRO UMAE-19	12.00	6.00	1.00	0.34		E		12	6	0.34	24	0.31	0.38		0.38	1.46					1.46
SUMINISTRO UMAE-19	16.00	8.00	1.00	2.68		E		16	8	2.68	24	3.27	3.81		3.81	15.32					15.32
SUMINISTRO UMAE-19	12.00	12.00	1.00	0.35		E		12	12	0.35	24	0.43	0.50		0.50	2.00					2.00
SUMINISTRO UMAE-19	10.00	4.00	1.00	2.48		E		10	4	2.48	24	1.76	2.27		2.27	8.27					8.27
SUMINISTRO UMAE-19	9.00	9.00	1.00	0.40		E		9	9	0.40	24	0.37	0.45		0.45	1.72					1.72
SUMINISTRO UMAE-19	10.00	4.00	1.00	0.62		E		10	4	0.62	24	0.44	0.57		0.57	2.07					2.07
SUMINISTRO UMAE-19	10.00	4.00	1.00	0.20		E		10	4	0.20	24	0.14	0.18		0.18	0.67					0.67
SUMINISTRO UMAE-19	10.00	28.00	1.00	2.30		E		10	28	2.30	24	4.44	4.91		4.91	20.82					20.82
SUMINISTRO UMAE-19	28.00	10.00	1.00	6.83		E		28	10	6.83	24	13.18	14.57		14.57	61.84					61.84
SUMINISTRO UMAE-19	10.00	28.00	1.00	1.89		E		10	28	1.89	24	3.65	4.03		4.03	17.11					17.11
VENTILACION MECANICA VS-02	14.00	8.00	1.00	6.03				14	8	6.03	24	6.74				31.61					31.61
VENTILACION MECANICA VS-02	14.00	8.00	1.00	2.07				14	8	2.07	24	2.31				10.85					10.85
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.22				10	4	0.22	24	0.16				0.73					0.73
VENTILACION MECANICA VS-02	10.00	4.00	1.00	3.12				10	4	3.12	24	2.22				10.41					10.41
VENTILACION MECANICA VS-02	10.00	4.00	1.00	2.93				10	4	2.93	24	2.08				9.77					9.77
VENTILACION MECANICA VS-02	10.00	4.00	1.00	2.91				10	4	2.91	24	2.07				9.71					9.71
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.10				9	9	0.10	24	0.09				0.43					0.43
VENTILACION MECANICA VS-02	10.00	6.00	1.00	7.54				10	6	7.54	24	6.13				28.74					28.74
VENTILACION MECANICA VS-02	10.00	4.00	1.00	5.01				10	4	5.01	24	3.56				16.71					16.71
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.10				9	9	0.10	24	0.09				0.43					0.43
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.10				9	9	0.10	24	0.09				0.43					0.43
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.10				9	9	0.10	24	0.09				0.43					0.43
VENTILACION MECANICA VS-02	10.00	8.00	1.00	4.97				10	8	4.97	24	4.54				21.31					21.31
VENTILACION MECANICA VS-02	10.00	4.00	1.00	4.83				10	4	4.83	24	3.44				16.11					16.11
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.10				9	9	0.10	24	0.09				0.43					0.43
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.10				9	9	0.10	24	0.09				0.43					0.43
VENTILACION MECANICA VS-02	12.00	8.00	1.00	7.49				12	8	7.49	24	7.61				35.69					35.69
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.10				9	9	0.10	24	0.09				0.43					0.43
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.10				9	9	0.10	24	0.09				0.43					0.43
VENTILACION MECANICA VS-02	14.00	8.00	1.00	0.17				14	8	0.17	24	0.19				0.89					0.89
VENTILACION MECANICA VS-02	14.00	8.00	1.00	2.64				14	8	2.64	24	2.95				13.84					13.84
VENTILACION MECANICA VS-02	14.00	8.00	1.00	0.07				14	8	0.07	24	0.08				0.37					0.37
VENTILACION MECANICA VS-02	10.00	4.00	1.00	2.64				10	4	2.64	24	1.88				8.81					8.81
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.10				9	9	0.10	24	0.09				0.43					0.43
VENTILACION MECANICA VS-02	10.00	4.00	1.00	3.12				10	4	3.12	24	2.22				10.41					10.41
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.10				9	9	0.10	24	0.09				0.43					0.43
VENTILACION MECANICA VS-02	10.00	4.00	1.00	3.12				10	4	3.12	24	2.22				10.41					10.41
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.10				9	9	0.10	24	0.09				0.43					0.43
VENTILACION MECANICA VS-02	10.00	4.00	1.00	2.31				10	4	2.31	24	1.64				7.71					7.71
VENTILACION MECANICA VS-02	10.00	4.00	1.00	1.24				10	4	1.24	24	0.88				4.14					4.14
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.47				10	4	0.47	24	0.33				1.57					1.57
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.24				10	4	0.24	24	0.17				0.80					0.80
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.24				10	4	0.24	24	0.17				0.80					0.80
VENTILACION MECANICA VS-02	10.00	4.00	1.00	3.40				10	4	3.40	24	2.42				11.34					11.34
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.51				10	4	0.51	24	0.36				1.70					1.70
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.31				10	4	0.31	24	0.22				1.03					1.03
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.31				10	4	0.31	24	0.22				1.03					1.03
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.22				10	4	0.22	24	0.16				0.73					0.73
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.95				10	4	0.95	24	0.68				3.17					3.17
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.31				10	4	0.31	24	0.22				1.03					1.03
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.31				10	4	0.31	24	0.22				1.03					1.03

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
VENTILACION MECANICA VS-02	14.00	8.00	1.00	0.06				14	8	0.06	24	0.07				0.31					0.31
VENTILACION MECANICA VS-02	14.00	8.00	1.00	0.22				14	8	0.22	24	0.25				1.15					1.15
VENTILACION MECANICA VS-02	14.00	8.00	1.00	0.07				14	8	0.07	24	0.08				0.37					0.37
VENTILACION MECANICA VS-02	14.00	8.00	1.00	1.26				14	8	1.26	24	1.41				6.60					6.60
VENTILACION MECANICA VS-02	14.00	8.00	1.00	4.39				14	8	4.39	24	4.91				23.01					23.01
VENTILACION MECANICA VS-02	14.00	8.00	1.00	0.20				14	8	0.20	24	0.22				1.05					1.05
VENTILACION MECANICA VS-04	24.00	14.00	1.00	2.89				24	14	2.89	24	5.58				26.16					26.16
VENTILACION MECANICA VS-04	32.00	18.00	1.00	0.33				32	18	0.33	22	0.84				4.71				4.71	
VENTILACION MECANICA VS-04	22.00	14.00	1.00	3.75				22	14	3.75	24	6.86				32.16					32.16
VENTILACION MECANICA VS-04	26.00	12.00	1.00	0.04				26	12	0.04	24	0.08				0.36					0.36
VENTILACION MECANICA VS-04	26.00	12.00	1.00	0.04				26	12	0.04	24	0.08				0.36					0.36
VENTILACION MECANICA VS-04	10.00	4.00	1.00	1.26				10	4	1.26	24	0.90				4.20					4.20
VENTILACION MECANICA VS-04	8.00	8.00	1.00	0.27				8	8	0.27	24	0.22				1.03					1.03
VENTILACION MECANICA VS-04	10.00	4.00	1.00	1.26				10	4	1.26	24	0.90				4.20					4.20
VENTILACION MECANICA VS-04	8.00	8.00	1.00	0.27				8	8	0.27	24	0.22				1.03					1.03
VENTILACION MECANICA VS-04	32.00	18.00	1.00	9.35				32	18	9.35	22	23.75				133.47				133.47	
VENTILACION MECANICA VS-04	32.00	18.00	1.00	3.80				32	18	3.80	22	9.65				54.24				54.24	
VENTILACION MECANICA VS-04	10.00	4.00	1.00	0.44				10	4	0.44	24	0.31				1.47					1.47
VENTILACION MECANICA VS-04	10.00	4.00	1.00	0.98				10	4	0.98	24	0.70				3.27					3.27
VENTILACION MECANICA VS-04	32.00	18.00	1.00	3.73				32	18	3.73	22	9.47				53.25				53.25	
VENTILACION MECANICA VS-04	32.00	18.00	1.00	1.43				32	18	1.43	22	3.63				20.41				20.41	
VENTILACION MECANICA VS-04	14.00	6.00	1.00	0.76				14	6	0.76	24	0.77				3.62					3.62
VENTILACION MECANICA VS-04	10.00	4.00	1.00	2.51				10	4	2.51	24	1.79				8.37					8.37
VENTILACION MECANICA VS-04	14.00	6.00	1.00	2.38				14	6	2.38	24	2.42				11.34					11.34
VENTILACION MECANICA VS-04	8.00	8.00	1.00	0.27				8	8	0.27	24	0.22				1.03					1.03
VENTILACION MECANICA VS-04	8.00	8.00	1.00	0.24				8	8	0.24	24	0.20				0.91					0.91
VENTILACION MECANICA VS-04	8.00	8.00	1.00	0.27				8	8	0.27	24	0.22				1.03					1.03
VENTILACION MECANICA VS-04	8.00	8.00	1.00	0.27				8	8	0.27	24	0.22				1.03					1.03
VENTILACION MECANICA VS-04	32.00	18.00	1.00	2.21				32	18	2.21	22	5.61				31.55				31.55	
VENTILACION MECANICA VS-04	22.00	14.00	1.00	3.65				22	14	3.65	24	6.68				31.31					31.31
VENTILACION MECANICA VS-04	26.00	12.00	1.00	0.04				26	12	0.04	24	0.08				0.36					0.36
VENTILACION MECANICA VS-04	26.00	12.00	1.00	0.04				26	12	0.04	24	0.08				0.36					0.36
VENTILACION MECANICA VS-04	32.00	18.00	1.00	1.35				32	18	1.35	22	3.43				19.27				19.27	
VENTILACION MECANICA VS-04	10.00	4.00	1.00	1.16				10	4	1.16	24	0.82				3.87					3.87
VENTILACION MECANICA VS-04	8.00	8.00	1.00	0.27				8	8	0.27	24	0.22				1.03					1.03
VENTILACION MECANICA VS-04	32.00	18.00	1.00	1.86				32	18	1.86	22	4.72				26.55				26.55	
VENTILACION MECANICA VS-05	18.00	8.00	1.00	2.03				18	8	2.03	24	2.68				12.57					12.57
VENTILACION MECANICA VS-05	16.00	16.00	1.00	0.17				16	16	0.17	24	0.28				1.30					1.30
VENTILACION MECANICA VS-05	18.00	8.00	1.00	0.67				18	8	0.67	24	0.88				4.15					4.15
VENTILACION MECANICA VS-05	24.00	12.00	1.00	4.27				24	12	4.27	24	7.81				36.62					36.62
VENTILACION MECANICA VS-05	16.00	16.00	1.00	0.11				16	16	0.11	24	0.18				0.84					0.84
VENTILACION MECANICA VS-05	16.00	16.00	1.00	0.11				16	16	0.11	24	0.18				0.84					0.84
VENTILACION MECANICA VS-05	18.00	8.00	1.00	0.54				18	8	0.54	24	0.71				3.35					3.35
VENTILACION MECANICA VS-05	24.00	12.00	1.00	7.79				24	12	7.79	24	14.25				66.82					66.82
VENTILACION MECANICA VS-05	14.00	6.00	1.00	6.60				14	6	6.60	24	6.71				31.45					31.45
VENTILACION MECANICA VS-05	12.00	12.00	1.00	0.22				12	12	0.22	24	0.27				1.26					1.26
VENTILACION MECANICA VS-05	28.00	14.00	1.00	0.80				28	14	0.80	24	1.71				8.01					8.01
VENTILACION MECANICA VS-05	16.00	16.00	1.00	0.17				16	16	0.17	24	0.28				1.30					1.30
VENTILACION MECANICA VS-05	14.00	6.00	1.00	1.94				14	6	1.94	24	1.97				9.24					9.24
VENTILACION MECANICA VS-05	10.00	4.00	1.00	2.47				10	4	2.47	24	1.76				8.24					8.24
VENTILACION MECANICA VS-05	8.00	8.00	1.00	0.27				8	8	0.27	24	0.22				1.03					1.03
VENTILACION MECANICA VS-05	20.00	8.00	1.00	6.40				20	8	6.40	24	9.10				42.69					42.69
VENTILACION MECANICA VS-05	28.00	14.00	1.00	10.03				28	14	10.03	24	21.40				100.37					100.37
VENTILACION MECANICA VS-05	28.00	14.00	1.00	8.89				28	14	8.89	24	18.97				88.96					88.96
VENTILACION MECANICA VS-05	28.00	14.00	1.00	0.42				28	14	0.42	24	0.90				4.20					4.20
VENTILACION MECANICA VS-05	28.00	14.00	1.00	0.89				28	14	0.89	24	1.90				8.91					8.91
VENTILACION MECANICA VS-05	8.00	8.00	1.00	0.27				8	8	0.27	24	0.22				1.03					1.03
VENTILACION MECANICA VS-06	10.00	4.00	1.00	0.84				10	4	0.84	24	0.60				2.80					2.80
VENTILACION MECANICA VS-06	9.00	9.00	1.00	0.27				9	9	0.27	24	0.25				1.16					1.16

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
VENTILACION MECANICA VS-06	10.00	4.00	1.00	2.34				10	4	2.34	24	1.66				7.81					7.81
VENTILACION MECANICA VS-06	10.00	4.00	1.00	0.51				10	4	0.51	24	0.36				1.70					1.70
VENTILACION MECANICA VS-06	9.00	9.00	1.00	0.10				9	9	0.10	24	0.09				0.43					0.43
VENTILACION MECANICA VS-06	10.00	6.00	1.00	2.10				10	6	2.10	24	1.71				8.01					8.01
VENTILACION MECANICA VS-06	10.00	4.00	1.00	1.74				10	4	1.74	24	1.24				5.80					5.80
VENTILACION MECANICA VS-06	10.00	4.00	1.00	0.16				10	4	0.16	24	0.11				0.53					0.53
VENTILACION MECANICA VS-06D	10.00	6.00	1.00	0.57				10	6	0.57	24	0.46				2.17					2.17
VENTILACION MECANICA VS-06D	10.00	6.00	1.00	5.29				10	6	5.29	24	4.30				20.17					20.17
VENTILACION MECANICA VS-06D	10.00	6.00	1.00	0.33				10	6	0.33	24	0.27				1.26					1.26
VENTILACION MECANICA VS-06D	10.00	6.00	1.00	0.49				10	6	0.49	24	0.40				1.87					1.87
VENTILACION MECANICA VS-06D	10.00	6.00	1.00	0.79				10	6	0.79	24	0.64				3.01					3.01
VENTILACION MECANICA VS-06D	10.00	6.00	1.00	0.18				10	6	0.18	24	0.15				0.69					0.69
VENTILACION MECANICA VS-06D	10.00	6.00	1.00	0.18				10	6	0.18	24	0.15				0.69					0.69
VENTILACION MECANICA VS-07	12.00	6.00	1.00	1.04				12	6	1.04	24	0.95				4.46					4.46
VENTILACION MECANICA VS-07	12.00	10.00	1.00	6.70				12	10	6.70	24	7.49				35.12					35.12
VENTILACION MECANICA VS-07	16.00	14.00	1.00	4.33				16	14	4.33	24	6.60				30.95					30.95
VENTILACION MECANICA VS-07	12.00	12.00	1.00	0.37				12	12	0.37	24	0.45				2.12					2.12
VENTILACION MECANICA VS-07	12.00	6.00	1.00	1.07				12	6	1.07	24	0.98				4.59					4.59
VENTILACION MECANICA VS-07	12.00	12.00	1.00	0.37				12	12	0.37	24	0.45				2.12					2.12
VENTILACION MECANICA VS-07	10.00	4.00	1.00	5.12				10	4	5.12	24	3.64				17.08					17.08
VENTILACION MECANICA VS-07	9.00	9.00	1.00	0.41				9	9	0.41	24	0.37				1.76					1.76
VENTILACION MECANICA VS-07	10.00	4.00	1.00	0.30				10	4	0.30	24	0.21				1.00					1.00
VENTILACION MECANICA VS-07	9.00	9.00	1.00	0.39				9	9	0.39	24	0.36				1.67					1.67
VENTILACION MECANICA VS-07	10.00	4.00	1.00	5.15				10	4	5.15	24	3.66				17.18					17.18
VENTILACION MECANICA VS-07	9.00	9.00	1.00	0.42				9	9	0.42	24	0.38				1.80					1.80
VENTILACION MECANICA VS-07	10.00	6.00	1.00	6.76				10	6	6.76	24	5.49				25.77					25.77
VENTILACION MECANICA VS-07	9.00	9.00	1.00	0.39				9	9	0.39	24	0.36				1.67					1.67
VENTILACION MECANICA VS-07	14.00	6.00	1.00	11.33				14	6	11.33	24	11.51				53.99					53.99
VENTILACION MECANICA VS-07	14.00	14.00	1.00	0.28				14	14	0.28	24	0.40				1.87					1.87
VENTILACION MECANICA VS-07	20.00	14.00	1.00	1.59				20	14	1.59	24	2.75				12.88					12.88
VENTILACION MECANICA VS-07	14.00	14.00	1.00	0.28				14	14	0.28	24	0.40				1.87					1.87
VENTILACION MECANICA VS-07	12.00	6.00	1.00	1.80				12	6	1.80	24	1.65				7.72					7.72
VENTILACION MECANICA VS-07D	20.00	14.00	1.00	0.30				20	14	0.30	24	0.52				2.43					2.43
ACCESORIOS																					
A EXTERIOR UFCO-06	16.00	12.00	1.00	0.81	Codo			16	12	0.81	24	1.16				5.42					5.42
A EXTERIOR UFCO-07 08	22.00	14.00	1.00	1.12	Codo			22	14	1.12	24	2.04				9.59					9.59
A EXTERIOR UFCO-07 08	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
A EXTERIOR UFCO-07 08	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
A EXTERIOR UFCO-07 08	24.00	12.00	1.00	0.30	Transicion			24	12	0.30	24	0.55				2.57					2.57
A EXTERIOR UFCO-07 08	4.00	10.00	1.00	0.15	Zapato			4	10	0.15	24	0.11				0.50					0.50
A EXTERIOR UFCO-09A B	12.00	6.00	1.00	0.61	Codo			12	6	0.61	24	0.56				2.61					2.61
A EXTERIOR UFCO-09A B	12.00	6.00	1.00	0.61	Codo			12	6	0.61	24	0.56				2.61					2.61
A EXTERIOR UFCO-09A B	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
A EXTERIOR UFCO-09A B	12.00	10.00	1.00	0.30	Transicion			12	10	0.30	24	0.34				1.57					1.57
A EXTERIOR UFCO-09A B	16.00	16.00	1.00	0.15	Zapato			16	16	0.15	24	0.24				1.14					1.14
A EXTERIOR UFCO-12	12.00	6.00	1.00	0.61	Codo			12	6	0.61	24	0.56				2.61					2.61
A EXTERIOR UFCO-13	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
A EXTERIOR URC-02	14.00	8.00	1.00	0.71	Codo			14	8	0.71	24	0.79				3.73					3.73
A EXTERIOR URC-02	14.00	8.00	1.00	0.71	Codo			14	8	0.71	24	0.79				3.73					3.73
A EXTERIOR URC-02	6.00	14.00	1.00	0.30	Codo			6	14	0.30	24	0.31				1.45					1.45
A EXTERIOR URC-02	6.00	14.00	1.00	0.30	Codo			6	14	0.30	24	0.31				1.45					1.45
A EXTERIOR URC-02	14.00	6.00	1.00	0.71	Codo			14	6	0.71	24	0.72				3.39					3.39
A EXTERIOR URC-02	6.00	14.00	1.00	0.30	Codo			6	14	0.30	24	0.31				1.45					1.45
A EXTERIOR URC-02	14.00	6.00	1.00	0.71	Codo			14	6	0.71	24	0.72				3.39					3.39
A EXTERIOR URC-02	10.00	12.00	1.00	0.30	Transicion redondo cuadrado			10	12	0.30	24	0.34				1.57					1.57
A EXTERIOR URC-02D	10.00	6.00	1.00	0.30	Transicion redondo cuadrado			10	6	0.30	24	0.24				1.14					1.14
A EXTERIOR URC-05	14.00	8.00	1.00	0.71	Codo			14	8	0.71	24	0.79				3.73					3.73

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
A EXTERIOR URC-05	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
A EXTERIOR URC-05	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
A EXTERIOR URC-05	8.00	18.00	1.00	0.41	Codo			8	18	0.41	24	0.54				2.52					2.52
A EXTERIOR URC-05	18.00	8.00	1.00	0.91	Codo			18	8	0.91	24	1.21				5.66					5.66
A EXTERIOR URC-05	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
A EXTERIOR URC-05	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
A EXTERIOR URC-05	6.00	10.00	1.00	0.30	Codo			6	10	0.30	24	0.25				1.16					1.16
A EXTERIOR URC-05	6.00	10.00	1.00	0.30	Codo			6	10	0.30	24	0.25				1.16					1.16
A EXTERIOR URC-05	30.00	24.00	1.00	0.30	Transicion			30	24	0.30	24	0.82				3.86					3.86
A EXTERIOR URC-05	14.00	8.00	1.00	0.30	Transicion redondo cuadrado			14	8	0.30	24	0.34				1.57					1.57
A EXTERIOR URC-05D	6.00	14.00	1.00	0.30	Codo			6	14	0.30	24	0.31				1.45					1.45
A EXTERIOR URC-05D	14.00	6.00	1.00	0.30	Transicion redondo cuadrado			14	6	0.30	24	0.30				1.43					1.43
A EXTERIOR URC-10	16.00	14.00	1.00	0.81	Codo			16	14	0.81	24	1.24				5.81					5.81
A EXTERIOR URC-10	16.00	14.00	1.00	0.81	Codo			16	14	0.81	24	1.24				5.81					5.81
A EXTERIOR URC-10	16.00	14.00	1.00	0.81	Codo			16	14	0.81	24	1.24				5.81					5.81
A EXTERIOR URC-10	20.00	12.00	1.00	1.02	Codo			20	12	1.02	24	1.65				7.75					7.75
A EXTERIOR URC-10	12.00	20.00	1.00	0.61	Codo			12	20	0.61	24	0.99				4.65					4.65
A EXTERIOR URC-10	16.00	14.00	1.00	0.81	Codo			16	14	0.81	24	1.24				5.81					5.81
A EXTERIOR URC-10	16.00	14.00	1.00	0.81	Codo			16	14	0.81	24	1.24				5.81					5.81
A EXTERIOR URC-10	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
A EXTERIOR URC-10	20.00	10.00	1.00	0.30	Transicion redondo cuadrado			20	10	0.30	24	0.46				2.14					2.14
A EXTERIOR URC-10D	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
A EXTERIOR URC-10D	20.00	10.00	1.00	1.02	Codo			20	10	1.02	24	1.55				7.26					7.26
A EXTERIOR URC-10D	14.00	6.00	1.00	0.30	Transicion redondo cuadrado			14	6	0.30	24	0.30				1.43					1.43
A EXTERIOR URC-13	14.00	16.00	1.00	0.71	Codo			14	16	0.71	24	1.08				5.08					5.08
A EXTERIOR URC-13	12.00	10.00	1.00	0.61	Codo			12	10	0.61	24	0.68				3.20					3.20
A EXTERIOR URC-13	12.00	10.00	1.00	0.61	Codo			12	10	0.61	24	0.68				3.20					3.20
A EXTERIOR URC-13	10.00	12.00	1.00	0.51	Codo			10	12	0.51	24	0.57				2.66					2.66
A EXTERIOR URC-13	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
A EXTERIOR URC-13	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
A EXTERIOR URC-13	10.00	12.00	1.00	0.51	Codo			10	12	0.51	24	0.57				2.66					2.66
A EXTERIOR URC-13	12.00	10.00	1.00	0.61	Codo			12	10	0.61	24	0.68				3.20					3.20
A EXTERIOR URC-13	10.00	12.00	1.00	0.51	Codo			10	12	0.51	24	0.57				2.66					2.66
A EXTERIOR URC-13	49.00	10.00	1.00	0.30	Transicion			49	10	0.30	22	0.90				5.05				5.05	
A EXTERIOR URC-13	16.00	10.00	1.00	0.30	Transicion redondo cuadrado			16	10	0.30	24	0.40				1.86					1.86
A EXTERIOR URC-13D	14.00	16.00	1.00	0.71	Codo			14	16	0.71	24	1.08				5.08					5.08
A EXTERIOR URC-13D	20.00	10.00	1.00	0.30	Transicion redondo cuadrado			20	10	0.30	24	0.46				2.14					2.14
EXTRACCION VE-05	28.00	10.00	1.00	1.42	Codo			28	10	1.42	24	2.75				12.88					12.88
EXTRACCION VE-05	12.00	10.00	1.00	0.61	Codo			12	10	0.61	24	0.68				3.20					3.20
EXTRACCION VE-05	12.00	10.00	1.00	0.61	Codo			12	10	0.61	24	0.68				3.20					3.20
EXTRACCION VE-05	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
EXTRACCION VE-05	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
EXTRACCION VE-05	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
EXTRACCION VE-05	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
EXTRACCION VE-05	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
EXTRACCION VE-05	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
EXTRACCION VE-05	12.00	18.00	1.00	0.61	Codo			12	18	0.61	24	0.93				4.36					4.36
EXTRACCION VE-05	12.00	18.00	1.00	0.61	Codo			12	18	0.61	24	0.93				4.36					4.36
EXTRACCION VE-05	12.00	6.00	1.00	0.30	Transicion			12	6	0.30	24	0.27				1.29					1.29
EXTRACCION VE-05	43.00	11.00	1.00	0.30	Transicion			43	11	0.30	22	0.82				4.63				4.63	
EXTRACCION VE-05	40.00	12.00	1.00	0.30	Transicion			40	12	0.30	22	0.79				4.45				4.45	
EXTRACCION VE-05	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-05	12.00	8.00	1.00	0.30	Transicion			12	8	0.30	24	0.30				1.43					1.43
EXTRACCION VE-05	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-05	14.00	6.00	1.00	0.30	Transicion redondo cuadrado			14	6	0.30	24	0.30				1.43					1.43
EXTRACCION VE-05	12.00	10.00	1.00	0.30	Transicion redondo cuadrado			12	10	0.30	24	0.34				1.57					1.57
EXTRACCION VE-05	12.00	10.00	1.00	0.15	Zapato			12	10	0.15	24	0.17				0.79					0.79
EXTRACCION VE-05	14.00	12.00	1.00	0.15	Zapato			14	12	0.15	24	0.20				0.93					0.93
EXTRACCION VE-05	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-05	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-05	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-05	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-05	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-05	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-05	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
EXTRACCION VE-05	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
EXTRACCION VE-05	12.00	12.00	1.00	0.15	Zapato			12	12	0.15	24	0.18				0.86					0.86
EXTRACCION VE-05	12.00	12.00	1.00	0.15	Zapato			12	12	0.15	24	0.18				0.86					0.86
EXTRACCION VE-05	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-05	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-05	12.00	4.00	1.00	0.15	Zapato			12	4	0.15	24	0.12				0.57					0.57
EXTRACCION VE-05	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-05	16.00	8.00	1.00	0.15	Zapato			16	8	0.15	24	0.18				0.86					0.86
EXTRACCION VE-06	14.00	10.00	1.00	0.71	Codo			14	10	0.71	24	0.87				4.07					4.07
EXTRACCION VE-06	18.00	8.00	1.00	0.91	Codo			18	8	0.91	24	1.21				5.66					5.66
EXTRACCION VE-06	14.00	6.00	1.00	0.71	Codo			14	6	0.71	24	0.72				3.39					3.39
EXTRACCION VE-06	14.00	6.00	1.00	0.71	Codo			14	6	0.71	24	0.72				3.39					3.39
EXTRACCION VE-06	12.00	6.00	1.00	0.30	Transicion			12	6	0.30	24	0.27				1.29					1.29
EXTRACCION VE-06	10.00	8.00	1.00	0.30	Transicion redondo cuadrado			10	8	0.30	24	0.27				1.29					1.29
EXTRACCION VE-06	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-06	10.00	10.00	1.00	0.15	Zapato			10	10	0.15	24	0.15				0.71					0.71
EXTRACCION VE-07	6.00	14.00	1.00	0.30	Codo			6	14	0.30	24	0.31				1.45					1.45
EXTRACCION VE-07	40.00	12.00	1.00	0.30	Transicion			40	12	0.30	22	0.79				4.45				4.45	
EXTRACCION VE-07	14.00	12.00	1.00	0.30	Transicion			14	12	0.30	24	0.40				1.86					1.86
EXTRACCION VE-07	8.00	10.00	1.00	0.30	Transicion			8	10	0.30	24	0.27				1.29					1.29
EXTRACCION VE-07	12.00	10.00	1.00	0.30	Transicion			12	10	0.30	24	0.34				1.57					1.57
EXTRACCION VE-07	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-07	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-07	14.00	6.00	1.00	0.15	Zapato			14	6	0.15	24	0.15				0.71					0.71
EXTRACCION VE-07	14.00	6.00	1.00	0.15	Zapato			14	6	0.15	24	0.15				0.71					0.71
EXTRACCION VE-07D	6.00	14.00	1.00	0.30	Codo			6	14	0.30	24	0.31				1.45					1.45
EXTRACCION VE-07D	14.00	10.00	1.00	0.30	Transicion			14	10	0.30	24	0.37				1.72					1.72
EXTRACCION VE-11	28.00	10.00	1.00	1.42	Codo			28	10	1.42	24	2.75				12.88					12.88
EXTRACCION VE-11	12.00	6.00	1.00	0.61	Codo			12	6	0.61	24	0.56				2.61					2.61
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
EXTRACCION VE-11	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	14.00	10.00	1.00	0.71	Codo			14	10	0.71	24	0.87				4.07					4.07
EXTRACCION VE-11	10.00	14.00	1.00	0.51	Codo			10	14	0.51	24	0.62				2.90					2.90
EXTRACCION VE-11	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
EXTRACCION VE-11	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
EXTRACCION VE-11	12.00	6.00	1.00	0.61	Codo			12	6	0.61	24	0.56				2.61					2.61
EXTRACCION VE-11	12.00	8.00	1.00	0.61	Codo			12	8	0.61	24	0.62				2.90					2.90
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-11	14.00	10.00	1.00	0.71	Codo			14	10	0.71	24	0.87				4.07					4.07
EXTRACCION VE-11	14.00	10.00	1.00	0.71	Codo			14	10	0.71	24	0.87				4.07					4.07
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	8.00	14.00	1.00	0.41	Codo			8	14	0.41	24	0.45				2.13					2.13
EXTRACCION VE-11	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
EXTRACCION VE-11	22.00	12.00	1.00	1.12	Codo			22	12	1.12	24	1.93				9.05					9.05
EXTRACCION VE-11	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
EXTRACCION VE-11	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
EXTRACCION VE-11	10.00	8.00	1.00	0.51	Codo			10	8	0.51	24	0.46				2.18					2.18
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	12.00	22.00	1.00	0.61	Codo			12	22	0.61	24	1.05				4.94					4.94
EXTRACCION VE-11	12.00	22.00	1.00	0.61	Codo			12	22	0.61	24	1.05				4.94					4.94
EXTRACCION VE-11	14.00	8.00	1.00	0.71	Codo			14	8	0.71	24	0.79				3.73					3.73
EXTRACCION VE-11	14.00	8.00	1.00	0.71	Codo			14	8	0.71	24	0.79				3.73					3.73
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	18.00	12.00	1.00	0.91	Codo			18	12	0.91	24	1.39				6.54					6.54
EXTRACCION VE-11	12.00	18.00	1.00	0.61	Codo			12	18	0.61	24	0.93				4.36					4.36
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-11	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
EXTRACCION VE-11	6.00	10.00	1.00	0.30	Codo			6	10	0.30	24	0.25				1.16					1.16
EXTRACCION VE-11	6.00	10.00	1.00	0.30	Codo			6	10	0.30	24	0.25				1.16					1.16
EXTRACCION VE-11	18.00	32.00	1.00	0.91	Codo			18	32	0.91	22	2.32				13.05				13.05	
EXTRACCION VE-11	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
EXTRACCION VE-11	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
EXTRACCION VE-11	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
EXTRACCION VE-11	6.00	10.00	1.00	0.30	Codo			6	10	0.30	24	0.25				1.16					1.16
EXTRACCION VE-11	13.00	12.00	1.00	0.30	Transicion			13	12	0.30	24	0.38				1.79					1.79
EXTRACCION VE-11	20.00	20.00	1.00	0.30	Transicion			20	20	0.30	24	0.61				2.86					2.86
EXTRACCION VE-11	12.00	6.00	1.00	0.30	Transicion			12	6	0.30	24	0.27				1.29					1.29
EXTRACCION VE-11	12.00	8.00	1.00	0.30	Transicion			12	8	0.30	24	0.30				1.43					1.43
EXTRACCION VE-11	12.00	10.00	1.00	0.30	Transicion			12	10	0.30	24	0.34				1.57					1.57
EXTRACCION VE-11	14.00	10.00	1.00	0.30	Transicion			14	10	0.30	24	0.37				1.72					1.72
EXTRACCION VE-11	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-11	14.00	8.00	1.00	0.30	Transicion			14	8	0.30	24	0.34				1.57					1.57
EXTRACCION VE-11	24.00	24.00	1.00	0.30	Transicion			24	24	0.30	24	0.73				3.43					3.43
EXTRACCION VE-11	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-11	10.00	8.00	1.00	0.30	Transicion			10	8	0.30	24	0.27				1.29					1.29
EXTRACCION VE-11	12.00	8.00	1.00	0.30	Transicion			12	8	0.30	24	0.30				1.43					1.43
EXTRACCION VE-11	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-11	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-11	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-11	22.00	12.00	1.00	0.30	Transicion			22	12	0.30	24	0.52				2.43					2.43
EXTRACCION VE-11	24.00	24.00	1.00	0.30	Transicion			24	24	0.30	24	0.73				3.43					3.43
EXTRACCION VE-11	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-11	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-11	14.00	8.00	1.00	0.30	Transicion			14	8	0.30	24	0.34				1.57					1.57
EXTRACCION VE-11	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-11	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-11	14.00	10.00	1.00	0.30	Transicion			14	10	0.30	24	0.37				1.72					1.72
EXTRACCION VE-11	18.00	10.00	1.00	0.30	Transicion			18	10	0.30	24	0.43				2.00					2.00
EXTRACCION VE-11	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-11	10.00	8.00	1.00	0.30	Transicion			10	8	0.30	24	0.27				1.29					1.29
EXTRACCION VE-11	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-11	18.00	14.00	1.00	0.30	Transicion			18	14	0.30	24	0.49				2.29					2.29
EXTRACCION VE-11	14.00	10.00	1.00	0.30	Transicion			14	10	0.30	24	0.37				1.72					1.72
EXTRACCION VE-11	18.00	12.00	1.00	0.30	Transicion			18	12	0.30	24	0.46				2.14					2.14
EXTRACCION VE-11	28.00	28.00	1.00	0.30	Transicion			28	28	0.30	24	0.85				4.00					4.00
EXTRACCION VE-11	43.00	10.00	1.00	0.30	Transicion			43	10	0.30	22	0.81				4.54				4.54	
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	14.00	6.00	1.00	0.15	Zapato			14	6	0.15	24	0.15				0.71					0.71
EXTRACCION VE-11	14.00	6.00	1.00	0.15	Zapato			14	6	0.15	24	0.15				0.71					0.71
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	12.00	8.00	1.00	0.15	Zapato			12	8	0.15	24	0.15				0.71					0.71
EXTRACCION VE-11	10.00	10.00	1.00	0.15	Zapato			10	10	0.15	24	0.15				0.71					0.71
EXTRACCION VE-11	12.00	6.00	1.00	0.15	Zapato			12	6	0.15	24	0.14				0.64					0.64
EXTRACCION VE-11	10.00	6.00	1.00	0.15	Zapato			10	6	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	6.00	10.00	1.00	0.15	Zapato			6	10	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	6.00	1.00	0.15	Zapato			10	6	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	12.00	8.00	1.00	0.15	Zapato			12	8	0.15	24	0.15				0.71					0.71
EXTRACCION VE-11	14.00	8.00	1.00	0.15	Zapato			14	8	0.15	24	0.17				0.79					0.79
EXTRACCION VE-11	16.00	10.00	1.00	0.15	Zapato			16	10	0.15	24	0.20				0.93					0.93
EXTRACCION VE-11	10.00	6.00	1.00	0.15	Zapato			10	6	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	10.00	6.00	1.00	0.15	Zapato			10	6	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	6.00	1.00	0.15	Zapato			10	6	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	10.00	6.00	1.00	0.15	Zapato			10	6	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	18.00	10.00	1.00	0.15	Zapato			18	10	0.15	24	0.21				1.00					1.00
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	10.00	8.00	1.00	0.15	Zapato			10	8	0.15	24	0.14				0.64					0.64
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	18.00	12.00	1.00	0.15	Zapato			18	12	0.15	24	0.23				1.07					1.07
EXTRACCION VE-11	18.00	14.00	1.00	0.15	Zapato			18	14	0.15	24	0.24				1.14					1.14
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	10.00	6.00	1.00	0.15	Zapato			10	6	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-11	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-11	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-12	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-12	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-12	12.00	6.00	1.00	0.61	Codo			12	6	0.61	24	0.56				2.61					2.61
EXTRACCION VE-12	12.00	6.00	1.00	0.61	Codo			12	6	0.61	24	0.56				2.61					2.61
EXTRACCION VE-12	14.00	6.00	1.00	0.71	Codo			14	6	0.71	24	0.72				3.39					3.39
EXTRACCION VE-12	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-12	12.00	16.00	1.00	0.61	Codo			12	16	0.61	24	0.87				4.07					4.07
EXTRACCION VE-12	14.00	8.00	1.00	0.71	Codo			14	8	0.71	24	0.79				3.73					3.73
EXTRACCION VE-12	26.00	10.00	1.00	1.32	Codo			26	10	1.32	24	2.42				11.33					11.33
EXTRACCION VE-12	26.00	10.00	1.00	1.32	Codo			26	10	1.32	24	2.42				11.33					11.33
EXTRACCION VE-12	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-12	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-12	12.00	6.00	1.00	0.61	Codo			12	6	0.61	24	0.56				2.61					2.61
EXTRACCION VE-12	10.00	20.00	1.00	0.51	Codo			10	20	0.51	24	0.77				3.63					3.63
EXTRACCION VE-12	10.00	20.00	1.00	0.51	Codo			10	20	0.51	24	0.77				3.63					3.63
EXTRACCION VE-12	10.00	14.00	1.00	0.51	Codo			10	14	0.51	24	0.62				2.90					2.90
EXTRACCION VE-12	14.00	10.00	1.00	0.71	Codo			14	10	0.71	24	0.87				4.07					4.07
EXTRACCION VE-12	6.00	14.00	1.00	0.30	Codo			6	14	0.30	24	0.31				1.45					1.45
EXTRACCION VE-12	12.00	12.00	1.00	0.61	Codo			12	12	0.61	24	0.74				3.49					3.49
EXTRACCION VE-12	12.00	12.00	1.00	0.61	Codo			12	12	0.61	24	0.74				3.49					3.49
EXTRACCION VE-12	6.00	10.00	1.00	0.30	Codo			6	10	0.30	24	0.25				1.16					1.16
EXTRACCION VE-12	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-12	10.00	12.00	1.00	0.51	Codo			10	12	0.51	24	0.57				2.66					2.66
EXTRACCION VE-12	12.00	10.00	1.00	0.61	Codo			12	10	0.61	24	0.68				3.20					3.20
EXTRACCION VE-12	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
EXTRACCION VE-12	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
EXTRACCION VE-12	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
EXTRACCION VE-12	14.00	10.00	1.00	0.30	Transicion			14	10	0.30	24	0.37				1.72					1.72
EXTRACCION VE-12	16.00	12.00	1.00	0.30	Transicion			16	12	0.30	24	0.43				2.00					2.00
EXTRACCION VE-12	26.00	10.00	1.00	0.30	Transicion			26	10	0.30	24	0.55				2.57					2.57
EXTRACCION VE-12	20.00	20.00	1.00	0.30	Transicion			20	20	0.30	24	0.61				2.86					2.86
EXTRACCION VE-12	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-12	14.00	10.00	1.00	0.30	Transicion			14	10	0.30	24	0.37				1.72					1.72
EXTRACCION VE-12	16.00	8.00	1.00	0.30	Transicion			16	8	0.30	24	0.37				1.72					1.72
EXTRACCION VE-12	16.00	8.00	1.00	0.30	Transicion			16	8	0.30	24	0.37				1.72					1.72
EXTRACCION VE-12	12.00	43.00	1.00	0.30	Transicion			12	43	0.30	22	0.84				4.71				4.71	
EXTRACCION VE-12	18.00	49.00	1.00	0.30	Transicion			18	49	0.30	22	1.02				5.74				5.74	
EXTRACCION VE-12	14.00	12.00	1.00	0.30	Transicion redondo cuadrado			14	12	0.30	24	0.40				1.86					1.86
EXTRACCION VE-12	10.00		1.00	0.30	Transicion redondo cuadrado			10		0.30	24	0.15				0.71					0.71
EXTRACCION VE-12	10.00	6.00	1.00	0.30	Transicion redondo cuadrado			10	6	0.30	24	0.24				1.14					1.14

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-12	16.00	14.00	1.00	0.30	Transicion redondo cuadrado			16	14	0.30	24	0.46				2.14					2.14
EXTRACCION VE-12	16.00	14.00	1.00	0.30	Transicion redondo cuadrado			16	14	0.30	24	0.46				2.14					2.14
EXTRACCION VE-12	20.00	10.00	1.00	0.30	Transicion redondo cuadrado			20	10	0.30	24	0.46				2.14					2.14
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
EXTRACCION VE-12	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	14.00	10.00	1.00	0.15	Zapato			14	10	0.15	24	0.18				0.86					0.86
EXTRACCION VE-12	18.00	10.00	1.00	0.15	Zapato			18	10	0.15	24	0.21				1.00					1.00
EXTRACCION VE-12	12.00	12.00	1.00	0.15	Zapato			12	12	0.15	24	0.18				0.86					0.86
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-12	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	12.00	8.00	1.00	0.15	Zapato			12	8	0.15	24	0.15				0.71					0.71
EXTRACCION VE-12	12.00	12.00	1.00	0.15	Zapato			12	12	0.15	24	0.18				0.86					0.86
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-12	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-12	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-12	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	10.00	6.00	1.00	0.15	Zapato			10	6	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-12	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-13	14.00	8.00	1.00	0.71	Codo			14	8	0.71	24	0.79				3.73					3.73
EXTRACCION VE-13	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-13	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
EXTRACCION VE-13	12.00	10.00	1.00	0.61	Codo			12	10	0.61	24	0.68				3.20					3.20
EXTRACCION VE-13	12.00	10.00	1.00	0.61	Codo			12	10	0.61	24	0.68				3.20					3.20
EXTRACCION VE-13	12.00	14.00	1.00	0.61	Codo			12	14	0.61	24	0.81				3.78					3.78
EXTRACCION VE-13	12.00	14.00	1.00	0.61	Codo			12	14	0.61	24	0.81				3.78					3.78
EXTRACCION VE-13	10.00	12.00	1.00	0.51	Codo			10	12	0.51	24	0.57				2.66					2.66
EXTRACCION VE-13	14.00	10.00	1.00	0.30	Transicion			14	10	0.30	24	0.37				1.72					1.72
EXTRACCION VE-13	18.00	10.00	1.00	0.30	Transicion			18	10	0.30	24	0.43				2.00					2.00
EXTRACCION VE-13	18.00	12.00	1.00	0.30	Transicion redondo cuadrado			18	12	0.30	24	0.46				2.14					2.14
EXTRACCION VE-13	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-13	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-13	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-13	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-13D	14.00	8.00	1.00	0.30	Transicion			14	8	0.30	24	0.34				1.57					1.57
EXTRACCION VE-14	10.00	12.00	1.00	0.51	Codo			10	12	0.51	24	0.57				2.66					2.66
EXTRACCION VE-14	12.00	10.00	1.00	0.61	Codo			12	10	0.61	24	0.68				3.20					3.20
EXTRACCION VE-14	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-14	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-14	10.00	16.00	1.00	0.51	Codo			10	16	0.51	24	0.67				3.15					3.15
EXTRACCION VE-14	10.00	16.00	1.00	0.51	Codo			10	16	0.51	24	0.67				3.15					3.15
EXTRACCION VE-14	28.00	18.00	1.00	1.42	Codo			28	18	1.42	24	3.32				15.59					15.59
EXTRACCION VE-14	18.00	28.00	1.00	0.91	Codo			18	28	0.91	24	2.14				10.02					10.02
EXTRACCION VE-14	14.00	8.00	1.00	0.71	Codo			14	8	0.71	24	0.79				3.73					3.73
EXTRACCION VE-14	14.00	22.00	1.00	0.71	Codo			14	22	0.71	24	1.30				6.10					6.10
EXTRACCION VE-14	14.00	22.00	1.00	0.71	Codo			14	22	0.71	24	1.30				6.10					6.10
EXTRACCION VE-14	12.00	10.00	1.00	0.30	Transicion			12	10	0.30	24	0.34				1.57					1.57
EXTRACCION VE-14	24.00	24.00	1.00	0.30	Transicion			24	24	0.30	24	0.73				3.43					3.43
EXTRACCION VE-14	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-14	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-14	32.00	18.00	1.00	0.30	Transicion			32	18	0.30	22	0.76				4.28				4.28	
EXTRACCION VE-14	74.00	37.00	1.00	0.30	Transicion			74	37	0.30	22	1.69				9.51				9.51	
EXTRACCION VE-14	10.00	10.00	1.00	0.15	Zapato			10	10	0.15	24	0.15				0.71					0.71
EXTRACCION VE-14	12.00	6.00	1.00	0.15	Zapato			12	6	0.15	24	0.14				0.64					0.64
EXTRACCION VE-14	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-14	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-14	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-14	10.00	10.00	1.00	0.15	Zapato			10	10	0.15	24	0.15				0.71					0.71
EXTRACCION VE-14	12.00	4.00	1.00	0.15	Zapato			12	4	0.15	24	0.12				0.57					0.57
EXTRACCION VE-14	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-14	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-14	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-14	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-14	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-14	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-14	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-14	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-14	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-14	22.00	14.00	1.00	0.15	Zapato			22	14	0.15	24	0.27				1.29					1.29
EXTRACCION VE-15	16.00	10.00	1.00	0.81	Codo			16	10	0.81	24	1.07				5.03					5.03
EXTRACCION VE-15	10.00	16.00	1.00	0.51	Codo			10	16	0.51	24	0.67				3.15					3.15
EXTRACCION VE-15	16.00	16.00	1.00	0.81	Codo			16	16	0.81	24	1.32				6.20					6.20
EXTRACCION VE-15	16.00	16.00	1.00	0.81	Codo			16	16	0.81	24	1.32				6.20					6.20
EXTRACCION VE-15	16.00	16.00	1.00	0.81	Codo			16	16	0.81	24	1.32				6.20					6.20
EXTRACCION VE-15	28.00	18.00	1.00	1.42	Codo			28	18	1.42	24	3.32				15.59					15.59
EXTRACCION VE-15	18.00	28.00	1.00	0.91	Codo			18	28	0.91	24	2.14				10.02					10.02
EXTRACCION VE-15	32.00	18.00	1.00	1.63	Codo			32	18	1.63	22	4.13				23.21				23.21	
EXTRACCION VE-15	18.00	32.00	1.00	0.91	Codo			18	32	0.91	22	2.32				13.05				13.05	
EXTRACCION VE-15	18.00	28.00	1.00	0.91	Codo			18	28	0.91	24	2.14				10.02					10.02
EXTRACCION VE-15	18.00	28.00	1.00	0.91	Codo			18	28	0.91	24	2.14				10.02					10.02
EXTRACCION VE-15	18.00	28.00	1.00	0.91	Codo			18	28	0.91	24	2.14				10.02					10.02
EXTRACCION VE-15	16.00	10.00	1.00	0.30	Transicion			16	10	0.30	24	0.40				1.86					1.86
EXTRACCION VE-15	24.00	24.00	1.00	0.30	Transicion			24	24	0.30	24	0.73				3.43					3.43
EXTRACCION VE-15	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-16	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-16	18.00	28.00	1.00	0.91	Codo			18	28	0.91	24	2.14				10.02					10.02
EXTRACCION VE-16	18.00	28.00	1.00	0.91	Codo			18	28	0.91	24	2.14				10.02					10.02
EXTRACCION VE-16	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
EXTRACCION VE-16	30.00	14.00	1.00	1.52	Codo			30	14	1.52	24	3.41				15.98					15.98
EXTRACCION VE-16	14.00	30.00	1.00	0.71	Codo			14	30	0.71	24	1.59				7.46					7.46

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-16	14.00	30.00	1.00	0.71	Codo			14	30	0.71	24	1.59				7.46					7.46
EXTRACCION VE-16	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-16	28.00	18.00	1.00	0.30	Transicion			28	18	0.30	24	0.70				3.29					3.29
EXTRACCION VE-16	45.00	45.00	1.00	0.30	Transicion			45	45	0.30	22	1.37				7.71				7.71	
EXTRACCION VE-16	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-16	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-16	12.00	12.00	1.00	0.30	Transicion			12	12	0.30	24	0.37				1.72					1.72
EXTRACCION VE-16	26.00	12.00	1.00	0.30	Transicion			26	12	0.30	24	0.58				2.72					2.72
EXTRACCION VE-16	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-16	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-16	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-16	16.00	16.00	1.00	0.15	Zapato			16	16	0.15	24	0.24				1.14					1.14
EXTRACCION VE-16	14.00	14.00	1.00	0.15	Zapato			14	14	0.15	24	0.21				1.00					1.00
EXTRACCION VE-16	14.00	14.00	1.00	0.15	Zapato			14	14	0.15	24	0.21				1.00					1.00
EXTRACCION VE-16	14.00	14.00	1.00	0.15	Zapato			14	14	0.15	24	0.21				1.00					1.00
EXTRACCION VE-16	14.00	14.00	1.00	0.15	Zapato			14	14	0.15	24	0.21				1.00					1.00
EXTRACCION VE-16	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-16	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-16	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-16	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-16	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-16	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-16	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-16	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-16	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-16	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-16	16.00	6.00	1.00	0.15	Zapato			16	6	0.15	24	0.17				0.79					0.79
EXTRACCION VE-16	16.00	6.00	1.00	0.15	Zapato			16	6	0.15	24	0.17				0.79					0.79
EXTRACCION VE-16	16.00	6.00	1.00	0.15	Zapato			16	6	0.15	24	0.17				0.79					0.79
EXTRACCION VE-16	10.00	6.00	1.00	0.15	Zapato			10	6	0.15	24	0.12				0.57					0.57
EXTRACCION VE-16	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-16	22.00	14.00	1.00	0.15	Zapato			22	14	0.15	24	0.27				1.29					1.29
EXTRACCION VE-16	16.00	6.00	1.00	0.15	Zapato			16	6	0.15	24	0.17				0.79					0.79
EXTRACCION VE-16	16.00	10.00	1.00	0.15	Zapato			16	10	0.15	24	0.20				0.93					0.93
EXTRACCION VE-16	12.00	6.00	1.00	0.15	Zapato			12	6	0.15	24	0.14				0.64					0.64
EXTRACCION VE-16	10.00	6.00	1.00	0.15	Zapato			10	6	0.15	24	0.12				0.57					0.57
EXTRACCION VE-17	30.00	14.00	1.00	1.52	Codo			30	14	1.52	24	3.41				15.98					15.98
EXTRACCION VE-17	14.00	30.00	1.00	0.71	Codo			14	30	0.71	24	1.59				7.46					7.46
EXTRACCION VE-17	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-17	30.00	14.00	1.00	0.30	Transicion			30	14	0.30	24	0.67				3.14					3.14
EXTRACCION VE-17	28.00	28.00	1.00	0.30	Transicion			28	28	0.30	24	0.85				4.00					4.00
EXTRACCION VE-17	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-17	12.00	10.00	1.00	0.30	Transicion			12	10	0.30	24	0.34				1.57					1.57
EXTRACCION VE-17	14.00	12.00	1.00	0.30	Transicion			14	12	0.30	24	0.40				1.86					1.86
EXTRACCION VE-17	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-17	26.00	12.00	1.00	0.15	Zapato			26	12	0.15	24	0.29				1.36					1.36
EXTRACCION VE-17	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-17	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-17	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-17	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-17	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-17	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-17	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-17	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-17	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-17	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-17	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-17	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-17	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-17	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-17	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-17	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-17	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-17	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-17	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-22	12.00	22.00	1.00	0.61	Codo			12	22	0.61	24	1.05				4.94					4.94
EXTRACCION VE-22	18.00	10.00	1.00	0.91	Codo			18	10	0.91	24	1.30				6.10					6.10
EXTRACCION VE-22	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-22	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-22	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-22	20.00	12.00	1.00	1.02	Codo			20	12	1.02	24	1.65				7.75					7.75
EXTRACCION VE-22	12.00	22.00	1.00	0.61	Codo			12	22	0.61	24	1.05				4.94					4.94
EXTRACCION VE-22	14.00	8.00	1.00	0.30	Transicion			14	8	0.30	24	0.34				1.57					1.57
EXTRACCION VE-22	10.00	8.00	1.00	0.30	Transicion			10	8	0.30	24	0.27				1.29					1.29
EXTRACCION VE-22	14.00	8.00	1.00	0.30	Transicion			14	8	0.30	24	0.34				1.57					1.57
EXTRACCION VE-22	12.00	8.00	1.00	0.30	Transicion			12	8	0.30	24	0.30				1.43					1.43
EXTRACCION VE-22	10.00	10.00	1.00	0.30	Transicion			10	10	0.30	24	0.30				1.43					1.43
EXTRACCION VE-22	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
EXTRACCION VE-22	16.00	10.00	1.00	0.30	Transicion			16	10	0.30	24	0.40				1.86					1.86
EXTRACCION VE-22	20.00	12.00	1.00	0.30	Transicion			20	12	0.30	24	0.49				2.29					2.29
EXTRACCION VE-22	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-22	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-22	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-22	10.00	18.00	1.00	0.15	Zapato			10	18	0.15	24	0.21				1.00					1.00
EXTRACCION VE-22	10.00	6.00	1.00	0.15	Zapato			10	6	0.15	24	0.12				0.57					0.57
EXTRACCION VE-22	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-22	10.00	10.00	1.00	0.15	Zapato			10	10	0.15	24	0.15				0.71					0.71
EXTRACCION VE-22	12.00	6.00	1.00	0.15	Zapato			12	6	0.15	24	0.14				0.64					0.64
EXTRACCION VE-22	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-22	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-22	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-22	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-22	12.00	8.00	1.00	0.15	Zapato			12	8	0.15	24	0.15				0.71					0.71
EXTRACCION VE-22	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-22	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-22	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-22	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-22	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-22	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-22	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-22	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-22	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
EXTRACCION VE-22	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-22	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
EXTRACCION VE-23	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-23	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
EXTRACCION VE-23	14.00	6.00	1.00	0.71	Codo			14	6	0.71	24	0.72				3.39					3.39
EXTRACCION VE-23	22.00	16.00	1.00	0.30	Transicion			22	16	0.30	24	0.58				2.72					2.72
EXTRACCION VE-23	32.00	18.00	1.00	0.30	Transicion			32	18	0.30	22	0.76				4.28				4.28	
EXTRACCION VE-23	18.00	8.00	1.00	0.30	Transicion			18	8	0.30	24	0.40				1.86					1.86
EXTRACCION VE-23	12.00	8.00	1.00	0.30	Transicion			12	8	0.30	24	0.30				1.43					1.43
EXTRACCION VE-23	14.00	10.00	1.00	0.15	Zapato			14	10	0.15	24	0.18				0.86					0.86
EXTRACCION VE-23	14.00	22.00	1.00	0.15	Zapato			14	22	0.15	24	0.27				1.29					1.29
EXTRACCION VE-23	12.00	12.00	1.00	0.15	Zapato			12	12	0.15	24	0.18				0.86					0.86
EXTRACCION VE-23	12.00	12.00	1.00	0.15	Zapato			12	12	0.15	24	0.18				0.86					0.86
EXTRACCION VE-23	10.00	10.00	1.00	0.15	Zapato			10	10	0.15	24	0.15				0.71					0.71
EXTRACCION VE-23	10.00	10.00	1.00	0.15	Zapato			10	10	0.15	24	0.15				0.71					0.71
EXTRACCION VE-23D	14.00	6.00	1.00	0.71	Codo			14	6	0.71	24	0.72				3.39					3.39

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
EXTRACCION VE-23D	26.00	10.00	1.00	0.30	Transicion			26	10	0.30	24	0.55				2.57					2.57
RETORNO UFCO-06	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
RETORNO UFCO-06	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
RETORNO UFCO-07	16.00	10.00	1.00	0.81	Codo	E		16	10	0.81	24	1.07	1.24		1.24	5.03					5.03
RETORNO UFCO-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
RETORNO UFCO-07	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
RETORNO UFCO-07	24.00	12.00	1.00	0.15	Zapato	E		24	12	0.15	24	0.27	0.30		0.30	1.29					1.29
RETORNO UFCO-08	16.00	10.00	1.00	0.81	Codo	E		16	10	0.81	24	1.07	1.24		1.24	5.03					5.03
RETORNO UFCO-08	4.00	10.00	1.00	0.15	Zapato	E		4	10	0.15	24	0.11	0.14		0.14	0.50					0.50
RETORNO UFCO-08	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
RETORNO UFCO-08	4.00	10.00	1.00	0.15	Zapato	E		4	10	0.15	24	0.11	0.14		0.14	0.50					0.50
RETORNO UFCO-09A	10.00	10.00	1.00	0.15	Zapato	E		10	10	0.15	24	0.15	0.18		0.18	0.71					0.71
RETORNO UFCO-09A	16.00	16.00	1.00	0.15	Zapato	E		16	16	0.15	24	0.24	0.27		0.27	1.14					1.14
RETORNO UFCO-09B	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
RETORNO UFCO-09B	6.00	12.00	1.00	0.15	Zapato	E		6	12	0.15	24	0.14	0.17		0.17	0.64					0.64
RETORNO UFCO-12	12.00	20.00	1.00	0.61	Codo	E		12	20	0.61	24	0.99	1.11		1.11	4.65					4.65
RETORNO UFCO-12	15.00	15.00	1.00	0.15	Zapato	E		15	15	0.15	24	0.23	0.26		0.26	1.07					1.07
RETORNO UFCO-12	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
RETORNO UFCO-12	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
RETORNO UFCO-12	6.00	12.00	1.00	0.15	Zapato	E		6	12	0.15	24	0.14	0.17		0.17	0.64					0.64
RETORNO UFCO-13	14.00	6.00	1.00	0.71	Codo	E		14	6	0.71	24	0.72	0.87		0.87	3.39					3.39
RETORNO UFCO-13	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
RETORNO UFCO-13	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
RETORNO UFCO-13	10.00	10.00	1.00	0.15	Zapato	E		10	10	0.15	24	0.15	0.18		0.18	0.71					0.71
RETORNO UFCO-16	6.00	10.00	1.00	0.30	Codo	E		6	10	0.30	24	0.25	0.31		0.31	1.16					1.16
RETORNO UFCO-16	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
RETORNO UFCO-16	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
RETORNO UFCO-18	18.00	8.00	1.00	0.91	Codo	E		18	8	0.91	24	1.21	1.39		1.39	5.66					5.66
RETORNO UFCO-18	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
RETORNO UFCO-18	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
RETORNO UFCO-20	16.00	14.00	1.00	0.81	Codo	E		16	14	0.81	24	1.24	1.40		1.40	5.81					5.81
RETORNO UFCO-20	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
RETORNO UFCO-20	10.00	10.00	1.00	0.15	Zapato	E		10	10	0.15	24	0.15	0.18		0.18	0.71					0.71
RETORNO UMA-01	10.00	4.00	1.00	0.51	Codo	E		10	4	0.51	24	0.36	0.46		0.46	1.69					1.69
RETORNO UMA-01	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
RETORNO UMA-01	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
RETORNO UMA-01	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
RETORNO UMAE-06	10.00	16.00	1.00	0.51	Codo	E		10	16	0.51	24	0.67	0.77		0.77	3.15					3.15
RETORNO UMAE-06	10.00	16.00	1.00	0.51	Codo	E		10	16	0.51	24	0.67	0.77		0.77	3.15					3.15
RETORNO UMAE-06	8.00	18.00	1.00	0.41	Codo	E		8	18	0.41	24	0.54	0.62		0.62	2.52					2.52
RETORNO UMAE-06	18.00	74.00	1.00	0.30	Transicion	E		18	74	0.30	22	1.40	1.46		1.46	7.88				7.88	
RETORNO UMAE-06	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
RETORNO UMAE-07	24.00	12.00	1.00	1.22	Codo	E		24	12	1.22	24	2.23	2.48		2.48	10.46					10.46
RETORNO UMAE-07	26.00	14.00	1.00	1.32	Codo	E		26	14	1.32	24	2.68	2.95		2.95	12.59					12.59
RETORNO UMAE-07	18.00	6.00	1.00	0.91	Codo	E		18	6	0.91	24	1.11	1.30		1.30	5.23					5.23
RETORNO UMAE-07	22.00	14.00	1.00	1.12	Codo	E		22	14	1.12	24	2.04	2.27		2.27	9.59					9.59
RETORNO UMAE-07	22.00	14.00	1.00	1.12	Codo	E		22	14	1.12	24	2.04	2.27		2.27	9.59					9.59
RETORNO UMAE-07	18.00	6.00	1.00	0.91	Codo	E		18	6	0.91	24	1.11	1.30		1.30	5.23					5.23
RETORNO UMAE-07	6.00	18.00	1.00	0.30	Codo	E		6	18	0.30	24	0.37	0.43		0.43	1.74					1.74
RETORNO UMAE-07	6.00	18.00	1.00	0.30	Codo	E		6	18	0.30	24	0.37	0.43		0.43	1.74					1.74
RETORNO UMAE-07	14.00	6.00	1.00	0.71	Codo	E		14	6	0.71	24	0.72	0.87		0.87	3.39					3.39
RETORNO UMAE-07	16.00	12.00	1.00	0.81	Codo	E		16	12	0.81	24	1.16	1.32		1.32	5.42					5.42
RETORNO UMAE-07	32.00	18.00	1.00	1.63	Codo	E		32	18	1.63	22	4.13	4.46		4.46	23.21				23.21	
RETORNO UMAE-07	18.00	32.00	1.00	0.91	Codo	E		18	32	0.91	22	2.32	2.51		2.51	13.05				13.05	
RETORNO UMAE-07	14.00	22.00	1.00	0.71	Codo	E		14	22	0.71	24	1.30	1.45		1.45	6.10					6.10
RETORNO UMAE-07	14.00	22.00	1.00	0.71	Codo	E		14	22	0.71	24	1.30	1.45		1.45	6.10					6.10
RETORNO UMAE-07	6.00	12.00	1.00	0.30	Codo	E		6	12	0.30	24	0.28	0.34		0.34	1.31					1.31
RETORNO UMAE-07	6.00	12.00	1.00	0.30	Codo	E		6	12	0.30	24	0.28	0.34		0.34	1.31					1.31
RETORNO UMAE-07	26.00	14.00	1.00	0.30	Transicion	E		26	14	0.30	24	0.61	0.67		0.67	2.86					2.86

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
RETORNO UMAE-07	24.00	10.00	1.00	0.30	Transicion	E		24	10	0.30	24	0.52	0.58		0.58	2.43					2.43
RETORNO UMAE-07	20.00	14.00	1.00	0.30	Transicion	E		20	14	0.30	24	0.52	0.58		0.58	2.43					2.43
RETORNO UMAE-07	22.00	14.00	1.00	0.30	Transicion	E		22	14	0.30	24	0.55	0.61		0.61	2.57					2.57
RETORNO UMAE-07	16.00	12.00	1.00	0.30	Transicion	E		16	12	0.30	24	0.43	0.49		0.49	2.00					2.00
RETORNO UMAE-07	22.00	12.00	1.00	0.30	Transicion	E		22	12	0.30	24	0.52	0.58		0.58	2.43					2.43
RETORNO UMAE-07	14.00	8.00	1.00	0.30	Transicion	E		14	8	0.30	24	0.34	0.40		0.40	1.57					1.57
RETORNO UMAE-07	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
RETORNO UMAE-07	18.00	8.00	1.00	0.15	Zapato	E		18	8	0.15	24	0.20	0.23		0.23	0.93					0.93
RETORNO UMAE-07	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
RETORNO UMAE-07	14.00	14.00	1.00	0.15	Zapato	E		14	14	0.15	24	0.21	0.24		0.24	1.00					1.00
RETORNO UMAE-07	14.00	14.00	1.00	0.15	Zapato	E		14	14	0.15	24	0.21	0.24		0.24	1.00					1.00
RETORNO UMAE-07	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
RETORNO UMAE-07	14.00	14.00	1.00	0.15	Zapato	E		14	14	0.15	24	0.21	0.24		0.24	1.00					1.00
RETORNO UMAE-07	14.00	14.00	1.00	0.15	Zapato	E		14	14	0.15	24	0.21	0.24		0.24	1.00					1.00
RETORNO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
RETORNO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
RETORNO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
RETORNO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
RETORNO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
RETORNO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
RETORNO UMAE-07	24.00	12.00	1.00	0.15	Zapato	E		24	12	0.15	24	0.27	0.30		0.30	1.29					1.29
RETORNO UMAE-07	24.00	10.00	1.00	0.15	Zapato	E		24	10	0.15	24	0.26	0.29		0.29	1.22					1.22
RETORNO UMAE-08	10.00	4.00	1.00	0.51	Codo	E		10	4	0.51	24	0.36	0.46		0.46	1.69					1.69
RETORNO UMAE-08	12.00	20.00	1.00	0.61	Codo	E		12	20	0.61	24	0.99	1.11		1.11	4.65					4.65
RETORNO UMAE-08	12.00	20.00	1.00	0.61	Codo	E		12	20	0.61	24	0.99	1.11		1.11	4.65					4.65
RETORNO UMAE-08	18.00	8.00	1.00	0.91	Codo	E		18	8	0.91	24	1.21	1.39		1.39	5.66					5.66
RETORNO UMAE-08	6.00	30.00	1.00	0.30	Transicion	E		6	30	0.30	24	0.55	0.61		0.61	2.57					2.57
RETORNO UMAE-08	22.00	14.00	1.00	0.15	Zapato	E		22	14	0.15	24	0.27	0.30		0.30	1.29					1.29
RETORNO UMAE-08	10.00	6.00	1.00	0.15	Zapato	E		10	6	0.15	24	0.12	0.15		0.15	0.57					0.57
RETORNO UMAE-08	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
RETORNO UMAE-08	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
RETORNO UMAE-15	30.00	14.00	1.00	1.52	Codo	E		30	14	1.52	24	3.41	3.72		3.72	15.98					15.98
RETORNO UMAE-15	14.00	30.00	1.00	0.71	Codo	E		14	30	0.71	24	1.59	1.73		1.73	7.46					7.46
RETORNO UMAE-15	14.00	6.00	1.00	0.71	Codo	E		14	6	0.71	24	0.72	0.87		0.87	3.39					3.39
RETORNO UMAE-15	6.00	10.00	1.00	0.30	Codo	E		6	10	0.30	24	0.25	0.31		0.31	1.16					1.16
RETORNO UMAE-15	14.00	6.00	1.00	0.71	Codo	E		14	6	0.71	24	0.72	0.87		0.87	3.39					3.39
RETORNO UMAE-15	6.00	10.00	1.00	0.30	Codo	E		6	10	0.30	24	0.25	0.31		0.31	1.16					1.16
RETORNO UMAE-15	6.00	10.00	1.00	0.30	Codo	E		6	10	0.30	24	0.25	0.31		0.31	1.16					1.16
RETORNO UMAE-15	16.00	14.00	1.00	0.81	Codo	E		16	14	0.81	24	1.24	1.40		1.40	5.81					5.81
RETORNO UMAE-15	16.00	14.00	1.00	0.81	Codo	E		16	14	0.81	24	1.24	1.40		1.40	5.81					5.81
RETORNO UMAE-15	49.00	37.00	1.00	0.30	Transicion	E		49	37	0.30	22	1.31	1.37		1.37	7.37				7.37	
RETORNO UMAE-15	40.00	12.00	1.00	0.30	Transicion	E		40	12	0.30	22	0.79	0.85		0.85	4.45				4.45	
RETORNO UMAE-15	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
RETORNO UMAE-15	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
RETORNO UMAE-15	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
RETORNO UMAE-15	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
RETORNO UMAE-15	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
RETORNO UMAE-15	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
RETORNO UMAE-15	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
RETORNO UMAE-15	14.00	6.00	1.00	0.15	Zapato	E		14	6	0.15	24	0.15	0.18		0.18	0.71					0.71
RETORNO UMAE-19	10.00	28.00	1.00	0.51	Codo	E		10	28	0.51	24	0.98	1.08		1.08	4.60					4.60
RETORNO UMAE-19	28.00	10.00	1.00	1.42	Codo	E		28	10	1.42	24	2.75	3.03		3.03	12.88					12.88
RETORNO UMAE-19	16.00	8.00	1.00	0.81	Codo	E		16	8	0.81	24	0.99	1.16		1.16	4.65					4.65
RETORNO UMAE-19	16.00	10.00	1.00	0.81	Codo	E		16	10	0.81	24	1.07	1.24		1.24	5.03					5.03
RETORNO UMAE-19	16.00	6.00	1.00	0.30	Transicion	E		16	6	0.30	24	0.34	0.40		0.40	1.57					1.57
RETORNO UMAE-19	43.00	30.00	1.00	0.30	Transicion	E		43	30	0.30	22	1.11	1.17		1.17	6.25				6.25	
RETORNO UMAE-19	12.00	8.00	1.00	0.30	Transicion	E		12	8	0.30	24	0.30	0.37		0.37	1.43					1.43
RETORNO UMAE-19	16.00	10.00	1.00	0.30	Transicion	E		16	10	0.30	24	0.40	0.46		0.46	1.86					1.86
RETORNO UMAE-19	12.00	8.00	1.00	0.30	Transicion	E		12	8	0.30	24	0.30	0.37		0.37	1.43					1.43

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
RETORNO UMAE-19	10.00	6.00	1.00	0.15	Zapato	E		10	6	0.15	24	0.12	0.15		0.15	0.57					0.57
RETORNO UMAE-19	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
RETORNO UMAE-19	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
RETORNO UMAE-19	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
RETORNO UMAE-19	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
RETORNO UMAE-19	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
RETORNO UMAE-19	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
RETORNO UMAE-19	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
RETORNO UMAE-19	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
RETORNO UMAE-19	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
RETORNO UMAE-19	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
SUMINISTRO UFCO-06	10.00	12.00	1.00	0.51	Codo	E		10	12	0.51	24	0.57	0.67		0.67	2.66					2.66
SUMINISTRO UFCO-06	10.00	12.00	1.00	0.51	Codo	E		10	12	0.51	24	0.57	0.67		0.67	2.66					2.66
SUMINISTRO UFCO-06	10.00	6.00	1.00	0.30	Transicion	E		10	6	0.30	24	0.24	0.30		0.30	1.14					1.14
SUMINISTRO UFCO-06	12.00	8.00	1.00	0.30	Transicion	E		12	8	0.30	24	0.30	0.37		0.37	1.43					1.43
SUMINISTRO UFCO-06	16.00	10.00	1.00	0.30	Transicion	E		16	10	0.30	24	0.40	0.46		0.46	1.86					1.86
SUMINISTRO UFCO-06	16.00	16.00	1.00	0.15	Zapato	E		16	16	0.15	24	0.24	0.27		0.27	1.14					1.14
SUMINISTRO UFCO-06	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UFCO-06	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UFCO-07	40.00	12.00	1.00	0.30	Transicion	E		40	12	0.30	22	0.79	0.85		0.85	4.45				4.45	
SUMINISTRO UFCO-07	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UFCO-08	12.00	8.00	1.00	0.30	Transicion	E		12	8	0.30	24	0.30	0.37		0.37	1.43					1.43
SUMINISTRO UFCO-08	10.00	10.00	1.00	0.15	Zapato	E		10	10	0.15	24	0.15	0.18		0.18	0.71					0.71
SUMINISTRO UFCO-09A	10.00	4.00	1.00	0.51	Codo	E		10	4	0.51	24	0.36	0.46		0.46	1.69					1.69
SUMINISTRO UFCO-09A	24.00	24.00	1.00	0.30	Transicion	E		24	24	0.30	24	0.73	0.79		0.79	3.43					3.43
SUMINISTRO UFCO-09A	40.00	12.00	1.00	0.30	Transicion	E		40	12	0.30	22	0.79	0.85		0.85	4.45				4.45	
SUMINISTRO UFCO-09A	4.00	10.00	1.00	0.15	Zapato	E		4	10	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UFCO-09A	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
SUMINISTRO UFCO-09B	10.00	4.00	1.00	0.51	Codo	E		10	4	0.51	24	0.36	0.46		0.46	1.69					1.69
SUMINISTRO UFCO-09B	40.00	12.00	1.00	0.30	Transicion	E		40	12	0.30	22	0.79	0.85		0.85	4.45				4.45	
SUMINISTRO UFCO-09B	18.00	8.00	1.00	0.30	Transicion	E		18	8	0.30	24	0.40	0.46		0.46	1.86					1.86
SUMINISTRO UFCO-09B	4.00	10.00	1.00	0.15	Zapato	E		4	10	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UFCO-09B	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
SUMINISTRO UFCO-12	12.00	20.00	1.00	0.61	Codo	E		12	20	0.61	24	0.99	1.11		1.11	4.65					4.65
SUMINISTRO UFCO-12	16.00	8.00	1.00	0.30	Transicion	E		16	8	0.30	24	0.37	0.43		0.43	1.72					1.72
SUMINISTRO UFCO-12	18.00	10.00	1.00	0.30	Transicion	E		18	10	0.30	24	0.43	0.49		0.49	2.00					2.00
SUMINISTRO UFCO-12	14.00	14.00	1.00	0.15	Zapato	E		14	14	0.15	24	0.21	0.24		0.24	1.00					1.00
SUMINISTRO UFCO-12	14.00	14.00	1.00	0.15	Zapato	E		14	14	0.15	24	0.21	0.24		0.24	1.00					1.00
SUMINISTRO UFCO-12	15.00	15.00	1.00	0.15	Zapato	E		15	15	0.15	24	0.23	0.26		0.26	1.07					1.07
SUMINISTRO UFCO-12	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UFCO-13	10.00	4.00	1.00	0.51	Codo	E		10	4	0.51	24	0.36	0.46		0.46	1.69					1.69
SUMINISTRO UFCO-13	14.00	6.00	1.00	0.71	Codo	E		14	6	0.71	24	0.72	0.87		0.87	3.39					3.39
SUMINISTRO UFCO-13	20.00	8.00	1.00	0.30	Transicion	E		20	8	0.30	24	0.43	0.49		0.49	2.00					2.00
SUMINISTRO UFCO-13	40.00	12.00	1.00	0.30	Transicion	E		40	12	0.30	22	0.79	0.85		0.85	4.45				4.45	
SUMINISTRO UFCO-13	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UFCO-13	6.00	14.00	1.00	0.15	Zapato	E		6	14	0.15	24	0.15	0.18		0.18	0.71					0.71
SUMINISTRO UFCO-13	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UFCO-16	14.00	10.00	1.00	0.30	Transicion	E		14	10	0.30	24	0.37	0.43		0.43	1.72					1.72
SUMINISTRO UFCO-16	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
SUMINISTRO UFCO-18	18.00	8.00	1.00	0.30	Transicion	E		18	8	0.30	24	0.40	0.46		0.46	1.86					1.86
SUMINISTRO UFCO-18	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UFCO-20	24.00	24.00	1.00	0.30	Transicion	E		24	24	0.30	24	0.73	0.79		0.79	3.43					3.43
SUMINISTRO UFCO-20	12.00	10.00	1.00	0.15	Zapato	E		12	10	0.15	24	0.17	0.20		0.20	0.79					0.79
SUMINISTRO UMA-01	10.00	4.00	1.00	0.51	Codo	E		10	4	0.51	24	0.36	0.46		0.46	1.69					1.69
SUMINISTRO UMA-01	10.00	4.00	1.00	0.51	Codo	E		10	4	0.51	24	0.36	0.46		0.46	1.69					1.69
SUMINISTRO UMA-01	14.00	10.00	1.00	0.71	Codo	E		14	10	0.71	24	0.87	1.01		1.01	4.07					4.07
SUMINISTRO UMA-01	10.00	16.00	1.00	0.51	Codo	E		10	16	0.51	24	0.67	0.77		0.77	3.15					3.15
SUMINISTRO UMA-01	6.00	16.00	1.00	0.30	Codo	E		6	16	0.30	24	0.34	0.40		0.40	1.60					1.60

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
SUMINISTRO UMA-01	10.00	16.00	1.00	0.51	Codo	E		10	16	0.51	24	0.67	0.77		0.77	3.15					3.15
SUMINISTRO UMA-01	8.00	14.00	1.00	0.41	Codo	E		8	14	0.41	24	0.45	0.54		0.54	2.13					2.13
SUMINISTRO UMA-01	14.00	8.00	1.00	0.71	Codo	E		14	8	0.71	24	0.79	0.94		0.94	3.73					3.73
SUMINISTRO UMA-01	10.00	4.00	1.00	0.51	Codo	E		10	4	0.51	24	0.36	0.46		0.46	1.69					1.69
SUMINISTRO UMA-01	4.00	10.00	1.00	0.20	Codo	E		4	10	0.20	24	0.14	0.19		0.19	0.68					0.68
SUMINISTRO UMA-01	4.00	10.00	1.00	0.20	Codo	E		4	10	0.20	24	0.14	0.19		0.19	0.68					0.68
SUMINISTRO UMA-01	12.00	4.00	1.00	0.30	Transicion	E		12	4	0.30	24	0.24	0.30		0.30	1.14					1.14
SUMINISTRO UMA-01	14.00	6.00	1.00	0.30	Transicion	E		14	6	0.30	24	0.30	0.37		0.37	1.43					1.43
SUMINISTRO UMA-01	10.00	6.00	1.00	0.30	Transicion	E		10	6	0.30	24	0.24	0.30		0.30	1.14					1.14
SUMINISTRO UMA-01	14.00	6.00	1.00	0.30	Transicion	E		14	6	0.30	24	0.30	0.37		0.37	1.43					1.43
SUMINISTRO UMA-01	12.00	6.00	1.00	0.30	Transicion	E		12	6	0.30	24	0.27	0.34		0.34	1.29					1.29
SUMINISTRO UMA-01	36.00	36.00	1.00	0.30	Transicion	E		36	36	0.30	22	1.10	1.16		1.16	6.17				6.17	
SUMINISTRO UMA-01	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
SUMINISTRO UMA-01	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
SUMINISTRO UMA-01	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMA-01	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMA-01	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UMA-01	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
SUMINISTRO UMA-01	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UMA-01	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMA-01	12.00	8.00	1.00	0.15	Zapato	E		12	8	0.15	24	0.15	0.18		0.18	0.71					0.71
SUMINISTRO UMA-01	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMA-01	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMA-01	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMA-01	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-06	4.00	10.00	1.00	0.20	Codo	E		4	10	0.20	24	0.14	0.19		0.19	0.68					0.68
SUMINISTRO UMAE-06	14.00	8.00	1.00	0.71	Codo	E		14	8	0.71	24	0.79	0.94		0.94	3.73					3.73
SUMINISTRO UMAE-06	10.00	4.00	1.00	0.51	Codo	E		10	4	0.51	24	0.36	0.46		0.46	1.69					1.69
SUMINISTRO UMAE-06	16.00	20.00	1.00	0.81	Codo	E		16	20	0.81	24	1.49	1.65		1.65	6.97					6.97
SUMINISTRO UMAE-06	20.00	16.00	1.00	1.02	Codo	E		20	16	1.02	24	1.86	2.06		2.06	8.71					8.71
SUMINISTRO UMAE-06	10.00	16.00	1.00	0.51	Codo	E		10	16	0.51	24	0.67	0.77		0.77	3.15					3.15
SUMINISTRO UMAE-06	16.00	10.00	1.00	0.81	Codo	E		16	10	0.81	24	1.07	1.24		1.24	5.03					5.03
SUMINISTRO UMAE-06	10.00	16.00	1.00	0.51	Codo	E		10	16	0.51	24	0.67	0.77		0.77	3.15					3.15
SUMINISTRO UMAE-06	16.00	14.00	1.00	0.30	Transicion	E		16	14	0.30	24	0.46	0.52		0.52	2.14					2.14
SUMINISTRO UMAE-06	24.00	24.00	1.00	0.30	Transicion	E		24	24	0.30	24	0.73	0.79		0.79	3.43					3.43
SUMINISTRO UMAE-06	10.00	6.00	1.00	0.30	Transicion	E		10	6	0.30	24	0.24	0.30		0.30	1.14					1.14
SUMINISTRO UMAE-06	14.00	6.00	1.00	0.30	Transicion	E		14	6	0.30	24	0.30	0.37		0.37	1.43					1.43
SUMINISTRO UMAE-06	12.00	6.00	1.00	0.30	Transicion	E		12	6	0.30	24	0.27	0.34		0.34	1.29					1.29
SUMINISTRO UMAE-06	10.00	6.00	1.00	0.15	Zapato	E		10	6	0.15	24	0.12	0.15		0.15	0.57					0.57
SUMINISTRO UMAE-06	14.00	14.00	1.00	0.15	Zapato	E		14	14	0.15	24	0.21	0.24		0.24	1.00					1.00
SUMINISTRO UMAE-06	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-06	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-06	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-06	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-06	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-06	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-06	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-06	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UMAE-06	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UMAE-06	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UMAE-06	6.00	14.00	1.00	0.15	Zapato	E		6	14	0.15	24	0.15	0.18		0.18	0.71					0.71
SUMINISTRO UMAE-06	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-06	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-06	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UMAE-07	10.00	6.00	1.00	0.51	Codo	E		10	6	0.51	24	0.41	0.52		0.52	1.94					1.94
SUMINISTRO UMAE-07	10.00	6.00	1.00	0.51	Codo	E		10	6	0.51	24	0.41	0.52		0.52	1.94					1.94
SUMINISTRO UMAE-07	12.00	6.00	1.00	0.61	Codo	E		12	6	0.61	24	0.56	0.68		0.68	2.61					2.61
SUMINISTRO UMAE-07	18.00	8.00	1.00	0.91	Codo	E		18	8	0.91	24	1.21	1.39		1.39	5.66					5.66
SUMINISTRO UMAE-07	16.00	8.00	1.00	0.81	Codo	E		16	8	0.81	24	0.99	1.16		1.16	4.65					4.65

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
SUMINISTRO UMAE-07	20.00	10.00	1.00	1.02	Codo	E		20	10	1.02	24	1.55	1.75		1.75	7.26					7.26
SUMINISTRO UMAE-07	24.00	12.00	1.00	1.22	Codo	E		24	12	1.22	24	2.23	2.48		2.48	10.46					10.46
SUMINISTRO UMAE-07	14.00	28.00	1.00	0.71	Codo	E		14	28	0.71	24	1.52	1.66		1.66	7.12					7.12
SUMINISTRO UMAE-07	14.00	28.00	1.00	0.71	Codo	E		14	28	0.71	24	1.52	1.66		1.66	7.12					7.12
SUMINISTRO UMAE-07	24.00	10.00	1.00	1.22	Codo	E		24	10	1.22	24	2.11	2.35		2.35	9.88					9.88
SUMINISTRO UMAE-07	14.00	26.00	1.00	0.71	Codo	E		14	26	0.71	24	1.45	1.59		1.59	6.78					6.78
SUMINISTRO UMAE-07	14.00	26.00	1.00	0.71	Codo	E		14	26	0.71	24	1.45	1.59		1.59	6.78					6.78
SUMINISTRO UMAE-07	10.00	24.00	1.00	0.51	Codo	E		10	24	0.51	24	0.88	0.98		0.98	4.12					4.12
SUMINISTRO UMAE-07	10.00	24.00	1.00	0.51	Codo	E		10	24	0.51	24	0.88	0.98		0.98	4.12					4.12
SUMINISTRO UMAE-07	32.00	18.00	1.00	1.63	Codo	E		32	18	1.63	22	4.13	4.46		4.46	23.21				23.21	
SUMINISTRO UMAE-07	32.00	18.00	1.00	1.63	Codo	E		32	18	1.63	22	4.13	4.46		4.46	23.21				23.21	
SUMINISTRO UMAE-07	16.00	10.00	1.00	0.30	Transicion	E		16	10	0.30	24	0.40	0.46		0.46	1.86					1.86
SUMINISTRO UMAE-07	14.00	8.00	1.00	0.30	Transicion	E		14	8	0.30	24	0.34	0.40		0.40	1.57					1.57
SUMINISTRO UMAE-07	16.00	10.00	1.00	0.30	Transicion	E		16	10	0.30	24	0.40	0.46		0.46	1.86					1.86
SUMINISTRO UMAE-07	20.00	10.00	1.00	0.30	Transicion	E		20	10	0.30	24	0.46	0.52		0.52	2.14					2.14
SUMINISTRO UMAE-07	24.00	12.00	1.00	0.30	Transicion	E		24	12	0.30	24	0.55	0.61		0.61	2.57					2.57
SUMINISTRO UMAE-07	18.00	8.00	1.00	0.30	Transicion	E		18	8	0.30	24	0.40	0.46		0.46	1.86					1.86
SUMINISTRO UMAE-07	32.00	18.00	1.00	0.30	Transicion	E		32	18	0.30	22	0.76	0.82		0.82	4.28				4.28	
SUMINISTRO UMAE-07	28.00	14.00	1.00	0.30	Transicion	E		28	14	0.30	24	0.64	0.70		0.70	3.00					3.00
SUMINISTRO UMAE-07	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UMAE-07	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UMAE-07	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UMAE-07	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-07	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-07	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-07	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-07	14.00	8.00	1.00	0.15	Zapato	E		14	8	0.15	24	0.17	0.20		0.20	0.79					0.79
SUMINISTRO UMAE-07	14.00	8.00	1.00	0.15	Zapato	E		14	8	0.15	24	0.17	0.20		0.20	0.79					0.79
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-07	18.00	8.00	1.00	0.15	Zapato	E		18	8	0.15	24	0.20	0.23		0.23	0.93					0.93
SUMINISTRO UMAE-07	14.00	6.00	1.00	0.15	Zapato	E		14	6	0.15	24	0.15	0.18		0.18	0.71					0.71
SUMINISTRO UMAE-07	14.00	6.00	1.00	0.15	Zapato	E		14	6	0.15	24	0.15	0.18		0.18	0.71					0.71
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-07	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-07	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-07	14.00	8.00	1.00	0.15	Zapato	E		14	8	0.15	24	0.17	0.20		0.20	0.79					0.79
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-07	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-07	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-07	16.00	8.00	1.00	0.15	Zapato	E		16	8	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-07	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-07	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
SUMINISTRO UMAE-08	10.00	4.00	1.00	0.51	Codo	E		10	4	0.51	24	0.36	0.46		0.46	1.69					1.69
SUMINISTRO UMAE-08	10.00	6.00	1.00	0.51	Codo	E		10	6	0.51	24	0.41	0.52		0.52	1.94					1.94
SUMINISTRO UMAE-08	6.00	10.00	1.00	0.30	Codo	E		6	10	0.30	24	0.25	0.31		0.31	1.16					1.16
SUMINISTRO UMAE-08	20.00	12.00	1.00	1.02	Codo	E		20	12	1.02	24	1.65	1.86		1.86	7.75					7.75
SUMINISTRO UMAE-08	18.00	32.00	1.00	0.91	Codo	E		18	32	0.91	22	2.32	2.51		2.51	13.05				13.05	
SUMINISTRO UMAE-08	18.00	32.00	1.00	0.91	Codo	E		18	32	0.91	22	2.32	2.51		2.51	13.05				13.05	

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
SUMINISTRO UMAE-08	20.00	12.00	1.00	1.02	Codo	E		20	12	1.02	24	1.65	1.86		1.86	7.75					7.75
SUMINISTRO UMAE-08	12.00	20.00	1.00	0.61	Codo	E		12	20	0.61	24	0.99	1.11		1.11	4.65					4.65
SUMINISTRO UMAE-08	40.00	12.00	1.00	0.30	Transicion	E		40	12	0.30	22	0.79	0.85		0.85	4.45				4.45	
SUMINISTRO UMAE-08	40.00	12.00	1.00	0.30	Transicion	E		40	12	0.30	22	0.79	0.85		0.85	4.45				4.45	
SUMINISTRO UMAE-08	14.00	10.00	1.00	0.30	Transicion	E		14	10	0.30	24	0.37	0.43		0.43	1.72					1.72
SUMINISTRO UMAE-08	20.00	12.00	1.00	0.30	Transicion	E		20	12	0.30	24	0.49	0.55		0.55	2.29					2.29
SUMINISTRO UMAE-08	4.00	10.00	1.00	0.15	Zapato	E		4	10	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UMAE-15	10.00	4.00	1.00	0.51	Codo	E		10	4	0.51	24	0.36	0.46		0.46	1.69					1.69
SUMINISTRO UMAE-15	18.00	8.00	1.00	0.91	Codo	E		18	8	0.91	24	1.21	1.39		1.39	5.66					5.66
SUMINISTRO UMAE-15	8.00	18.00	1.00	0.41	Codo	E		8	18	0.41	24	0.54	0.62		0.62	2.52					2.52
SUMINISTRO UMAE-15	10.00	4.00	1.00	0.51	Codo	E		10	4	0.51	24	0.36	0.46		0.46	1.69					1.69
SUMINISTRO UMAE-15	10.00	4.00	1.00	0.51	Codo	E		10	4	0.51	24	0.36	0.46		0.46	1.69					1.69
SUMINISTRO UMAE-15	6.00	10.00	1.00	0.30	Codo	E		6	10	0.30	24	0.25	0.31		0.31	1.16					1.16
SUMINISTRO UMAE-15	16.00	8.00	1.00	0.30	Transicion	E		16	8	0.30	24	0.37	0.43		0.43	1.72					1.72
SUMINISTRO UMAE-15	16.00	10.00	1.00	0.30	Transicion	E		16	10	0.30	24	0.40	0.46		0.46	1.86					1.86
SUMINISTRO UMAE-15	12.00	6.00	1.00	0.30	Transicion	E		12	6	0.30	24	0.27	0.34		0.34	1.29					1.29
SUMINISTRO UMAE-15	30.00	6.00	1.00	0.30	Transicion	E		30	6	0.30	24	0.55	0.61		0.61	2.57					2.57
SUMINISTRO UMAE-15	12.00	43.00	1.00	0.30	Transicion	E		12	43	0.30	22	0.84	0.90		0.90	4.71				4.71	
SUMINISTRO UMAE-15	12.00	8.00	1.00	0.30	Transicion	E		12	8	0.30	24	0.30	0.37		0.37	1.43					1.43
SUMINISTRO UMAE-15	16.00	6.00	1.00	0.30	Transicion	E		16	6	0.30	24	0.34	0.40		0.40	1.57					1.57
SUMINISTRO UMAE-15	14.00	8.00	1.00	0.30	Transicion	E		14	8	0.30	24	0.34	0.40		0.40	1.57					1.57
SUMINISTRO UMAE-15	22.00	10.00	1.00	0.30	Transicion	E		22	10	0.30	24	0.49	0.55		0.55	2.29					2.29
SUMINISTRO UMAE-15	30.00	14.00	1.00	0.30	Transicion	E		30	14	0.30	24	0.67	0.73		0.73	3.14					3.14
SUMINISTRO UMAE-15	20.00	12.00	1.00	0.30	Transicion	E		20	12	0.30	24	0.49	0.55		0.55	2.29					2.29
SUMINISTRO UMAE-15	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-15	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-15	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-15	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-15	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-15	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-15	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-15	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-15	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UMAE-15	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-15	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-15	16.00	6.00	1.00	0.15	Zapato	E		16	6	0.15	24	0.17	0.20		0.20	0.79					0.79
SUMINISTRO UMAE-15	12.00	8.00	1.00	0.15	Zapato	E		12	8	0.15	24	0.15	0.18		0.18	0.71					0.71
SUMINISTRO UMAE-15	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UMAE-15	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-15	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-15	20.00	8.00	1.00	0.15	Zapato	E		20	8	0.15	24	0.21	0.24		0.24	1.00					1.00
SUMINISTRO UMAE-15	22.00	10.00	1.00	0.15	Zapato	E		22	10	0.15	24	0.24	0.27		0.27	1.14					1.14
SUMINISTRO UMAE-19	16.00	10.00	1.00	0.81	Calsoncillo	E		16	10	0.81	24	1.07	1.24		1.24	5.03					5.03
SUMINISTRO UMAE-19	16.00	10.00	1.00	0.81	Calsoncillo	E		16	10	0.81	24	1.07	1.24		1.24	5.03					5.03
SUMINISTRO UMAE-19	10.00	4.00	1.00	0.51	Codo	E		10	4	0.51	24	0.36	0.46		0.46	1.69					1.69
SUMINISTRO UMAE-19	8.00	14.00	1.00	0.41	Codo	E		8	14	0.41	24	0.45	0.54		0.54	2.13					2.13
SUMINISTRO UMAE-19	10.00	4.00	1.00	0.51	Codo	E		10	4	0.51	24	0.36	0.46		0.46	1.69					1.69
SUMINISTRO UMAE-19	14.00	10.00	1.00	0.71	Codo	E		14	10	0.71	24	0.87	1.01		1.01	4.07					4.07

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
SUMINISTRO UMAE-19	10.00	4.00	1.00	0.51	Codo	E		10	4	0.51	24	0.36	0.46		0.46	1.69					1.69
SUMINISTRO UMAE-19	12.00	6.00	1.00	0.61	Codo	E		12	6	0.61	24	0.56	0.68		0.68	2.61					2.61
SUMINISTRO UMAE-19	16.00	10.00	1.00	0.81	Codo	E		16	10	0.81	24	1.07	1.24		1.24	5.03					5.03
SUMINISTRO UMAE-19	4.00	10.00	1.00	0.20	Codo	E		4	10	0.20	24	0.14	0.19		0.19	0.68					0.68
SUMINISTRO UMAE-19	10.00	4.00	1.00	0.51	Codo	E		10	4	0.51	24	0.36	0.46		0.46	1.69					1.69
SUMINISTRO UMAE-19	10.00	6.00	1.00	0.51	Codo	E		10	6	0.51	24	0.41	0.52		0.52	1.94					1.94
SUMINISTRO UMAE-19	16.00	10.00	1.00	0.30	Transicion	E		16	10	0.30	24	0.40	0.46		0.46	1.86					1.86
SUMINISTRO UMAE-19	12.00	6.00	1.00	0.30	Transicion	E		12	6	0.30	24	0.27	0.34		0.34	1.29					1.29
SUMINISTRO UMAE-19	12.00	6.00	1.00	0.30	Transicion	E		12	6	0.30	24	0.27	0.34		0.34	1.29					1.29
SUMINISTRO UMAE-19	12.00	10.00	1.00	0.30	Transicion	E		12	10	0.30	24	0.34	0.40		0.40	1.57					1.57
SUMINISTRO UMAE-19	14.00	10.00	1.00	0.30	Transicion	E		14	10	0.30	24	0.37	0.43		0.43	1.72					1.72
SUMINISTRO UMAE-19	16.00	10.00	1.00	0.30	Transicion	E		16	10	0.30	24	0.40	0.46		0.46	1.86					1.86
SUMINISTRO UMAE-19	12.00	6.00	1.00	0.30	Transicion	E		12	6	0.30	24	0.27	0.34		0.34	1.29					1.29
SUMINISTRO UMAE-19	40.00	12.00	1.00	0.30	Transicion	E		40	12	0.30	22	0.79	0.85		0.85	4.45				4.45	
SUMINISTRO UMAE-19	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
SUMINISTRO UMAE-19	8.00	8.00	1.00	0.15	Zapato	E		8	8	0.15	24	0.12	0.15		0.15	0.57					0.57
SUMINISTRO UMAE-19	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-19	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-19	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-19	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UMAE-19	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-19	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UMAE-19	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-19	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-19	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-19	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UMAE-19	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-19	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-19	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UMAE-19	9.00	9.00	1.00	0.15	Zapato	E		9	9	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-19	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-19	12.00	12.00	1.00	0.15	Zapato	E		12	12	0.15	24	0.18	0.21		0.21	0.86					0.86
SUMINISTRO UMAE-19	12.00	6.00	1.00	0.15	Zapato	E		12	6	0.15	24	0.14	0.17		0.17	0.64					0.64
SUMINISTRO UMAE-19	10.00	4.00	1.00	0.15	Zapato	E		10	4	0.15	24	0.11	0.14		0.14	0.50					0.50
SUMINISTRO UMAE-19	4.00	10.00	1.00	0.15	Zapato	E		4	10	0.15	24	0.11	0.14		0.14	0.50					0.50
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
VENTILACION MECANICA VS-02	16.00	10.00	1.00	0.81	Codo			16	10	0.81	24	1.07				5.03					5.03
VENTILACION MECANICA VS-02	10.00	16.00	1.00	0.51	Codo			10	16	0.51	24	0.67				3.15					3.15
VENTILACION MECANICA VS-02	14.00	8.00	1.00	0.71	Codo			14	8	0.71	24	0.79				3.73					3.73
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
VENTILACION MECANICA VS-02	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
VENTILACION MECANICA VS-02	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
VENTILACION MECANICA VS-02	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
VENTILACION MECANICA VS-02	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
VENTILACION MECANICA VS-02	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
VENTILACION MECANICA VS-02	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
VENTILACION MECANICA VS-02	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
VENTILACION MECANICA VS-02	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
VENTILACION MECANICA VS-02	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
VENTILACION MECANICA VS-02	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
VENTILACION MECANICA VS-02	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
VENTILACION MECANICA VS-02	14.00	8.00	1.00	0.71	Codo			14	8	0.71	24	0.79				3.73					3.73
VENTILACION MECANICA VS-02	8.00	14.00	1.00	0.41	Codo			8	14	0.41	24	0.45				2.13					2.13
VENTILACION MECANICA VS-02	14.00	12.00	1.00	0.71	Codo			14	12	0.71	24	0.94				4.41					4.41
VENTILACION MECANICA VS-02	12.00	14.00	1.00	0.61	Codo			12	14	0.61	24	0.81				3.78					3.78
VENTILACION MECANICA VS-02	8.00	14.00	1.00	0.41	Codo			8	14	0.41	24	0.45				2.13					2.13
VENTILACION MECANICA VS-02	14.00	10.00	1.00	0.30	Transicion			14	10	0.30	24	0.37				1.72					1.72
VENTILACION MECANICA VS-02	13.00	13.00	1.00	0.30	Transicion			13	13	0.30	24	0.40				1.86					1.86

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
VENTILACION MECANICA VS-02	10.00	8.00	1.00	0.30	Transicion			10	8	0.30	24	0.27				1.29					1.29
VENTILACION MECANICA VS-02	12.00	8.00	1.00	0.30	Transicion			12	8	0.30	24	0.30				1.43					1.43
VENTILACION MECANICA VS-02	14.00	8.00	1.00	0.30	Transicion			14	8	0.30	24	0.34				1.57					1.57
VENTILACION MECANICA VS-02	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
VENTILACION MECANICA VS-02	20.00	10.00	1.00	0.15	Zapato			20	10	0.15	24	0.23				1.07					1.07
VENTILACION MECANICA VS-02	6.00	16.00	1.00	0.15	Zapato			6	16	0.15	24	0.17				0.79					0.79
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
VENTILACION MECANICA VS-02	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
VENTILACION MECANICA VS-02	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
VENTILACION MECANICA VS-04	14.00	28.00	1.00	0.71	Codo			14	28	0.71	24	1.52				7.12					7.12
VENTILACION MECANICA VS-04	14.00	28.00	1.00	0.71	Codo			14	28	0.71	24	1.52				7.12					7.12
VENTILACION MECANICA VS-04	18.00	8.00	1.00	0.91	Codo			18	8	0.91	24	1.21				5.66					5.66
VENTILACION MECANICA VS-04	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
VENTILACION MECANICA VS-04	14.00	6.00	1.00	0.71	Codo			14	6	0.71	24	0.72				3.39					3.39
VENTILACION MECANICA VS-04	18.00	32.00	1.00	0.91	Codo			18	32	0.91	22	2.32				13.05				13.05	
VENTILACION MECANICA VS-04	20.00	12.00	1.00	1.02	Codo			20	12	1.02	24	1.65				7.75					7.75
VENTILACION MECANICA VS-04	12.00	20.00	1.00	0.61	Codo			12	20	0.61	24	0.99				4.65					4.65
VENTILACION MECANICA VS-04	20.00	8.00	1.00	0.30	Transicion			20	8	0.30	24	0.43				2.00					2.00
VENTILACION MECANICA VS-04	14.00	10.00	1.00	0.30	Transicion			14	10	0.30	24	0.37				1.72					1.72
VENTILACION MECANICA VS-04	43.00	24.00	1.00	0.30	Transicion			43	24	0.30	22	1.02				5.74				5.74	
VENTILACION MECANICA VS-04	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
VENTILACION MECANICA VS-04	4.00	10.00	1.00	0.15	Zapato			4	10	0.15	24	0.11				0.50					0.50
VENTILACION MECANICA VS-04	26.00	12.00	1.00	0.15	Zapato			26	12	0.15	24	0.29				1.36					1.36
VENTILACION MECANICA VS-04	26.00	12.00	1.00	0.15	Zapato			26	12	0.15	24	0.29				1.36					1.36
VENTILACION MECANICA VS-04	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
VENTILACION MECANICA VS-04	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
VENTILACION MECANICA VS-04	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
VENTILACION MECANICA VS-04	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
VENTILACION MECANICA VS-04	14.00	10.00	1.00	0.15	Zapato			14	10	0.15	24	0.18				0.86					0.86
VENTILACION MECANICA VS-04	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
VENTILACION MECANICA VS-04	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
VENTILACION MECANICA VS-04	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
VENTILACION MECANICA VS-04	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
VENTILACION MECANICA VS-04	14.00	6.00	1.00	0.15	Zapato			14	6	0.15	24	0.15				0.71					0.71
VENTILACION MECANICA VS-04	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
VENTILACION MECANICA VS-04	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
VENTILACION MECANICA VS-04	26.00	12.00	1.00	0.15	Zapato			26	12	0.15	24	0.29				1.36					1.36
VENTILACION MECANICA VS-04	26.00	12.00	1.00	0.15	Zapato			26	12	0.15	24	0.29				1.36					1.36
VENTILACION MECANICA VS-04	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
VENTILACION MECANICA VS-05	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
VENTILACION MECANICA VS-05	16.00	6.00	1.00	0.81	Codo			16	6	0.81	24	0.91				4.26					4.26
VENTILACION MECANICA VS-05	18.00	8.00	1.00	0.91	Codo			18	8	0.91	24	1.21				5.66					5.66
VENTILACION MECANICA VS-05	18.00	8.00	1.00	0.91	Codo			18	8	0.91	24	1.21				5.66					5.66
VENTILACION MECANICA VS-05	14.00	6.00	1.00	0.71	Codo			14	6	0.71	24	0.72				3.39					3.39
VENTILACION MECANICA VS-05	24.00	12.00	1.00	1.22	Codo			24	12	1.22	24	2.23				10.46					10.46

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
VENTILACION MECANICA VS-05	18.00	32.00	1.00	0.91	Codo			18	32	0.91	22	2.32				13.05				13.05	
VENTILACION MECANICA VS-05	18.00	32.00	1.00	0.91	Codo			18	32	0.91	22	2.32				13.05				13.05	
VENTILACION MECANICA VS-05	22.00	14.00	1.00	0.30	Transicion			22	14	0.30	24	0.55				2.57					2.57
VENTILACION MECANICA VS-05	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
VENTILACION MECANICA VS-05	24.00	12.00	1.00	0.30	Transicion			24	12	0.30	24	0.55				2.57					2.57
VENTILACION MECANICA VS-05	28.00	14.00	1.00	0.30	Transicion			28	14	0.30	24	0.64				3.00					3.00
VENTILACION MECANICA VS-05	16.00	6.00	1.00	0.15	Zapato			16	6	0.15	24	0.17				0.79					0.79
VENTILACION MECANICA VS-05	14.00	14.00	1.00	0.15	Zapato			14	14	0.15	24	0.21				1.00					1.00
VENTILACION MECANICA VS-05	16.00	16.00	1.00	0.15	Zapato			16	16	0.15	24	0.24				1.14					1.14
VENTILACION MECANICA VS-05	16.00	16.00	1.00	0.15	Zapato			16	16	0.15	24	0.24				1.14					1.14
VENTILACION MECANICA VS-05	16.00	16.00	1.00	0.15	Zapato			16	16	0.15	24	0.24				1.14					1.14
VENTILACION MECANICA VS-05	12.00	12.00	1.00	0.15	Zapato			12	12	0.15	24	0.18				0.86					0.86
VENTILACION MECANICA VS-05	16.00	16.00	1.00	0.15	Zapato			16	16	0.15	24	0.24				1.14					1.14
VENTILACION MECANICA VS-05	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
VENTILACION MECANICA VS-05	22.00	14.00	1.00	0.15	Zapato			22	14	0.15	24	0.27				1.29					1.29
VENTILACION MECANICA VS-06	8.00	10.00	1.00	0.41	Codo			8	10	0.41	24	0.37				1.74					1.74
VENTILACION MECANICA VS-06	8.00	10.00	1.00	0.41	Codo			8	10	0.41	24	0.37				1.74					1.74
VENTILACION MECANICA VS-06	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
VENTILACION MECANICA VS-06	14.00	6.00	1.00	0.30	Transicion			14	6	0.30	24	0.30				1.43					1.43
VENTILACION MECANICA VS-06	10.00		1.00	0.30	Transicion redondo cuadrado			10		0.30	24	0.15				0.71					0.71
VENTILACION MECANICA VS-06	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
VENTILACION MECANICA VS-06	8.00	8.00	1.00	0.15	Zapato			8	8	0.15	24	0.12				0.57					0.57
VENTILACION MECANICA VS-06	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
VENTILACION MECANICA VS-06D	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
VENTILACION MECANICA VS-06D	4.00	10.00	1.00	0.20	Codo			4	10	0.20	24	0.14				0.68					0.68
VENTILACION MECANICA VS-06D	10.00	6.00	1.00	0.51	Codo			10	6	0.51	24	0.41				1.94					1.94
VENTILACION MECANICA VS-06D	6.00	10.00	1.00	0.30	Codo			6	10	0.30	24	0.25				1.16					1.16
VENTILACION MECANICA VS-06D	6.00	10.00	1.00	0.30	Codo			6	10	0.30	24	0.25				1.16					1.16
VENTILACION MECANICA VS-06D	6.00	10.00	1.00	0.30	Codo			6	10	0.30	24	0.25				1.16					1.16
VENTILACION MECANICA VS-06D	14.00	8.00	1.00	0.30	Transicion redondo cuadrado			14	8	0.30	24	0.34				1.57					1.57
VENTILACION MECANICA VS-07	32.00	18.00	1.00	1.63	Codo			32	18	1.63	22	4.13				23.21				23.21	
VENTILACION MECANICA VS-07	18.00	32.00	1.00	0.91	Codo			18	32	0.91	22	2.32				13.05				13.05	
VENTILACION MECANICA VS-07	10.00	4.00	1.00	0.51	Codo			10	4	0.51	24	0.36				1.69					1.69
VENTILACION MECANICA VS-07	32.00	18.00	1.00	0.30	Transicion			32	18	0.30	22	0.76				4.28				4.28	
VENTILACION MECANICA VS-07	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
VENTILACION MECANICA VS-07	10.00	6.00	1.00	0.30	Transicion			10	6	0.30	24	0.24				1.14					1.14
VENTILACION MECANICA VS-07	14.00	6.00	1.00	0.30	Transicion			14	6	0.30	24	0.30				1.43					1.43
VENTILACION MECANICA VS-07	16.00	14.00	1.00	0.30	Transicion			16	14	0.30	24	0.46				2.14					2.14
VENTILACION MECANICA VS-07	20.00	14.00	1.00	0.30	Transicion			20	14	0.30	24	0.52				2.43					2.43
VENTILACION MECANICA VS-07	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
VENTILACION MECANICA VS-07	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
VENTILACION MECANICA VS-07	12.00	12.00	1.00	0.15	Zapato			12	12	0.15	24	0.18				0.86					0.86
VENTILACION MECANICA VS-07	12.00	12.00	1.00	0.15	Zapato			12	12	0.15	24	0.18				0.86					0.86
VENTILACION MECANICA VS-07	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
VENTILACION MECANICA VS-07	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
VENTILACION MECANICA VS-07	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
VENTILACION MECANICA VS-07	10.00	4.00	1.00	0.15	Zapato			10	4	0.15	24	0.11				0.50					0.50
VENTILACION MECANICA VS-07	9.00	9.00	1.00	0.15	Zapato			9	9	0.15	24	0.14				0.64					0.64
VENTILACION MECANICA VS-07	14.00	14.00	1.00	0.15	Zapato			14	14	0.15	24	0.21				1.00					1.00
VENTILACION MECANICA VS-07	14.00	14.00	1.00	0.15	Zapato			14	14	0.15	24	0.21				1.00					1.00
VENTILACION MECANICA VS-07D	20.00	14.00	1.00	0.30	Transicion			20	14	0.30	24	0.52				2.43					2.43

	Incremento	25%	Neto
LAMINA EN METROS CUADRADOS (M2)			
Calibre 16	m2		

TABLA DE DATOS

DUCTO	MED. (P/M)		CANT.	LONG.	DESCRIPCION	<SA> I/E/F	<P> M/C	W	H	LONG. TOTAL	CAL	AREA M2	AISLAMIENTO	A. INTERNO M2	A. EXTERNO M2	KG	CALIBRE CAL 16	CAL 18	CAL 20	CAL 22	CAL 24
EQUIPO																					
Calibre 18	m2																				
Calibre 20	m2																				
Calibre 22	m2	199.7	159.8																		
Calibre 24	m2	3,702.0	2,961.6																		
LAMINA EN KILOGRAMOS (KG)																					
Calibre 16	kg																				
Calibre 18	kg																				
Calibre 20	kg																				
Calibre 22	kg	1,122.3	897.8																		
Calibre 24	kg	17,362.6	13,890.0																		
FIBRA DE VIDRIO (M2)																					
Fibra de vidrio	m2	0.0	0.0																		
AISL INTERNO	m2																				
AISL EXTERNO	m2	1,466.2	1,173.0																		
TOTALES LAMINA																					
TOTAL LAMINA	m2	3,901.7	3,121.4																		
TOTAL LAMINA	kg	18,484.8	14,787.9																		