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INGEMACH S.A
Proyectos Industriales & Arquitectónicos

Guayaquil, 31 de agosto del 2023
**SRES: UNIVERSIDAD DE LAS ARTES**

CT-000310823-02

**IMPLEMENTACIÓN ESTUDIO DE CÁLCULO Y REDISEÑO DE SISTEMA DE CLIMATIZACIÓN Y CONTROL DE HUMEDAD PARA EL EDIFICIO MZ 14 DE LA UNIVERSIDAD DE LAS ARTES**
**COTS -UA-004-2023**

**RUC** **0992727292001** **INGEMACH S.A**

Se entregará finalizado y en total funcionamiento la implementación de todos los rubros resultantes.

Se efectuarán las inspecciones de calibración semanales.

**CRONOGRAMA VALORADO**

| No. | CPC | Rubro | Unidad | Cantidad | Precio Unitario | Precio Total | TIEMPO EN DIAS | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 1-10 DIAS | 11-20 DIAS | 21-30 DIAS | 31-40 DIAS | 41-50 DIAS | 51-60 DIAS | 61-70 DIAS | 71-80 DIAS | 81-90 DIAS | 91-100 DIAS | 101-110 DIAS | 111-120 DIAS | 121-130 DIAS | 131-140 DIAS | 141-150 DIAS | 151-160 DIAS | 161-170 DIAS | 171-180 DIAS | 181-190 DIAS | 191-200 DIAS | 201-210 DIAS |
| 1 | 871100212 | Suministro, fabricación e instalación de Ductos de Tol Galvanizado aislados con lana de vidrio | KG | 1297,0572 | $ 5,57873 | $ 7.235,92958 | $657,81178 | $657,81178 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $657,81178 | $657,81178 | $657,81178 | $657,81178 | $657,81178 | $657,81178 | $657,81178 | $657,81178 | $657,81178 |
| 2 | 871100212 | Desinstalación de Ductos de Tol Galvanizado aislados con lana de vidrio | KG | 854,84896 | $ 1,21600 | $ 1.039,49263 | $519,74631 | $519,74631 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 3 | 871100212 | Instalación Difusor de aire de 4 vías de 8"x8" con Cdámner | U | 2 | $ 35,52378 | $ 71,04756 | $6,45887 | $6,45887 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $6,45887 | $6,45887 | $6,45887 | $6,45887 | $6,45887 | $6,45887 | $6,45887 | $6,45887 | $6,45887 |
| 4 | 871100212 | Instalación Difusor de aire de 4 vías de 10"x10" con dámner | U | 9 | $ 52,90973 | $ 476,18761 | $43,28978 | $43,28978 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $43,28978 | $43,28978 | $43,28978 | $43,28978 | $43,28978 | $43,28978 | $43,28978 | $43,28978 | $43,28978 |
| 5 | 871100212 | Instalación Difusor de aire de 4 vías de 10"x10" sin dámper | U | 4 | $ 24,23637 | $ 96,94549 | $8,81323 | $8,81323 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $8,81323 | $8,81323 | $8,81323 | $8,81323 | $8,81323 | $8,81323 | $8,81323 | $8,81323 | $8,81323 |
| 6 | 871100212 | Instalación Difusor de aire de 4 vías de 12"x12" con dámner | U | 15 | $ 66,70340 | $ 1.000,55094 | $90,95918 | $90,95918 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $90,95918 | $90,95918 | $90,95918 | $90,95918 | $90,95918 | $90,95918 | $90,95918 | $90,95918 | $90,95918 |
| 7 | 871100212 | Instalación Difusor de aire de 4 vías de 12"x12" sin dámner | U | 9 | $ 30,85473 | $ 277,69257 | $25,24478 | $25,24478 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $25,24478 | $25,24478 | $25,24478 | $25,24478 | $25,24478 | $25,24478 | $25,24478 | $25,24478 | $25,24478 |
| 8 | 871100212 | Instalación Rejilla Retorno de aire de 10´´x10´´ | U | 2 | $ 22,61195 | $ 45,22390 | $0,00000 | $0,00000 | $4,11126 | $4,11126 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $4,11126 | $4,11126 | $4,11126 | $4,11126 | $4,11126 | $4,11126 | $4,11126 | $4,11126 | $4,11126 |
| 9 | 871100212 | Instalación Retilla Retorno de aire de 10´´x10´´ | U | 1 | $ 67,18608 | $ 67,18608 | $0,00000 | $0,00000 | $6,10783 | $6,10783 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $6,10783 | $6,10783 | $6,10783 | $6,10783 | $6,10783 | $6,10783 | $6,10783 | $6,10783 | $6,10783 |
| 10 | 871100212 | Instalación Retilla Retorno de aire de 22´´x22´´ | U | 3 | $ 33,25887 | $ 99,77662 | $0,00000 | $0,00000 | $9,07060 | $9,07060 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $9,07060 | $9,07060 | $9,07060 | $9,07060 | $9,07060 | $9,07060 | $9,07060 | $9,07060 | $9,07060 |
| 11 | 871100212 | Instalación Rejilla Lineal 24"x4" | U | 8 | $ 55,05397 | $ 440,43177 | $0,00000 | $0,00000 | $40,03925 | $40,03925 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $40,03925 | $40,03925 | $40,03925 | $40,03925 | $40,03925 | $40,03925 | $40,03925 | $40,03925 | $40,03925 |
| 12 | 871100212 | Desinstalación Difusor/Rejilla | U | 55 | $ 4,77116 | $ 262,41372 | $0,00000 | $0,00000 | $131,20686 | $131,20686 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 13 | 871100212 | Ducto flexible aislado diámetro 6´´ | U | 15,2 | $ 7,86220 | $ 119,50545 | $0,00000 | $0,00000 | $59,75273 | $59,75273 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 14 | 871100212 | Ducto flexible aislado diámetro 8´´ | M | 50 | $ 8,71618 | $ 435,80913 | $0,00000 | $0,00000 | $217,90457 | $217,90457 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 15 | 871100212 | Ducto flexible aislado diámetro 10´´ | M | 60 | $ 10,42415 | $ 625,44876 | $0,00000 | $0,00000 | $312,72438 | $312,72438 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 16 | 871100212 | Split Ducto, capacidad: 60000 BTU/H, incluye evaporador y condensador, opera a 220 /1/60 | M | 1 | $ 3.119,20524 | $ 3.119,20524 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $1.559,60262 | $1.559,60262 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 17 | 871100212 | Tubería de cobre diámetro 7/8" | U | 6 | $ 19,45593 | $ 116,73558 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $58,36779 | $58,36779 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 18 | 871100212 | Tubería de cobre diámetro 3/8" | M | 6 | $ 8,85542 | $ 53,13251 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $26,56626 | $26,56626 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 19 | 871100212 | Aislamiento para tubería de cobre diámetro | M | 6 | $ 2,89611 | $ 17,37667 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $8,68834 | $8,68834 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 20 | 871100212 | Instalación y programación de sistema de control para unidad manejadora de aire | M | 8 | $ 3.767,99927 | $ 30.143,99412 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $15.071,99706 | $15.071,99706 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 21 | 871100212 | Termostato modulante para fancoil agua helada | U | 8 | $ 855,54095 | $ 6.844,32757 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $3.422,16379 | $3.422,16379 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 22 | 871100212 | Caja de Volumen Variable L-CVAV-8, incluye aislamiento, damper, actuador, termostato, control BACNET, opera a 110/1/60 | U | 7 | $ 1.303,43596 | $ 9.124,05174 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $4.562,02587 | $4.562,02587 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 23 | 871100212 | Caja de Volumen Variable L-CVAV-10, incluye aislamiento, damper, actuador, termostato, control BACNET, opera a 110/1/60 | U | 19 | $ 1.331,84942 | $ 25.305,13895 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $12.652,56948 | $12.652,56948 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 24 | 871100212 | Caja de Volumen Variable L-CVAV-12, incluye aislamiento, damper, actuador, termostato, | U | 6 | $ 1.416,56069 | $ 8.499,36413 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $4.249,68207 | $4.249,68207 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 25 | 871100212 | Caja de Volumen Variable L-CVAV-14, incluye aislamiento, damper, actuador, termostato, | U | 2 | $ 1.453,55109 | $ 2.907,10218 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $1.453,55109 | $1.453,55109 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 26 | 871100212 | Caja de Volumen Variable L-CVAV-16, incluye aislamiento, damper, actuador, termostato, control BACNET, opera a 110/1/60 | U | 2 | $ 1.495,30337 | $ 2.990,60674 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $1.495,30337 | $1.495,30337 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 27 | 871100212 | Cable 4x16 para conexión de termostatos | M | 300 | $ 2,90539 | $ 871,61827 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $435,80913 | $435,80913 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 28 | 871100212 | Cable 3x14 para punto eléctrico cajas VAV | M | 100 | $ 3,62014 | $ 362,01398 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $181,00699 | $181,00699 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 29 | 871100212 | Tapada de hueco de 24"x16" con drywsum | U | 10 | $ 32,61839 | $ 326,18387 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $163,09194 | $163,09194 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 30 | 871100212 | Tapada de hueco de 250 cm x 70 cm con gypsum | U | 1 | $ 131,03049 | $ 131,03049 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $65,51525 | $65,51525 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 31 | 871100212 | Boquete en pared de bloque 24"x10" | U | 4 | $ 65,11610 | $ 260,46441 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $130,23221 | $130,23221 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 32 | 871100212 | Puerta de aluminio de 65 cm x 240 cm | U | 1 | $ 207,61966 | $ 207,61966 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $103,80983 | $103,80983 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 33 | 871100212 | Sellado de junta de vidrio en mampara | U | 1 | $ 71,10326 | $ 71,10326 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $35,55163 | $35,55163 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 34 | 871100212 | Tapada de hueco de 24"x26" con gypsum | U | 2 | $ 123,50246 | $ 247,00492 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $123,50246 | $123,50246 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 35 | 871100212 | Tapada de hueco de 70 cm x 70 cm en puerta con panel de aluminio compuesto | U | 2 | $ 40,18355 | $ 80,36710 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $40,18355 | $40,18355 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 36 | 871100212 | Resanar tumbado en area acustica 100 cm x 100 cm | U | 19 | $ 149,17761 | $ 2.834,37450 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $1.417,18725 | $1.417,18725 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 37 | 871100212 | Desmontaje de tumbado decorativo | U | 1 | $ 85,47243 | $ 85,47243 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $42,73621 | $42,73621 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 38 | 871100212 | Sellar vidrio 210 cm x 70 cm | U | 18 | $ 27,09535 | $ 487,71637 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $243,85818 | $243,85818 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 39 | 871100212 | Mantenimiento integral de UMA | U | 12 | $ 301,91037 | $ 3.622,92449 | $329,35677 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $329,35677 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $329,35677 | $329,35677 | $329,35677 | $329,35677 | $329,35677 | $329,35677 | $329,35677 | $329,35677 | $329,35677 |
| 40 | 871100212 | Mantenimiento integral de Fancoil | U | 4 | $ 208,10605 | $ 832,42422 | $75,67493 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $75,67493 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $75,67493 | $75,67493 | $75,67493 | $75,67493 | $75,67493 | $75,67493 | $75,67493 | $75,67493 | $75,67493 |
| 41 | 871100212 | Cambio de ventilador centrífugo en UMA | U | 1 | $ 1.592,02608 | $ 1.592,02608 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $796,01304 | $796,01304 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 42 | 871100212 | Suministro y colocación de pintura en drywsum | M2 | 417,4 | $ 4,73403 | $ 1.975,98367 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $987,99184 | $987,99184 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| 43 | 871100212 | Resanar tumbado en area normal 100 cm x 100 | U | 14 | $ 113,35679 | $ 1.586,99501 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $793,49751 | $793,49751 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 | $0,00000 |
| **SUBTOTAL** | | | | | | **$ 116.990,00000** | | | | | | | | | | | | | | | | | | | | | |
| **INVERSION PARCIAL $** | | | | | | | $1.757,35563 | $1.352,32393 | $780,91748 | $780,91748 | $37.361,98120 | $37.361,98120 | $8.579,22374 | $8.174,19204 | $2.006,82912 | $2.006,82912 | $2.577,50238 | $2.577,50238 | $1.296,93826 | $1.296,93826 | $1.296,93826 | $1.296,93826 | $1.296,93826 | $1.296,93826 | $1.296,93826 | $1.296,93826 | $1.296,93826 |
| **INVERSION PARCIAL %** | | | | | | | 2% | 1% | 1% | 1% | 32% | 32% | 7% | 7% | 2% | 2% | 2% | 2% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% |
| **INVERSION TOTAL $** | | | | | | | $1.757,35563 | $3.109,67955 | $3.890,59703 | $4.671,51451 | $42.033,49571 | $79.395,47691 | $87.974,70065 | $96.148,89269 | $98.155,72181 | $100.162,55093 | $102.740,05331 | $105.317,55569 | $106.614,49395 | $107.911,43220 | $109.208,37046 | $110.505,30872 | $111.802,24697 | $113.099,18523 | $114.396,12349 | $115.693,06174 | $116.990,00000 |
| **INVERION TOTAL %** | | | | | | | 2% | 3% | 3% | 4% | 36% | 68% | 75% | 82% | 84% | 86% | 88% | 90% | 91% | 92% | 93% | 94% | 96% | 97% | 98% | 99% | 100% |

**ATENTAMENTE,**

Firmado electrónicamente por:
**ANDRES EDUARDO BAQUE CALLE**

**ANDRÉS EDUARDO BAQUE CALLE**
**GERENTE GENERAL**
**INGEMACH S.A**