



# CT SYSTEMS CC

Electrical & Material Handling Engineering

REG. NO. CK/1986/006898/23

VAT NUMBER 4200113712

SABS ISO 9001 No. LS 1758

<b>Company :</b>	DRA		
<b>Attention:</b>	Graham	<b>Date:</b>	01/11/2023
<b>Email:</b>	graham.audouin@draglobal.com	<b>Our Ref:</b>	SP DRA-01-KM TZN-02/ 2023
<b>From:</b>	SADIA PATAO	<b>Your Ref:</b>	RFQ
<b>Subject:</b>	<b>Kabanga</b>		

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We thank you for your enquiry and have a pleasure in submitting this proposal.

Should you require further clarification please contact the undersigned.

These are prices for hardware only I will send you a quotation for FAT ,installation &commission next week by the 07/11/2023.

**Delivery : FOB Benoni**

**Yours Faithfully**

Sadia Patao

Members: A. Steenkamp, A Lavis, R.J.F. Pinto  
CT SYSTEMS CC  
43/45 Lake Avenue  
Benoni  
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## **TECHNICAL SPECIFICATIONS**

### **Executive Summary**

As per conversation we have included the worse case scenario regarding the Belt Protection equipment only .

I will next week send prices for the FAT drawings , installation, and commissioning. We have very little information therefore we assumed that the conveyors will be accessible on both sides.

This offer is for the supply and delivery of all the conveyor protection systems for the project as identified on your emailed documents referring to the conveyor lengths.

This offer has been compiled with certain assumptions and exclusions, and we have documented most of these below.

Please do not hesitate to contact the undersigned for clarity on any portion of our quote.

Delivery will be FOB Benoni.

- Training: Our standard training rates are R15800.00 per day, for a classroom of no more than 10 attendees, this excludes any traveling time, travelling costs and Sustenance Allowance We will require 3 weeks in advance for training so that we can prepare training documentation.
- We have made no provisions for Installation or commissioning.

### **1.1.1 Engineering Services**

- These prices do not included any engineering services at all.

### **1.1.2 Preliminary and General**

- ❖ **Not Quoted for, will quote if site establishment is a requirement.  
This will be provided in the new quote next week.**

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## 1.2 Installation

We have **excluded** an estimate for the installation of the equipment supplied.  
We will issue a quote next week for this.

## 2. Exclusions

We have **not included** for the following:

### 2.1 **Scaffolding (This is to be erected and supplied by others)**

- 2.2 Any other goods/services not indicated in the price schedule/bill of quantities.
- 2.3 Supply and installation of any Medium and High Voltage Switchgear, Cabling and Distribution.
- 2.4 Supply and installation of any Motors, Drive Units, Smart Relays, Elec Relays etc. .
- 2.5 Supply and installation of any Control Room Equipment other than that indicated in the price schedule/bill of quantities.
- 2.6 Vendor specific PLC/SCADA software development licenses.
- 2.7 Fibre-Optic Cabling, Splicing and Termination related to the Control Network Industrial Ethernet Backbone.
- 2.8 Any UPS or standby power supply.
- 2.9 Any type of wire marker requirement other than that specified.
- 2.10 Any earthing.
- 2.11 Any additional work will require an amendment order.
- 2.12 Trenching machine with operator (Excluded from scope due site specifications)
- 2.13 Cabling from Substation to Head End Control Unit and from Trip Circuit to Safety Circuit has been excluded as we did not have indication on distances between the Hecu and sub-station.
- 2.14 Cable markers has been excluded from our proposal.
- 2.15 Cable trays and cable bridges has been excluded from our proposal as installation did not fall part of our scope and we had no reference drawings to utilize to estimate the route of the cable trays and distances.
- 2.16 Site Specific motor vehicles or for site approved personnel carriers such as site approved busses.
- 2.17 Site establishment containers, offices, and storage containers.

## 3. Assumptions

**We assumed that everything will be intelligent. And access on both sides of the conveyor.**

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If possible, please clarify what you prefer on the Apron feeder? We have some end users that want it fully intelligent and some that will only use a conveyor trip switch taken to a Rio Panel.

Should you have more information available regarding the conveyors we will welcome it if you send us this information.

## Quality Statement

CT SYSTEMS CC is committed to quality. Its Quality Management System is designed to meet SABS ISO 9001:2015 (E) "Code of Practice".

## 6. Trade Secret

This proposal contains confidential information and trade secrets of CT SYSTEMS CC's. The information contained herein shall be used solely for the evaluation of the proposal by the Purchasing Team and its consultants and shall not be disclosed to third parties or indiscriminately distributed without CT SYSTEMS CC's prior written permission.

**We strive to give you the best service.**

**Your Faithfully**

**Sadia Patao**

**External sales Client Liaison and contracts Manager**

**072 914 2707**

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Apron dribble feeder Acces both sides		CONVEYOR LENGTH (m)		11m
Item	Description	QTY	Per unit	Total
1	HEAD END CONTROL UNIT - (HECU) TYPE: CTS MK8-2 ). c/w data logger board, Profinet comms.	1	R 74 529.00	R74 529.00
2	1.5m Free Standing Support Mounting Structure for HECU	1	R 5 177.00	R5 177.00
3	Belt PROTECTION UNIT TYPE CTS 9480 SRBL STROKING ROLLER BELT MISALIGNMENT ON AT HEAD AND ON AT TAIL( set left and right)	0	R 4 025.00	R0.00
4	BELT PROTECTION UNIT TYPE CTS748 BS underspeed /slip detector SS	1	R 23 850.00	R23 850.00
5	BELT PROTECTION UNIT TYPE CTS748BS speed sequence unit SS	1	R 23 717.00	R23 717.00
6	BELT PROTECTION UNIT TYPE 748MRD Mechanical Rip Detector (Deadpan) SS	0	R 27 350.00	R0.00
7	BLOCKED CHUTE DETECTOR TYPE CTS 600 BCD Complete with primary device (CTS 448PD)	0	R 15 732.20	R0.00
8	BELT PROTECTION UNIT TYPE CTS 448 PD with takeup/trolley limit switches fwd /ffwd &reverse /rereverse	4	R 14 302.90	R57 211.60
9	CTS348 Beltguards Head and Tail C/W 2 industrial Plugs SS	2	R 13 382.70	R26 765.40
10	CTS 1000 AVA Audio visual Alram ( Stand Alone) SS	1	R 15 575.00	R15 575.00
11	CTS 348PSW/DC C/W Lightning protection Conveyor trip switch space 50m apart SS	4	R 12 090.00	R48 360.00
12	INTELLIGENT END UNIT TYPE: CTS IEU 48VDC - SS	1	R 4 890.00	R4 890.00
13	PULL CABLE. TYPE: CTS PC. To interlink between the HECU, to all of the equipment mounted on the conveyor, the pull cable acts also as the pulling mechanism per metre	26	R 71.00	R1 846.00
14	TERMINATION KITS FOR PULL CABLE. TYPE: CTS TK SS	8	R 395.00	R3 160.00
15	CTS CGR - Conveyor Guide Roller (Corner Wheels for Belt Guards) SS	4	R 1 100.00	R4 400.00
16	PULL CABLE CARRIERS. TYPE: CTS PCC SS	8	R 85.00	R680.00
17	Export Crating	3	R 3 800.00	
SUB TOTAL				R290 161.00
VAT				R43 524.15
TOTAL				R333 685.15



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Sacrificial Conveyor Access both sides		CONVEYOR LENGTH (m)		S6
Item	Description	QTY	Per unit	Total
1	HEAD END CONTROL UNIT - (HECU) TYPE: CTS MK8-2 ). c/w data logger board, Profinet comms.	1	R 74 529.00	R74 529.00
2	1.5m Free Standing Support Mounting Structure for HECU	1	R 5 177.00	R5 177.00
3	Belt PROTECTION UNIT TYPE CTS 9480 SRBL STROKING ROLLER BELT MISALIGNMENT ON AT HEAD AND ON AT TAIL( set left and right) SS	2	R 4 025.00	R8 050.00
4	BELT PROTECTION UNIT TYPE CTS748 BS underspeed /slip detector SS	1	R 23 850.00	R23 850.00
5	BELT PROTECTION UNIT TYPE CTS748BSS speed sequence unit SS	1	R 23 717.00	R23 717.00
6	BELT PROTECTION UNIT TYPE 748MRD Mechanical Rip Detector (Deadpan) SS	1	R 27 350.00	R27 350.00
7	BLOCKED CHUTE DETECTOR TYPE CTS 600 BCD Complete with primary device (CTS 448PD)	1	R 15 732.20	R15 732.20
8	BELT PROTECTION UNIT TYPE CTS 448 PD with takeup/trolley limit switches fwd /ffwd &reverse /rereverse	4	R 14 302.90	R57 211.60
9	CTS348 Beltguards Head and Tail C/W 2 Industrial Plugs SS	4	R 13 382.70	R53 530.80
10	CTS 1000 AVA Audio visual Alram ( Stand Alone) SS	1	R 15 575.00	R15 575.00
11	CTS 348PSW/DC C/W Lightning protection Conveyor trip switch space 50m apart SS	4	R 12 090.00	R48 360.00
12	INTELLIGENT END UNIT TYPE: CTS IEU 48VDC - SS	1	R 4 890.00	R4 890.00
13	PULL CABLE. TYPE: CTS PC. To interlink between the HECU, to all of the equipment mounted on the conveyor, the pull cable acts also as the pulling mechanism per metre	150	R 71.00	R10 650.00
14	TERMINATION KITS FOR PULL CABLE. TYPE: CTS TK SS	8	R 395.00	R3 160.00
15	CTS CGR - Conveyor Guide Roller (Corner Wheels for Belt Guards) SS	4	R 1 100.00	R4 400.00
16	PULL CABLE CARRIERS. TYPE: CTS PCC SS	38	R 85.00	R3 230.00
17	Export Crating	3	R 3 800.00	R11 400.00
SUB TOTAL				R390 812.60
VAT				R58 621.89
TOTAL				R449 434.49



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Mill feed Conveyor Access Both sides		CONVEYOR LENGTH (m)		90m
Item	Description	QTY	Per unit	Total
1	HEAD END CONTROL UNIT - (HECU) TYPE: CTS MK8-2 ). c/w data logger board, Profinet comms.	1	R 74 529.00	R74 529.00
2	1.5m Free Standing Support Mounting Structure for HECU	1	R 5 177.00	R5 177.00
3	Belt PROTECTION UNIT TYPE CTS 9480 SRBL STROKING ROLLER BELT MISALIGNMENT ON AT HEAD AND ON AT TAIL( set left and right)	2	R 4 025.00	R8 050.00
4	BELT PROTECTION UNIT TYPE CTS748 BS underspeed /slip detector SS	1	R 23 850.00	R23 850.00
5	BELT PROTECTION UNIT TYPE CTS748BS speed sequence unit SS	1	R 23 717.00	R23 717.00
6	BELT PROTECTION UNIT TYPE 748MRD Mechanical Rip Detector (Deadpan) SS	1	R 27 350.00	R27 350.00
7	BLOCKED CHUTE DETECTOR TYPE CTS 600 BCD Complete with primary device (CTS 448PD)	1	R 15 732.20	R15 732.20
8	BELT PROTECTION UNIT TYPE CTS 448 PD with takeup/trolley limit switches fwd /ffwd &reverse /rereverse	4	R 14 302.90	R57 211.60
9	CTS348 Beltguards Head and Tail C/W 2 industrial Plugs SS	4	R 13 382.70	R53 530.80
10	CTS 1000 AVA Audio visual Alarm ( Stand Alone) SS	1	R 15 575.00	R15 575.00
11	CTS 348PSW/DC C/W Lightning protection Conveyor trip switch space 50m apart SS	6	R 12 090.00	R72 540.00
12	INTELLIGENT END UNIT TYPE: CTS IEU 48VDC - SS	1	R 4 890.00	R4 890.00
13	PULL CABLE. TYPE: CTS PC. To interlink between the HECU, to all of the equipment mounted on the conveyor, the pull cable acts also as the pulling mechanism per metre	250	R 71.00	R17 750.00
14	TERMINATION KITS FOR PULL CABLE. TYPE: CTS TK SS	6	R 395.00	R2 370.00
15	CTS CGR - Conveyor Guide Roller (Corner Wheels for Belt Guards) SS	4	R 1 100.00	R4 400.00
16	PULL CABLE CARRIERS. TYPE: CTS PCC SS	60	R 85.00	R5 100.00
17	Export Crating	4	R 3 800.00	R15 200.00
SUB TOTAL				R426 972.60
VAT				R64 045.89
TOTAL				R491 018.49



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<b>Sizing Screen Feed Conveyor</b>		<b>CONVEYOR LENGTH (m)</b>		<b>132</b>
Item	Description	QTY	Per unit	Total
1	HEAD END CONTROL UNIT - (HECU) TYPE: CTS MK8-2 ). c/w data logger board, Profinet comms.	1	R 74 529.00	R74 529.00
2	1.5m Free Standing Support Mounting Structure for HECU	1	R 5 177.00	R5 177.00
3	Belt PROTECTION UNIT TYPE CTS 9480 SRBL STROKING ROLLER BELT MISALIGNMENT ON AT HEAD AND ON AT TAIL( set left and right)	2	R 4 025.00	R8 050.00
4	BELT PROTECTION UNIT TYPE CTS748 BS underspeed /slip detector SS	1	R 23 850.00	R23 850.00
5	BELT PROTECTION UNIT TYPE CTS748BSS speed sequence unit SS	1	R 23 717.00	R23 717.00
6	BELT PROTECTION UNIT TYPE 748MRD Mechanical Rip Detector (Deadpan) SS	1	R 27 350.00	R27 350.00
7	BLOCKED CHUTE DETECTOR TYPE CTS 600 BCD Complete with primary device (CTS 448PD)	1	R 15 732.20	R15 732.20
8	BELT PROTECTION UNIT TYPE CTS 448 PD with takeup/trolley limit switches fwd /ffwd &reverse /rereverse	4	R 14 302.90	R57 211.60
9	CTS348 Beltguards Head and Tail C/W 2 industrial Plugs SS	4	R 13 382.70	R53 530.80
10	CTS 1000 AVA Audio visual Alram ( Stand Alone) SS	1	R 15 575.00	R15 575.00
11	CTS 348PSW/DC C/W Lightning protection Conveyor trip switch space 50m apart SS	8	R 12 090.00	R96 720.00
12	INTELLIGENT END UNIT TYPE: CTS IEU 48VDC - SS	1	R 4 890.00	R4 890.00
13	PULL CABLE. TYPE: CTS PC. To interlink between the HECU, to all of the equipment mounted on the conveyor, the pull cable acts also as th	300	R 71.00	R21 300.00
14	TERMINATION KITS FOR PULL CABLE. TYPE: CTS TK SS	8	R 395.00	R3 160.00
15	CTS CGR - Conveyor Guide Roller (Corner Wheels for Belt Guards) SS	4	R 1 100.00	R4 400.00
16	PULL CABLE CARRIERS. TYPE: CTS PCC SS	88	R 85.00	R7 480.00
17	Export Crating	4	R 3 800.00	R15 200.00
SUB TOTAL				R457 872.60
VAT				R68 680.89
TOTAL				R526 553.49





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Secondary Crusher Feed Conveyor		CONVEYOR LENGTH (m)		169m
Item	Description	QTY	Per unit	Total
1	HEAD END CONTROL UNIT - (HECU) TYPE: CTS MK8-2 ). c/w data logger board, Profinet comms.	1	R 74 529.00	R74 529.00
2	1.5m Free Standing Support Mounting Structure for HECU	1	R 5 177.00	R5 177.00
3	Belt PROTECTION UNIT TYPE CTS 9480 SRBL STROKING ROLLER BELT MISALIGNMENT ON AT HEAD AND ON AT TAIL( set left and right) SS	2	R 4 025.00	R8 050.00
4	BELT PROTECTION UNIT TYPE CTS748 BS underspeed /slip detector SS	1	R 23 850.00	R23 850.00
5	BELT PROTECTION UNIT TYPE CTS748BSS speed sequence unit SS	1	R 23 717.00	R23 717.00
6	BELT PROTECTION UNIT TYPE 748MRD Mechanical Rip Detector (Deadpan) SS	1	R 27 350.00	R27 350.00
7	BLOCKED CHUTE DETECTOR TYPE CTS 600 BCD Complete with primary device (CTS 448PD)	1	R 15 732.20	R15 732.20
8	BELT PROTECTION UNIT TYPE CTS 448 PD with takeup/trolley limit switches fwd /ffwd &reverse /rereverse	4	R 14 302.90	R57 211.60
9	CTS348 Beltguards Head and Tail C/W 2 industrial Plugs SS	4	R 13 382.70	R53 530.80
10	CTS 1000 AVA Audio visual Alram ( Stand Alone) SS	1	R 15 575.00	R15 575.00
11	CTS 348PSW/DC C/W Lightning protection Conveyor trip switch space 50m apart SS	10	R 12 090.00	R120 900.00
12	INTELLIGENT END UNIT TYPE: CTS IEU 48VDC - SS	1	R 4 890.00	R4 890.00
13	PULL CABLE. TYPE: CTS PC. To interlink between the HECU, to all of the equipment mounted on the conveyor, the pull cable acts also as the pulling mechanism per metre	420	R 71.00	R29 820.00
14	TERMINATION KITS FOR PULL CABLE. TYPE: CTS TK SS	10	R 395.00	R3 950.00
15	CTS CGR - Conveyor Guide Roller (Corner Wheels for Belt Guards) SS	4	R 1 100.00	R4 400.00
16	PULL CABLE CARRIERS. TYPE: CTS PCC SS	112	R 85.00	R9 520.00
17	Export Crating	4	R 3 800.00	R15 200.00
SUB TOTAL				R493 402.60
VAT				R74 010.39
TOTAL				R567 412.99



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Summary		CONVEYOR LENGTH (m)		
Item	Description	QTY	Per unit	Total
1	HEAD END CONTROL UNIT - (HECU) TYPE: CTS MK8-2 ). c/w data logger board, Profinet comms.	5	R 74 529.00	R372 645.00
2	1.5m Free Standing Support Mounting Structure for HECU	5	R 5 177.00	R25 885.00
3	Belt PROTECTION UNIT TYPE CTS 9480 SRBL STROKING ROLLER BELT MISALIGNMENT ON AT HEAD AND ON AT TAIL( set left and right) SS	8	R 4 025.00	R32 200.00
4	BELT PROTECTION UNIT TYPE CTS748 BS underspeed /slip detector SS	5	R 23 850.00	R119 250.00
5	BELT PROTECTION UNIT TYPE CTS748BSS speed sequence unit SS	5	R 23 717.00	R118 585.00
6	BELT PROTECTION UNIT TYPE 748MRD Mechanical Rip Detector (Deadpan) SS	4	R 27 350.00	R109 400.00
7	BLOCKED CHUTE DETECTOR TYPE CTS 600 BCD Complete with primary device (CTS 448PD)	4	R 15 732.20	R62 928.80
8	BELT PROTECTION UNIT TYPE CTS 448 PD with takeup/trolley limit switches fwd /ffwd &reverse /rereverse	20	R 14 302.90	R286 058.00
9	CTS348 Beltguards Head and Tail C/W 2 industrial Plugs SS	18	R 13 382.70	R240 888.60
10	CTS 1000 AVA Audio visual Alram ( Stand Alone) SS	5	R 15 575.00	R77 875.00
11	CTS 348PSW/DC C/W Lightning protection Conveyor trip switch space 50m apart SS	32	R 12 090.00	R386 880.00
12	INTELLIGENT END UNIT TYPE: CTS IEU 48VDC - SS	5	R 4 890.00	R24 450.00
13	PULL CABLE. TYPE: CTS PC. To interlink between the HECU, to all of the equipment mounted on the conveyor, the pull cable acts also as the pulling mechanism per metre	1146	R 71.00	R81 366.00
14	TERMINATION KITS FOR PULL CABLE. TYPE: CTS TK SS	40	R 395.00	R15 800.00
15	CTS CGR - Conveyor Guide Roller (Corner Wheels for Belt Guards) SS	20	R 1 100.00	R22 000.00
16	PULL CABLE CARRIERS. TYPE: CTS PCC SS	306	R 85.00	R26 010.00
17	Export Crating	18	R 3 800.00	R68 400.00
SUB TOTAL				R2 070 621.40
VAT				R310 593.21
TOTAL				R2 381 214.61