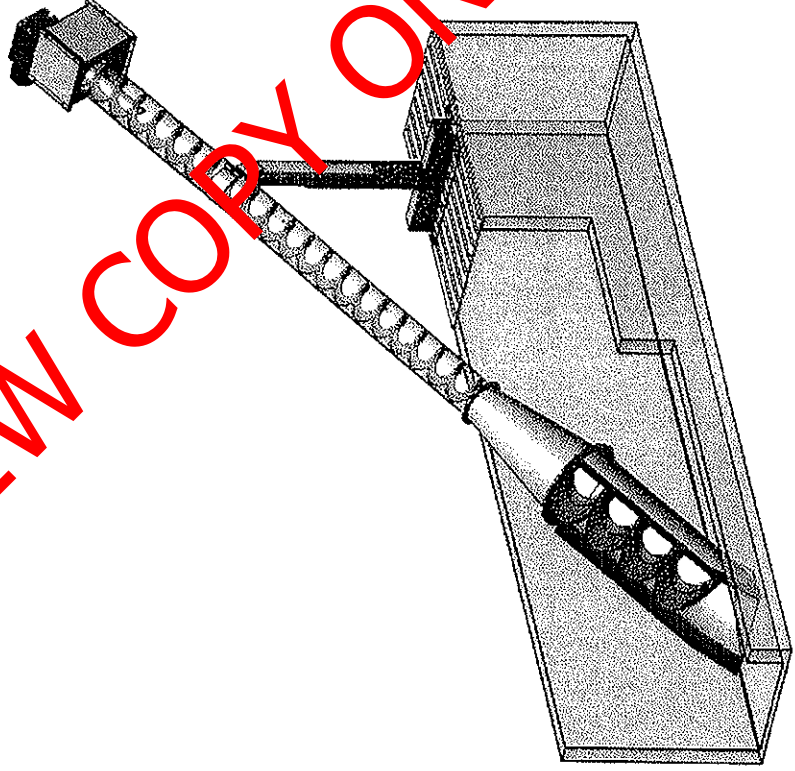


Annexure B

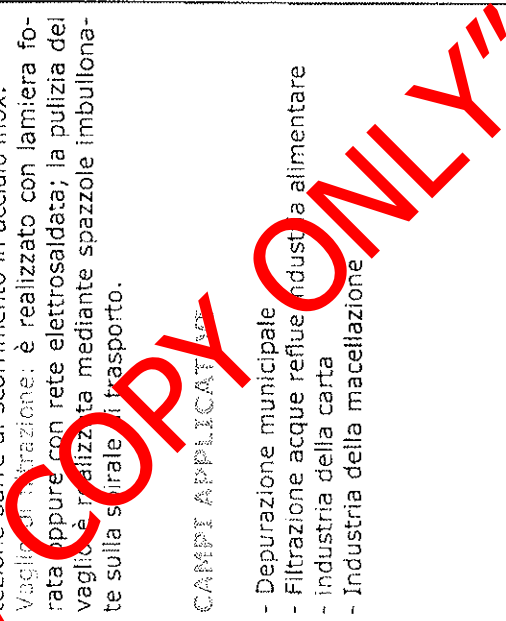
CF: IN CHANNEL SCREW SCREEN  
CF: COCLEA FILTRANTE

PREVIEW COPY ONLY



FILTRATION  
FILTRAZIONE

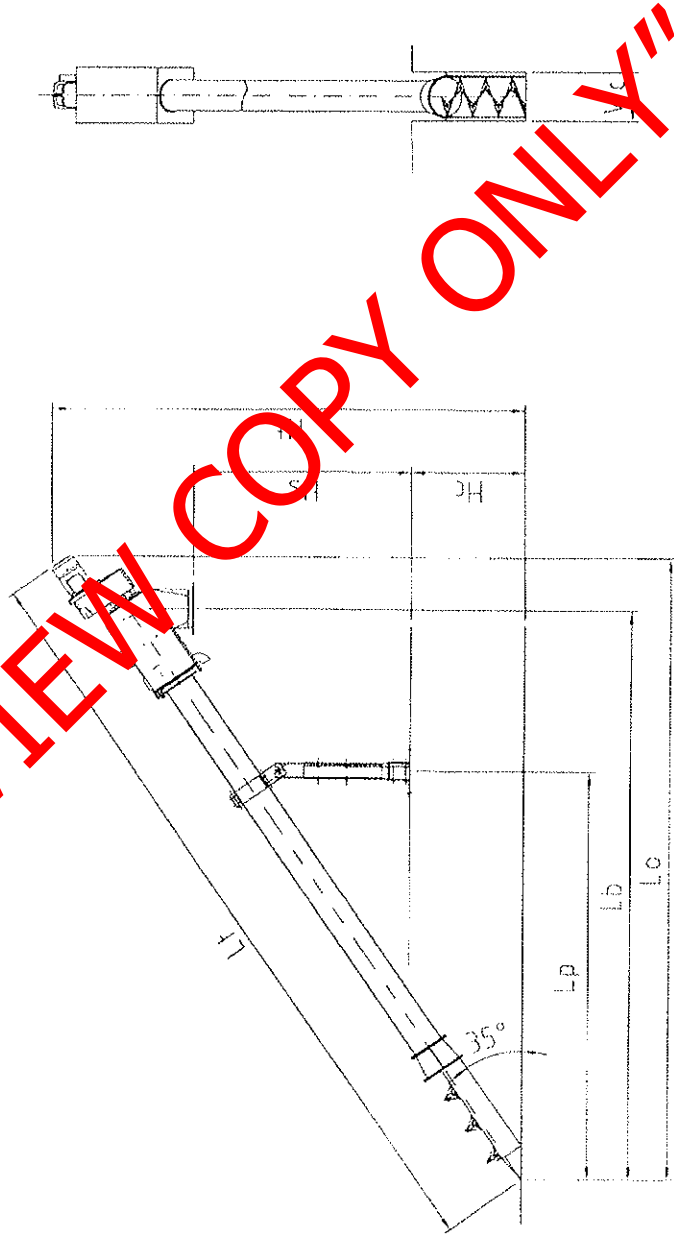
<p><b>MANIFATTURA PRINCIPALE</b></p>	<p><b>PROTEZIONE E FORNIZIONE DI USI</b></p>
<p>CF screw screens are used for solid-liquid separation. They feature a screen basket, perforated sheet or wedge wire, that act as a filter, followed by the transport section and a discharge spout that can be provided with a chute or a bagging system. Screenings are conveyed by a shaftless screw, provided in the screen basket section with bolted plastic brushes to keep the basket clean. The machine is usually placed inside a channel of suitable width</p> <p><b>MANUFACTURING FEATURES</b></p> <p>Screw: high strength carbon steel or stainless steel AISI 304 / 316            Structure: stainless steel AISI 304 / 316            Length: the total length may be varied to meet the plant lay-out specifications            Trough Protection: bolted stainless steel wedging bars            Screen Basket: perforated sheet or wedge wire            Screen Basket Cleaning: bolted brushes</p> <p><b>FIELDS OF APPLICATION</b></p> <ul style="list-style-type: none"> <li>- Municipal wastewater for sludges and grindings</li> <li>- Papermill</li> <li>- Food Industry</li> <li>- Slaughterhouses</li> <li>- Industrial plants</li> </ul>	<p>Sono macchine utilizzate per la separazione solido/liquido.</p> <p>Sono costituite da una zona filtrante (vaglio), con spaziatura 0,25 mm - 8 mm (e superiori a seconda dell'applicazione), che trattiene il solido, seguite dalla zona di trasporto, costituita da una coclea con spirale senza albero, che termina con una zona di scarico.</p> <p>La spirale della coclea è di norma collegata direttamente al motoriduttore tramite albero flangiatto.</p> <p>La macchina può essere posta all'interno di un canale in cemento, oppure può essere fornita all'interno di una vasca, per ricevere il liquido da una tubazione fissa.</p> <p><b>CARATTERISTICHE COSTRUTTIVE</b></p> <p>Spirale: realizzata in acciaio al carbonio ad alta resistenza o in AISI 304/AISI 316 a seconda dell'applicazione            Struttura: realizzata in acciaio inox Aisi 304 oppure 316 a seconda delle esigenze. La zona di trasporto è di tipo tubolare, e utilizza come protezione barre di scorrimento in acciaio inox.            Vaglio di filtrazione: è realizzato con lamiera forata oppure con rete elettrosaldata; la pulizia del vaglio è realizzata mediante spazzole imbullonate sulla spirale di trasporto.</p> <p><b>CAMPI APPLICATIVI</b></p> <ul style="list-style-type: none"> <li>- Depurazione municipale</li> <li>- Filtrazione acque reflue industriali alimentari</li> <li>- Industria della carta</li> <li>- Industria della macellazione</li> </ul>



# Annexure B

## STANDARD MODELS

THEORETICAL FLOW RATES							
CF TYPE	20	30	40	50	60	70	
SCREEN BASKET							
	m <sup>3</sup> /h						
0,25 mm	20	35	55	120	200	290	
0,5 mm	45	60	85	190	275	370	
1 mm	75	90	120	265	360	530	
2 mm	85	105	150	310	415	670	
3 mm	100	125	180	320	465	740	
5 mm	140	162	268	396	590	950	
6 mm	160	198	300	435	600	980	
8 mm	180	220	350	480	650	1000	



Model	Lt	Ht	Lo	Hs	Lb	Hc	Lp	Wc
CF 200	5360	2990	4500	1500	3970	800	2685	250
CF 300	5355	3340	4500	1500	4000	800	2870	350
CF 400	5410	3325	4350	1520	3990	800	2870	460
CF 500	5420	3330	4365	1525	3990	800	2875	560
CF 600	5825	3740	4635	1550	4220	800	3360	660
CF 700	6165	3940	4900	1550	4480	1000	3440	860

# Annexure B

## Specification: In-channel auger screen for PTI WWRTP

Proposals are invited for the supply and installation of a complete in-channel mechanical wastewater screening installation (in-channel auger screen extractor) as part of the proposed Wastewater Treatment and Recovery Plant (WWRTP) for the Pre-trip Inspection Facility (PTI) in the Port of Cape Town, South Africa. The WWRTP installation will treat wastewater generated from the cleaning and sanitation of Refrigerated Containers (Reefer) at the Facility for reclamation and reuse.

An in-channel auger screen will be provided for screening of large solids, rags and other debris from the recovered wash water prior to downstream biological treatment. The in-channel screen will be installed in the outflow section of the Grit Separator which forms part of the Primary Treatment for PTI Reefer wastewater treatment and recovery plant. The mechanical screen must be able to transport and conveying separated materials to a screenings bin for disposal.

The in-channel auger screen shall be a CF 400 in-channel screw screen (Industrial Screening Technology) in 304 stainless steel or an equivalent rated model

1. The screen shall be provided with 36 stainless steel wedgewire screen face of 1mm aperture (mesh size).
2. The screen shall be rated for a throughput flow of 90 m<sup>3</sup>/hr at full screen face submergence.

3. The in-channel screen shall be installed in the outflow channel section of the Primary Treatment Labyrinth Grit Separator, Reference B-DE-0003-01 Rev 1 attached

- a. The depth of the discharge channel from the bench level to ground level is 1620 mm (invert)
  - b. The width of the channel section is approximately 600 mm – exact dimension to be confirmed with the site engineer
  - c. The screen shall convey and discharge separated material to a height of approximately 650 mm above ground level to a screenings bin
  - d. Dewatering shall be by gravity only.
4. The in-channel screen unit shall be provided complete with all ancillaries required for automated operation - including but not limited to
    - a. Brush drive motor and gearbox
    - b. Level switches and associated drive controls for auto level actuation of the brush motor
    - c. A suitable IP 65 rated weatherproof enclosure (panel) in stainless steel shall be provided for electrical switching
      - i. An electrical isolator shall be provided adjacent to screen installation

The screen supplier/contractor shall be furthermore responsible for

1. Confirming the as-built dimensions of the Grit Chamber Structure and making suitable provisions and alterations as required for successful installation
  - a. This may include the installation of suitable baffles, extensions or rubber seals to measure
2. Transport of equipment to site in the Port of Cape Town, South Africa
3. Mechanical installation of the in-channel screen unit in accordance with the manufacturers recommendations
4. Electrical installation and wiring in accordance with the Standard Specification for Electrical Equipment and Installation for Mechanical Services.

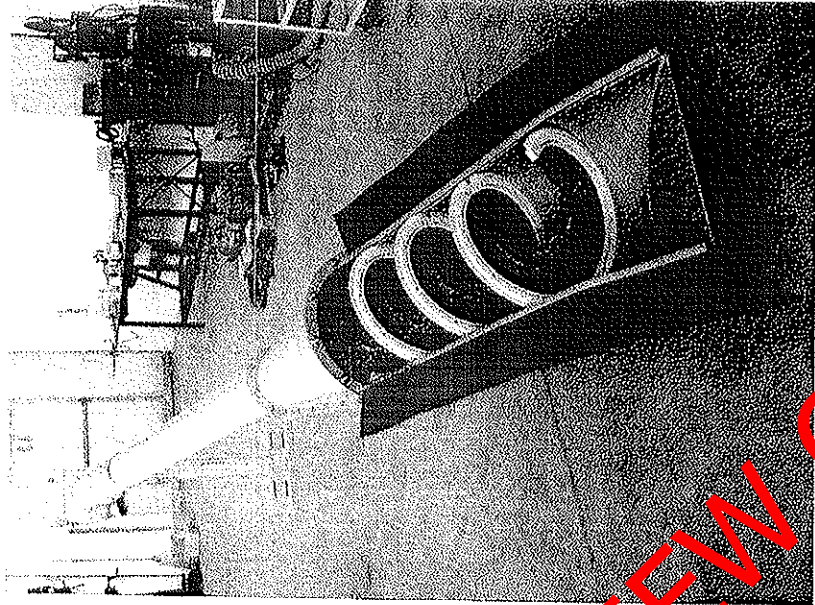
## Annexure B

5. Acceptance testing and commissioning

**"PREVIEW COPY ONLY"**



Annexes B



"PREVIEW COPY ONLY"

