



## CAPITAL EQUIPMENT PROCUREMENT

The selection of pulp & paper manufacturing plant and equipment is a Clearwater Consulting ("Clearwater") core competency. Our Project Management expertise will reduce the client's risk and cost by streamlining the selection process based on our knowledge and experience of reputable equipment manufacturers.

Clearwater has developed a streamlined and standardised procedure for equipment selection, procurement and validation. The process is based on industry standard models. The major steps of the Clearwater model are shown in the following Table:

<b>Process Stage</b>	<b>Description</b>
<b>1</b> Mill Requirement Specifications (MRS)	Documentation of the client's MRS. This document will contain regulatory, functional, operational, validation, after-sales-service, operating and maintenance manuals and installation specifications – as dictated by the needs of the client, the project and deadlines. The MRS is authorised by the client.
<b>2</b> Request for Quotation/Tender (RFQ)	In conjunction with the client's procurement department Clearwater project manages and co-ordinates the issuing of the MRS for quotation or tender. The process ensures that a comprehensive price spectrum is covered.
<b>3</b> Bid / Tender / Quotation Technical Analysis (TTA)	Clearwater has developed an extremely efficient procedure for the arduous task of analysing volumes of technical data presented in the quotations. The analysis is presented in a concise and intuitive format that will enable the client to cross reference all equipment options.
<b>4</b> Equipment Selection Report (ESR)	Clearwater prepares an Equipment Selection Report based on the information presented in the Technical Analysis. The selection criteria are based on the needs of the client.
<b>5</b> Client's Superintendent	Clearwater can further maintain the client's productivity by acting as the client's superintendent during the equipment manufacturing phase. Clearwater manages and co-ordinates all of the technical liaisons with the supplier of the equipment with whatever degree of interaction the client specifies
<b>6</b> Factory Acceptance Testing (FAT)	Clearwater offers the advantage of FAT coordination and management. FAT procedures are reviewed and upgraded to meet the client's requirements. We will generate a FAT Report and manage the implementation of changes.
<b>7</b> Site Acceptance Testing (SAT)	Clearwater will supervise the SAT. SAT procedures are reviewed and upgraded in accordance with the client's requirements.
<b>8</b> Installation	Clearwater will apply its own specific installation standards and protocols or review and update client or proprietary protocols. Our integrated Project Management System ensures continuity of technical information from the URS to start up.

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<b>9</b> Operation	Clearwater will draft specific operational protocols or review and update client or proprietary protocols. This includes drafting of Standard Operating Procedures (SOPs), Training Protocols, Process Documentation and Acceptance Test Procedures.
<b>10</b> Performance Acceptance and Guarantee	A significant advantage offered by Clearwater is our ability to actively assist the client at the final stage of performance validation. Our clients can rely on our manufacturing experience to supervise these critical trials in a methodical and efficient manner to ensure that the equipment is fully validated prior to handover to manufacturing.