

PRO-MIC Corporation * King of Prussia, PA, U.S.A. * 1-610-783-7901 * Fax: 610-783-7904

presents...



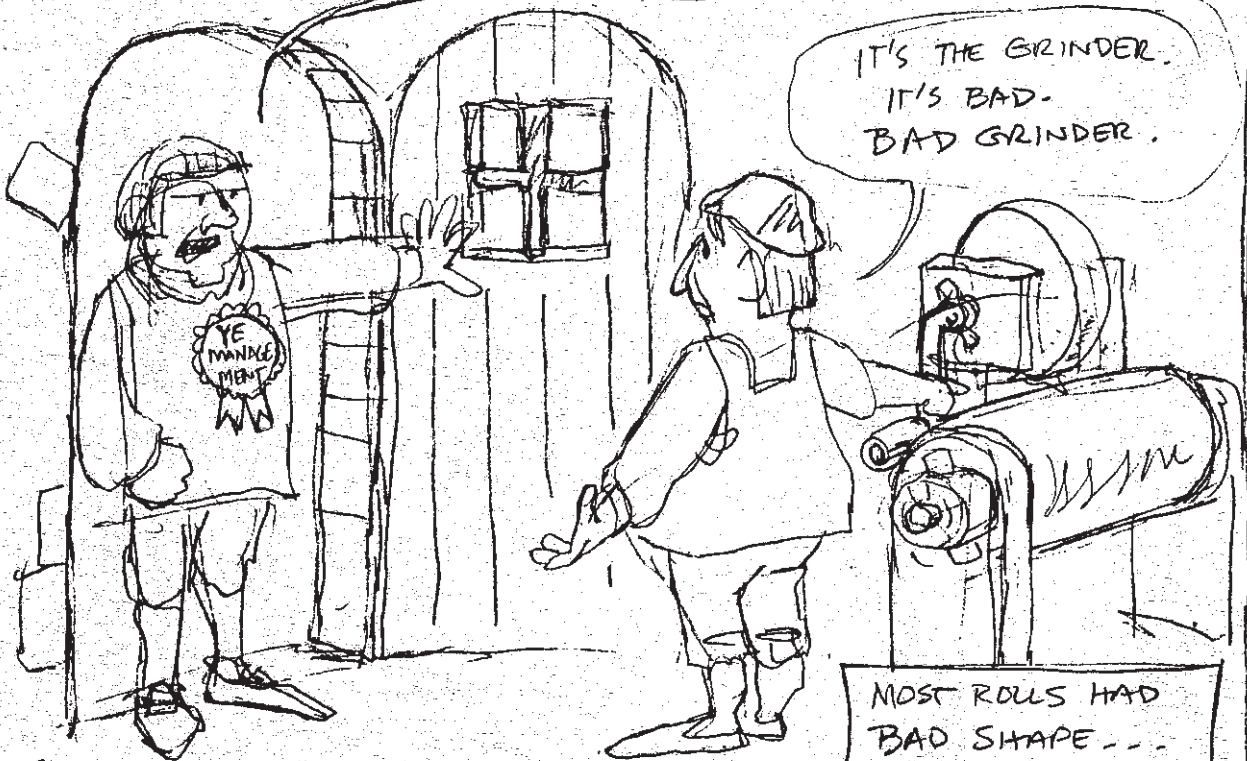
THIS BOOKLET IS PRINTED WITH SOY-BASED INK ON PAPER WITH A MINIMUM RECYCLED CONTENT OF 50% DE-INKED FIBER, INCLUDING 10% POST-CONSUMER WASTE

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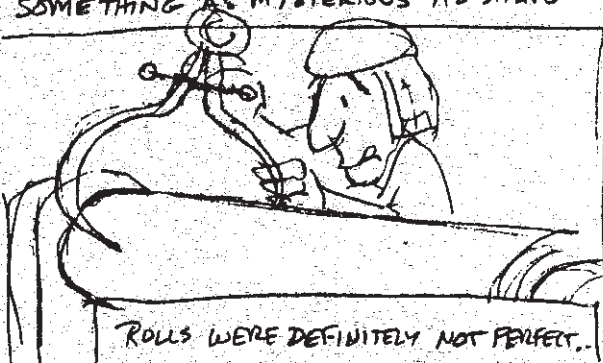


ONCE UPON A TIME...
IN A ROLL GRINDING SHOP
FAR AWAY...

WHAT'S THE MATTER
WITH THE SHEETS COMING OUT
OF THIS PLACE? ARE THE ROLLS
WRONG? THEY'RE WRONG, RIGHT?
IF YOU CAN'T GET THESE ROLLS RIGHT
HEADS MAY ROLL.

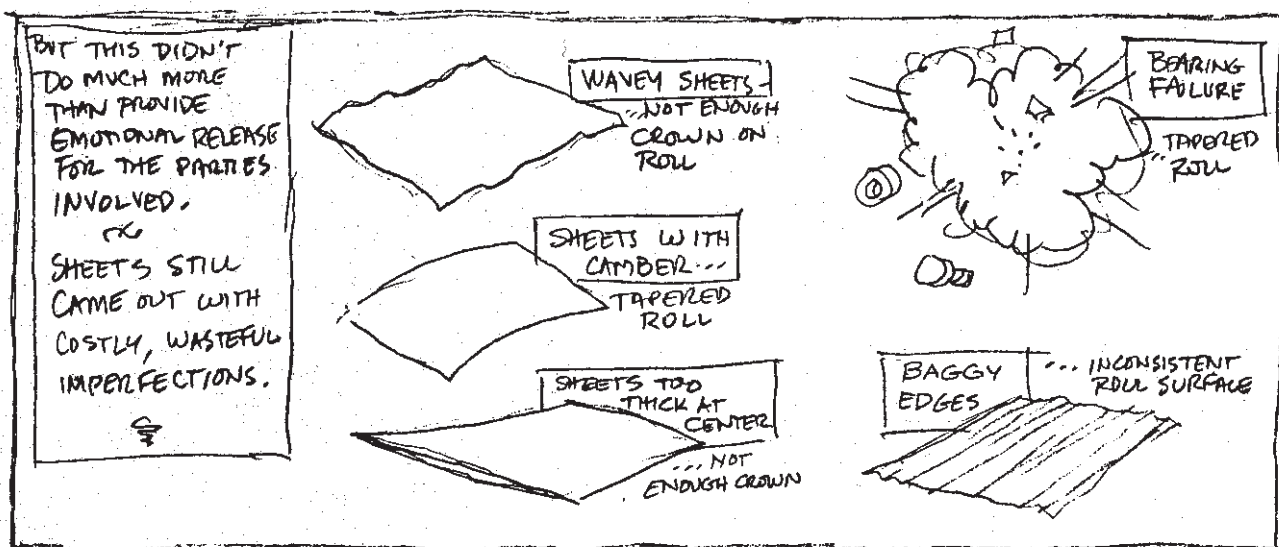
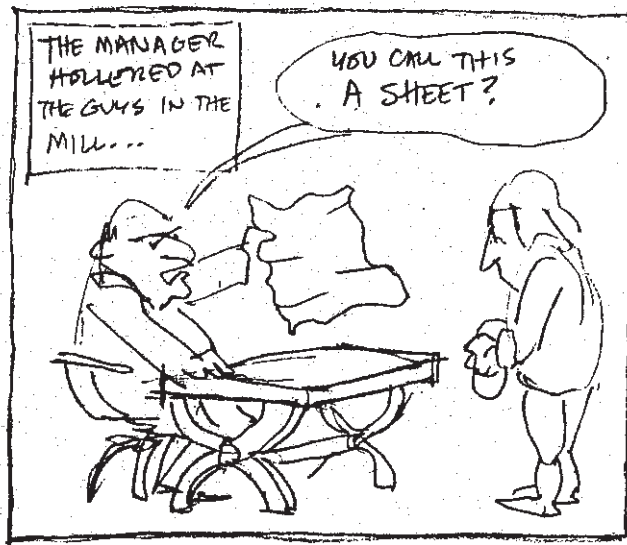


ROLLS WERE ONLY MEASURED
END-CENTER-END. IT WAS TEDIOUS
ENOUGH WITHOUT EVEN TRYING TO MEASURE
SOMETHING AS MYSTERIOUS AS SHAPE



THEREFORE ROLLED SHEETS WERE
NOT PERFECT...





I'M HERE TO HELP YOU FIND THE PERFECT SHAPE. THAT'S MY MISSION. IT'S SORT OF AN ETERNAL QUEST KIND OF THING.

I GUESS THAT EXPLAINS THE OUTFIT??

WHAT YOU REALLY NEED IS A BETTER WAY TO MEASURE THINGS... WE'LL JUST PUT THIS BABY UP HERE AND...

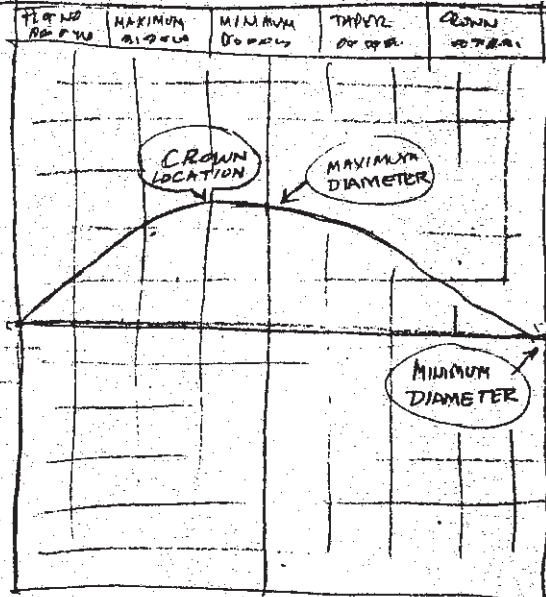
IN JUST 30 SECONDS PRO-MIC WILL MAKE IT EASIER TO SEE WHAT HAS TO BE DONE ---

--- TO GET THE CROWN IN THE CENTER

--- AND GET RID OF THE TAPER

HERE... IT'S ALL IN THIS REPORT. CHECK IT OUT. I GOTTA GO. THE OUTFIT'S RENTED AND IT'LL COST ME EXTRA IF I GET IT BACK LATE.

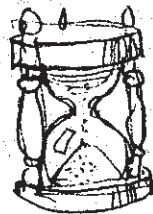
THE PRO-MIC PROFILE REPORT CAN DISPLAY THE TRUE CONTOUR OF ROLLS UP TO 500 INCHES LONG, AND IS AUTOMATICALLY SIZED VERTICALLY TO MAKE THE LARGEST POSSIBLE PLOT



AND SO, WITH THE HELP OF PRO-MIC, THINGS BEGAN TO LOOK UP AROUND THE GRINDING SHOP---

GOSH, THESE ROLLS ARE SO MUCH BETTER. AND PEOPLE DON'T STARE AT ME SO MUCH ANY MORE

TIME PASSES ---



BUT THE QUEST
FOR THE PERFECT
ROLL WASN'T
OVER YET. TO BE SURE,
THE SHEETS WERE
BETTER BECAUSE THE
ROLLS WERE BETTER
...
BETTER ... BUT
NOT PERFECT..

AND CUSTOMERS WERE
GETTING PICKIER ...



AND HOLLERING
AT MANAGERS ...



WHO HOLLERED
ETC ETC ...
... ETC ...



WHAT'S A MATTER ???
THESE ROLLS AREN'T PERFECT!



BAD GRINDER
BAD GRINDER



ALL THIS COMMOTION CAUGHT THE ATTENTION
OF PRO-MIKE, STILL ENGAGED IN
THE SEARCH FOR THE PERFECT SHAPE.

I THOUGHT THIS MIGHT
HAPPEN EVENTUALLY ...
... I THINK I KNOW
JUST WHAT THEY
NEED.

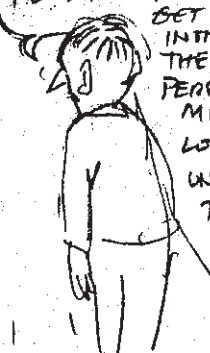


WHAT SEEMS TO BE THE
PROBLEM HERE?



YOU MUST BE PRO-MIKE.
I'VE HEARD OF YOU
GOOD GUESS.

I DON'T KNOW WHAT'S WRONG
PRO-MIKE. NOWADAYS, I CAN
GET THE CROWN
IN THE MIDDLE, BUT
THE SHAPE STILL ISN'T
PERFECT ... SOMETHING
MISSING ... I FEEL
LONELY, UNAPPRECIATED
UNFULFILLED, BUT
THAT'S ANOTHER
STORY



I CAN SEE THAT. I CAN
ALSO SEE WHAT'S MISSING
-- IT'S THE ENDS

THE ENDS ? ...

THE ENDS OF THE ROLL
... THEY'RE MISSING FROM
THE PLOT.

THERE'S A LOT MISSING
FROM THIS PLOT, BUT
WHAT CAN WE DO ABOUT
IT, PRO-MIKE?

OUTSIDE OF HIRING A
NEW WRITER, I THINK
THIS IS A JOB THAT
CALLS FOR ...

PRO-MIKE
PLUS!

HERE'S THE ANSWER
TO YOUR PROBLEMS.
(WELL, SOME OF
THEM ANYWAY)

WHO'S HE? HOW'S THAT GOING TO HELP?
WHY DOES IT HAVE ANOTHER SET OF ARMS?
AND HOW DID HE GET HERE?

YOU NEED HELP. I'M HERE. LET ME EXPLAIN.

--- LOOK - HERE'S YOUR PROBLEM AS I SEE
IT - MOST OF A ROLL COULD LOOK PRETTY GOOD,
BUT BAD SHAPE AT EITHER END WOULD HAVE
THE SAME EFFECT ON THE STRIP YOU'RE
TRYING TO RUN AS A BADLY TAPERED ROLL ---
--- AND YOU WOULDN'T SEE IT ON THE
PLOT. THAT'S WHERE I COME IN.

THIS NEW END-TO-END SUCKER WILL
GIVE YOU THE BIG PICTURE - THE TRUE
END-TO-END PICTURE,
I LIKE TO CALL IT.

... AND HAVE YOU CONSIDERED
SYMMETRY? ...

WHAT ABOUT SYMMETRY?

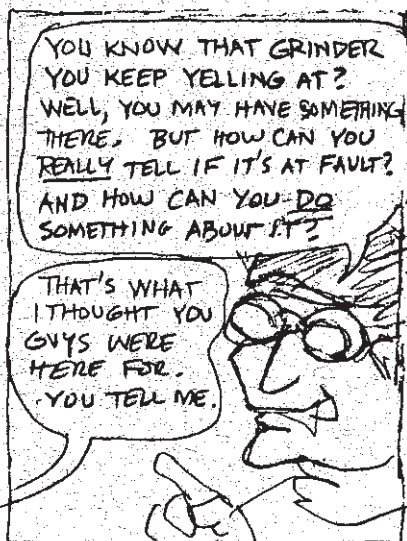
I'M GLAD YOU ASKED. LOOK,
EVEN IF YOU GET THE CROWN
IN THE MIDDLE, IF THE ROLL
SHAPE ON ONE SIDE OF THE CROWN
DOESN'T MATCH THE OTHER
SIDE, YOU MIGHT AS WELL

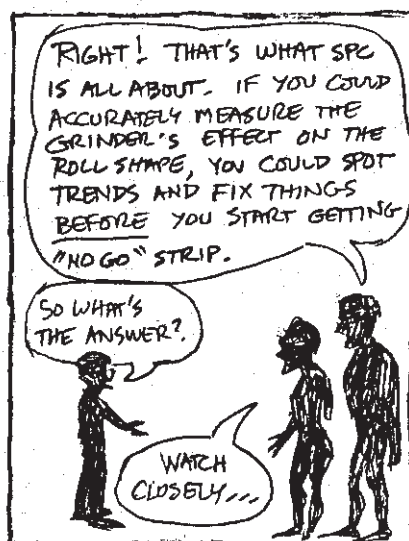
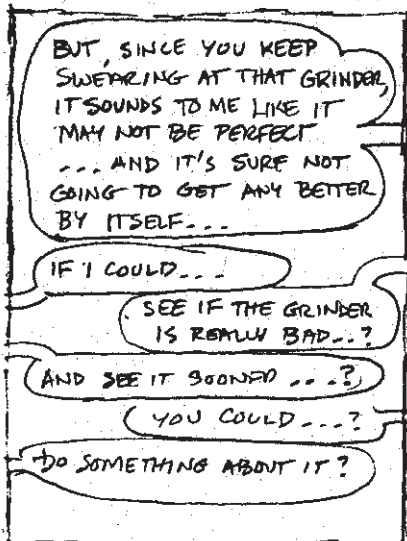
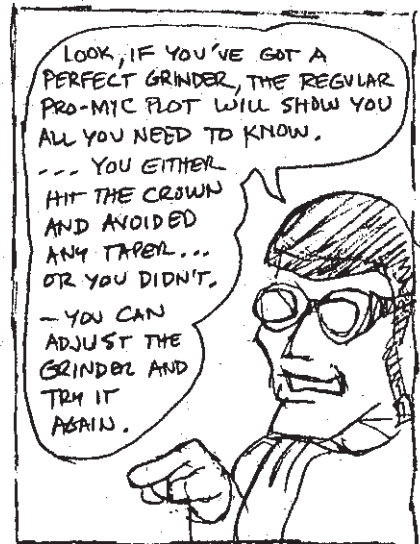
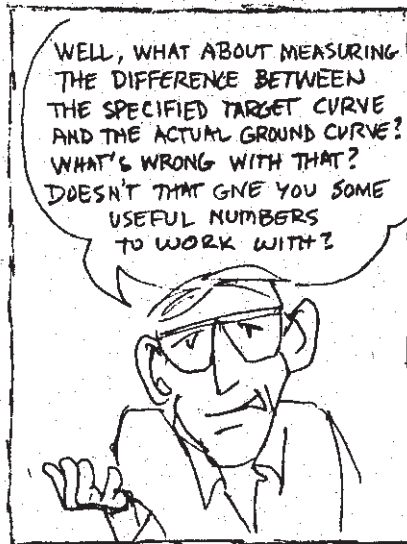
HAVE A
TAPERED
ROLL
AS FAR
AS THE
SHEET'S
CONCERNED.

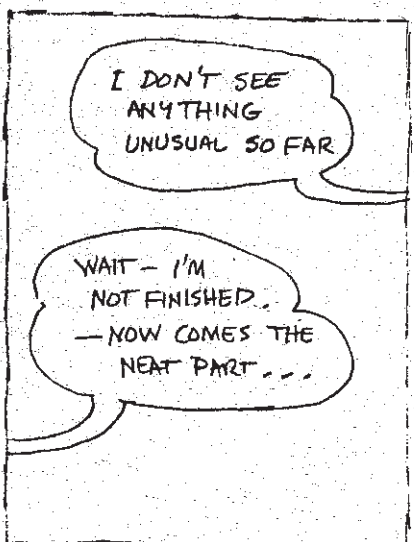
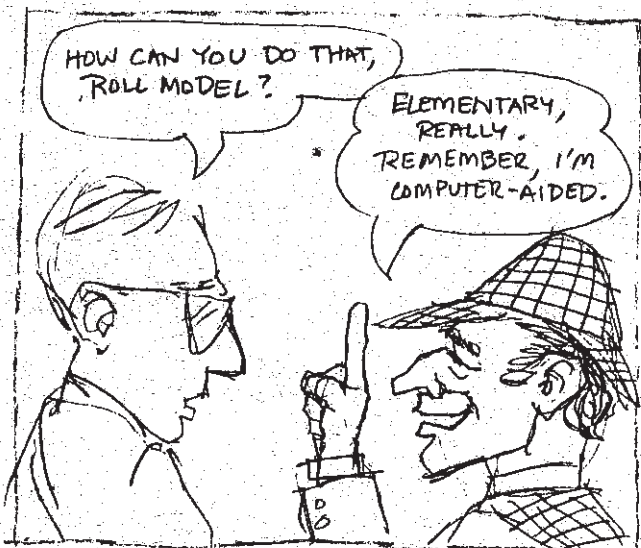
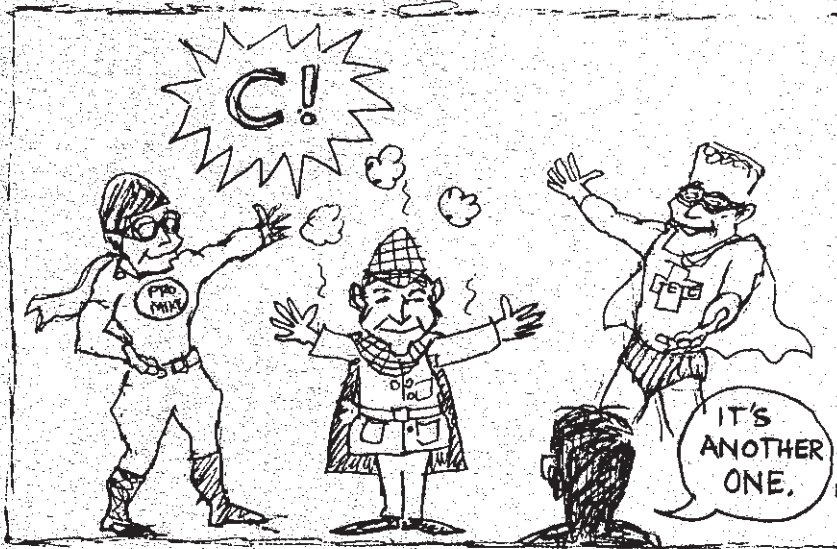
SINCE I CAN READ ALL THE WAY TO THE ENDS,
I CAN COMPARE THE LEFT AND RIGHT HALVES ---
AND PLOT THE DIFFERENCE -
RIGHT DOWN HERE. SEE?

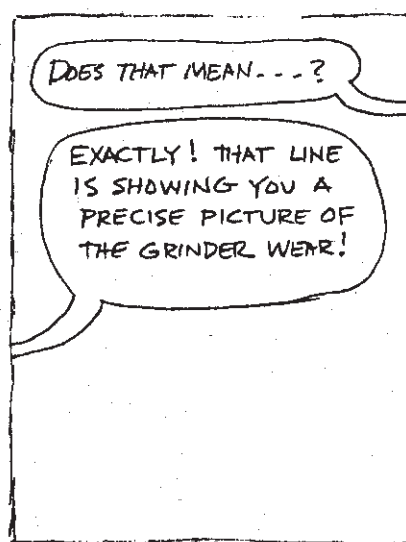
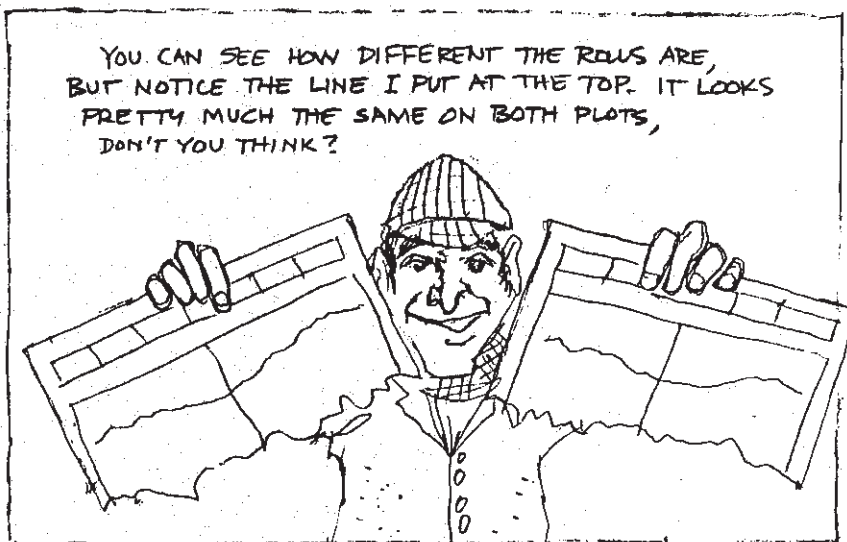
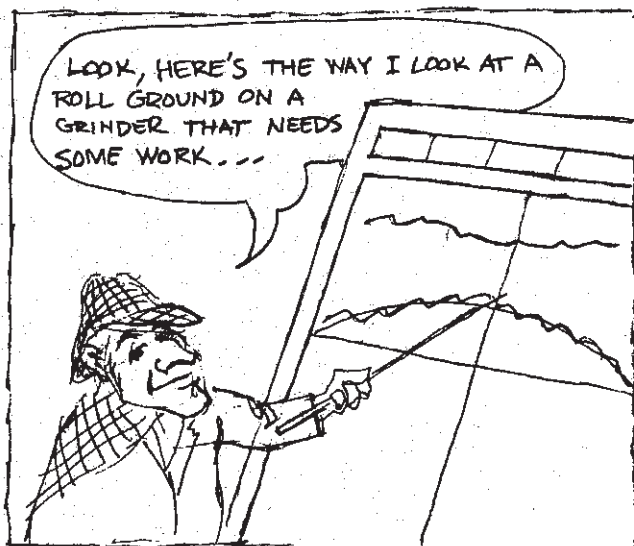
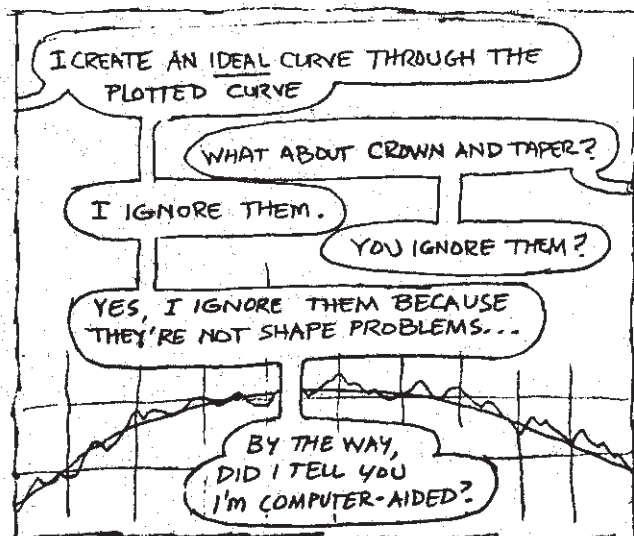
THE IDEAL DIFFERENCE
CURVE WOULD BE A STRAIGHT
LINE - NO DIFFERENCE
BETWEEN THE
LEFT AND
RIGHT HALVES

OKAY. IT
LOOKS LIKE
FOUR ARMS
MIGHT BE BETTER
THAN TWO.
I'LL GIVE
IT A
TRY.









YOU COULD BE ADJUSTING YOUR GRINDER - TRYING TO HIT A SPECIFIED CURVE - UNTIL THE COWS COME HOME, OR 'TIL YOU'RE BLUE IN THE FACE (WHICHEVER COMES FIRST), BUT YOU'D NEVER KNOW EXACTLY WHAT THE GRINDER'S DOING WRONG. . . . UNTIL NOW.



THAT BAD GRINDER YOU'RE ALWAYS BLAMING? NOW YOU CAN PROVE IT. - WITH PICTURES, EVEN.



JUST KEEP YOUR EYE ON THESE PLOTS I GENERATE OVER A PERIOD OF TIME, AND YOU'LL SEE A SORT OF ANIMATED MOVIE OF GRINDER WEAR.



AND SPC NEEDS SOME REAL NUMBERS TO WORK WITH, SO I GIVE YOU WHAT I CALL THE SHAPE FACTOR.

TYPICALLY, A SHOP WILL WATCH THAT NUMBER UNTIL IT GETS TOO HIGH, AND THEN FIX THE GRINDER.

SHAPE FACTOR: 0.4

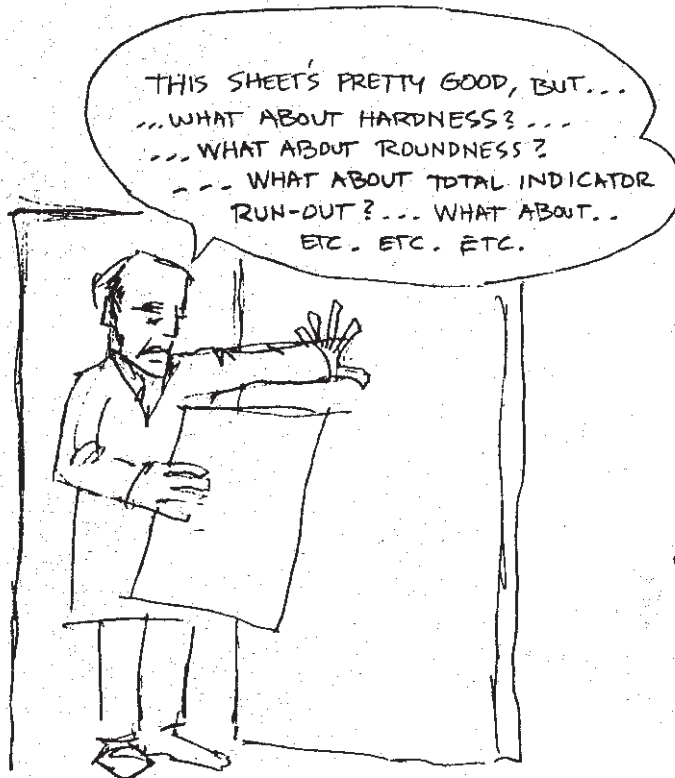
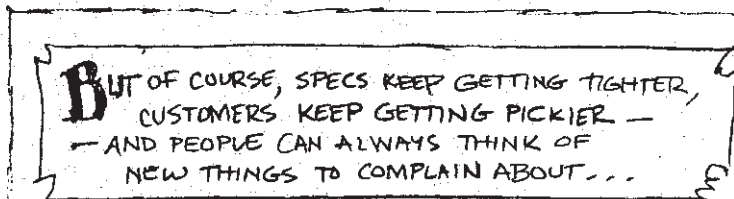
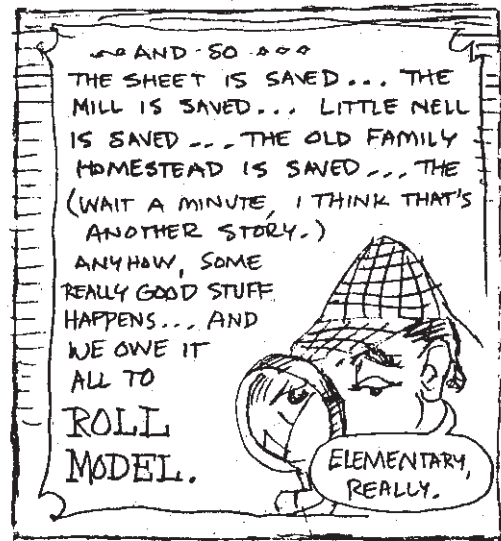
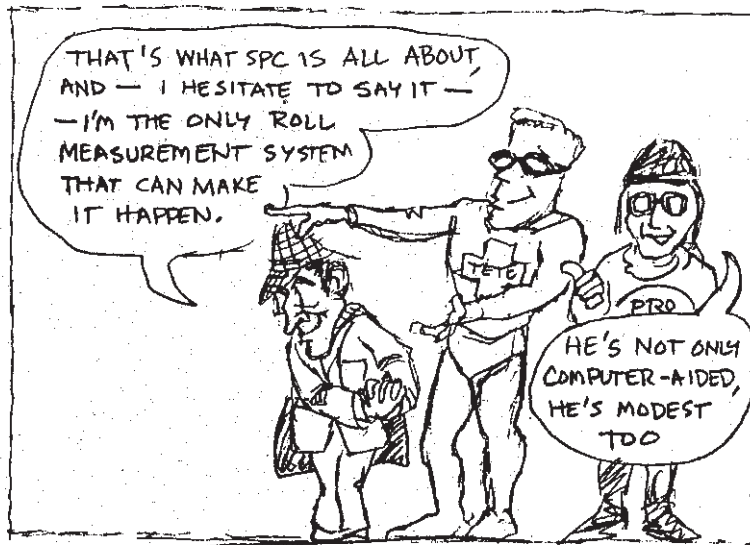
I ALSO CALCULATE A SYMMETRY FACTOR TO SHOW HOW WELL BOTH ENDS OF YOUR ROLL ARE MATCHING EACH OTHER. . . . I PUT THAT RIGHT DOWN HERE BELOW THE SYMMETRY PLOT.

SYMM FACTOR: 1.2

DO YOU THINK PEOPLE WILL STOP HOLLERING AT ME NOW THAT I CAN SHOW THEM ALL THESE NUMBERS AND STUFF?

I WOULDN'T BET ON IT. - BUT AT LEAST YOU'LL BE ABLE TO SPOT GRINDER WEAR EARLY ENOUGH TO FIX IT BEFORE YOU WASTE A LOT OF TIME AND MATERIAL AND MONEY.





RB