

C O P Y

cc: R. M. Burns
W. J. Sheehan
R. S. McGranahan

April 29, 1968

TO: S. M. Lillis
FROM: V. J. Labrecque

SUBJECT: NEW PRODUCTS

RE: CLUTCH FACINGS

We have reviewed your note of 4/22/68 to Mr. Burns on the above subject and would comment as follows:

1. In our opinion, if we are to consider this development, we should channel our efforts towards a process and possibly a composition, different from that now used.

We feel that some new approach might give us an advantage - price and/or performance that would warrant consideration by the customer more than a "me too" product.

2. We feel we have the capabilities to develop an optimum combination of materials such as asbestos, elastomer and/or resins, that would provide the necessary friction coefficient, wear characteristics and heat resistance required.
3. Indications are that the most important test for which we would need base lines would be the Centrifugal force test.

In evaluating this characteristic the construction would be of utmost importance. If we are to proceed, early preliminary work would have to be done with constructions to determine whether or not the necessary resistance to centrifugal force can be developed in constructions other than the wound woven wire in a matrix.

This test is not dependent on friction or wear.

4. Samples have been sent out for an IR identification of basic ingredients.

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We would suggest that some preliminary work be done from which we could determine whether it would be feasible for the Victor Divisions to undertake the development of such a product line. A "plan of action" and approximate cost in man hours is outlined below.

PLAN OF ACTION

	<u>MAN HOURS</u>	(Approx)	<u>COST</u>	(Approx)
1. Sample identification (OUTSIDE)			300.00	
2. Patent Review	10 Hrs. @	10.00	100.00	
3. Literature Review	20 " "	" "	200.00	
4. Observation of test equipment and test procedures	8 " "	" "	80.00	
		Travel	50.00	
5. Preliminary work with combinations of materials	40 " "	" "	400.00	
	10 " "	6.00	60.00	
6. Preliminary investigations of possible constructions using information from 1 and 5 above	80 " "	10.00	800.00	
	20 " "	6.00	120.00	
a. Coiled wire molded in wet and/or dry mix.				
b. Coiled wire imbedded in a Victopac process.				
c. Perforated core				
(1) Victopac process				
(2) Molded				
(3) Version of Corpac 500 process				
d. Other				
7. Prototype samples	estimate		500.00	
	mold		200.00	
8. Evaluation @ C & M Div.			???	
	TOTAL (Approx)		2810.00	

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It is our opinion that it would cost approximately \$3000 to get some indication as to the feasibility of a different process. It would also require the services of one man for approximately one month. We do not have such a man available unless we drop other work and/or extend such an investigation over a considerably longer period of time.

We would appreciate your comments and your advice as to whether or not we should proceed.

V. J. Labrecque

VJL:sp

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