

1 Title: Report of Drill Mixing Paddle Types for Repair Materials

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3 Objective: It is extremely difficult to specify equipment for concrete repair, for example  
4 mixing paddles used with drills. The many different types of paddles produce different  
5 consistencies and properties in the mixing of the material. The objective of the proposed  
6 document is to provide a pictorial atlas of different mixing paddle designs so that (for  
7 example) a specifier or material supplier could state “Mix with Mixing Paddle #3 as  
8 described in ICRI 320.XXXX” or (as another example) an investigation into a repair  
9 application could state “The material was mixed using a 900 RPM ½ inch drill and  
10 Mixing Paddle # 7”. The document could even provide an electronic drawing for  
11 download as a possible revenue stream for ICRI of the graphics if reproduced in  
12 publications.

13

14 The pictures below are extracted from vendor web sites and intended only as an example  
15 of the document. In final form, the pictures would need converted to line drawings to  
16 avoid copyright issues. The intent of the document would not be to advocate one type of  
17 paddle or piece of equipment vs. another, discuss mixing efficiency, or other properties,  
18 but simply to provide a single source reference to describe current trade practice  
19 equipment.

20

21 Further extension of the document could also be used to pictorially describe

- 22 • “mortar mixers” to graphically show the difference between tumble mixers,  
23 horizontal shaft inclined paddle, pan mixers, “Kol”/”Mixall “ rotating drum stationary  
24 arm mixers, etc. (see Fig. A-D)
- 25 • Shotcrete nozzles
- 26 • Concrete vibrators
- 27 • Etc.

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29 The idea is to “keep it simple”. Recommendations for particular equipment would be  
30 beyond the scope of the document-it just provides a pictorial atlas of drawings to be used  
31 for descriptive purposes through reference by material instructions, specifications, etc.

1 The document could be relatively easy to expand as more types and classes of equipment  
2 were added.

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4 Outline:

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6 1. Title

7 2. Committee Roster

8 3. Table of Contents

9 4. Scope

10 5. List of Figures

11 6. References (if design is patented or otherwise proprietary).



Figure 1 Drill Mixing Paddle #1



Figure 2 Drill Mixing Paddle #4



Figure 3 Drill Mixing Paddle #3



Figure 4 Drill Mixing Paddle #2



Figure 5 Drill Mixing Paddle #5



Figure 6 Drill Mixing Paddle #7



Figure 7 Drill Mixing Paddle #6



Figure 8 Drill Mixing Paddle #8



Figure 8 Drill Mixing Paddle #9



Figure 9 Drill Mixing Paddle # 10



Figure A Horizontal Shaft Mortar Mixer



Figure B Tumble Mortar Mixer



Figure C Rotating Drum Stationary Arm Mixer



Figure D Pan Type Mortar Mixer