

## 74.0 In-Plant Procedures to Select and Justify Filtration Systems

Now, for the first time, a productive program of known facts and filtration systems designed as an in-plant training exercise to help coolant filtration engineering personnel justify, select, authorize and apply cost efficient filtration principles to specific manufacturing needs, is available so economical cost reduction filtration can be easily initiated. The procedure pin points the necessary steps by allowing the Departments to establish priorities.

### Departments

- a. Coolant Engineers
- b. Coolant Control
- c. Maintenance
- d. Production
- e. Inventory
- f. Purchasing
- g. Recycling
- h. Disposal

### Priorities

1. Application
2. Gallons per minute
3. Micron Clarity
4. Parts per million acceptability
5. Specific filtration principle
6. Allocated floor space
7. Option

The actual selection of filtration for a specific application is fraught with costly pitfalls as the parameters, to readily and easily identify basic problems are many times not apparent even to the most experienced observer and the persons who make monetary decisions are even less observant to filtration problems.

However, it must be a group effort and the 2 groups that must interact are:

### Group 1

1. Production Supervisors/Operators
2. Plant Manager/Mfg Engineer
3. Plant Engineer/Maintenance
4. Metallurgist/Chemist/Environment Engineer  
Wheels
5. Purchasing/Budget Control  
applicable)

### Group 2

6. Vendors/Coolants/Cuffing Fluids
7. Disposal Contractor
8. Vendors Filtration Equipment
9. Vendors Machine Tools, Grinding
10. Government agencies (if

Group 1 and 2 must interact and communicate, so as not to impede the process. This is accomplished by close supervision and control of the filtration selection and the intent/purpose of this system is to focus attention on communication problems by outlining an effective technique, in conjunction with various forms, to acquire and interpret the necessary data to complete a filtration selection.

1. Designate a Filtration Project Co-coordinator and one person, plus alternates from each of group (1 -5) to assist the Co-coordinator. This title and responsibility is rotated on a project basis.
2. Designate a Recording Secretary to keep minutes of all meetings.
3. Meetings consist of 2 or more persons gathered, at one time and place, from Group 1 and 2.
4. Group project meetings are convened or held to accomplish project goals.

Project Goals	Group members to attend
a. Identify the problem	1,2,3,4, 5,6,7,8,9 and 10
b. Define the problem	1,2,3,4,5,6,7,8 and 9
c. Justify the solution	1,2,3,4,5,6 and 10
d. Select the solution	1,2,3,4,5,6 and 8
e. Apply the selection	1,2,3,4,7 and 8

## **These rules must be maintained by each group member in order to achieve maximum results.**

Rule 1: All gathered and related project data is recorded during meetings with a recording secretary present.

Rule 2: Information/data from the meetings are assembled, published and distributed, by the secretary via appropriate format, to each group member/alternate immediately following the day of the meeting. Any action other than that recorded and distributed is not official to the project and has no validity.

Rule 3: The use of pre-presented filtration data forms, from the system manual, to facilitate an accurate cost effective decision is an absolute necessity.

To further illustrate the necessity to use system forms, the following data combinations, is information that is commonly ignored, manipulated, inaccurate, not identified or not reported. Readers may have other examples from their experience:

1. Parts per million (ppm) or stock removal rate inaccurate.
2. Machine gallons per minute at the work piece inaccurate.
3. Flushing gallons per minute inaccurate.
4. Floating material condition not reported.
5. Suspended material condition not reported.
6. Fluid bacterial, fungi, slime and mold not reported.
7. Contaminants in fluid not reported.
8. Fluid not matched to filtration principle or to operation.
9. Filtration principle not matched to operation.
10. Micron clarity requirement overstated.

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