Filter Media Selection



Address 1							Postion			
Address 2							Phone			
Address 3						_	Fax			
Table A							Table D			
Pressure & Duty	Cycles						Life Expectanc	У		
I o take account o	of the Normal operation	ing								
n magnitude & fre	equency)						Hours		Weighti	ng
Dronouro: Calast	poroting process						0 - 1,000		0	
Tessure; Select o Duty;	operating pressure						5,000 - 5,000		1	
LIGHT	Continuous operati	ion at rated	pressure o	or			10,000 - 20,000		3	
MEDIUM	iower Medium pressure o	changes up	to rated				∠0,000 +		5	
HEAVY	pressure Zero to full pressur	re								
SEVERE	Zero to full pressur	re - with tran	sients at					v	Weighting No .	
	high frequency (0.6	6Hz) (e.g. po	ower unit				Toble E			_
	supplying a punchi	ing machine	9				Component Fo	onomic Liability		
Select weighting f	rom table below;						To account for t	he cost of component replace	ement	
Pressure		Dutv				Γ		Examples	Weightin	na
							Very High	Large Piston pumps,		5
PSI) - 1015	Bar 0 - 70	Lt 1	Med 2	Hvy 3	Sev 4			large high torque low		,
1015 - 2175	70 - 150	1	3	4	5		High	Cylinders, servo valves,		-
2175 - 3625	150 - 250	2	3	4	6		Aug	piston motors		3
ວບ∠ວ - ວ∪75 5075 +	∠ou - 3ou 350 +	3 4	5 6	ט 7	8		Average Low	Subplate mounted		2
		<u>.</u>						valves, inexpensive		
								gear pumps		
		Weig	gnting No).						_
Table D								V	Weighting No .	
Environment							Table F			
Environment							Table F Operational Ec	onomic Liability		
Good	Examples	<u> </u>	We	eighting	0		Table F Operational Ec To account for t	onomic Liability he cost of downtime		
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Filter Media Selection





Example

Consider a large hydraulic excavator operating in a quarry. The hydraulic system includes pressure compensated piston pumps and very large lift cylinders

Operating Pressure & Duty Cycle (Table A)

The system operates at 245 bar with extremes of both flow & pressure fluctuations in a cycle that that is repeated approximately four times every minute. For this reason it is considered to be Heavy Weighting = 4

Environment (Table B)

The environment in which this machine is working can, in dry weather, be very dirty. As a result, ingression is likely to be high. Poor Weighting = 2

Component Sensitivity (Table C)

Although the majority of the components are considered to be of average sensitivity, the pumps are; Above Average Weighting = 4

Life Expectancy (Table D)

The annual usage is about 2000 hours & component life is expected to be about 4 years hence 8000 hours and a weighting of; 5,000 - 10,000 Hours Weighting = 2

Economic Liabilities (Components) (Table E)

Components such as lift cylinders & variable piston pumps are quite expensive for the end user to purchase. Component costs are high, hence; Weighting = 3High

Economic Liabilities (Operational) (Table F)

Economic liabilities caused by downtime vary depending upon the specific quarry situation, but the high capital cost of the sysytem puts it in the HIGH category. High

Weighting = 3

Safety Liabilities (Table G)

No additional weighting to take account of safety is required Low

Weighting = 0

Total Weighting (Sum of Individual Weightings) = 18 The weighting selected is in the range of 4 to 13 microns The media selected should have a mimimum Beta Ratio Beta₁₃ = 200 (99.5% efficient)

Filter Media Selection





MICROGLASSI

ECOOGLASS