



Garrett VanGosen
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Keys To Success In Working With Manufacturers

Questions of the Day

- Who the heck are you?
- What do consulting engineers want from manufacturers?
- What do manufacturers want from consulting engineers?
- What do consulting engineers need to know about what manufacturers do?
- Are we done yet?

Who The Heck Are You?

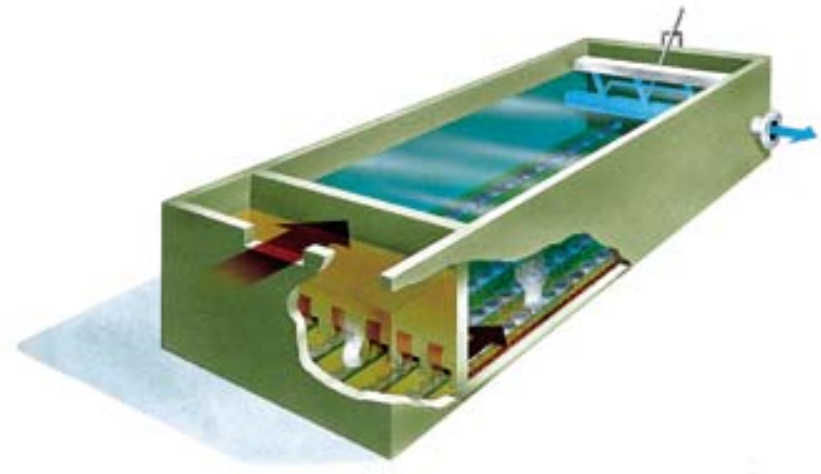
Sanitaire

- Started in 1967
- Diffused Aeration
- SBR Process Equipment and Controls
- Package Plants



Garrett

- Preliminary Designs
- Pricing
- Bid Jobs
- Spec. and Design Reviews
- Interface With Consulting Engineers and Plant Personnel



A Question For You...

What concerns do you have about working with vendors?

What Do Consulting Engineers Want From Manufacturers?

What Do Consulting Engineers Want From Manufacturers?

Things We Get Asked For:

- Technical Information
 - Design Calculations
 - Drawings
 - Specifications
 - Testing Data
- Support Information
 - Pictures
 - Installation Lists
 - References
- Pricing

Sanitaire
 ITT Industries

Job #	Plant
95-3203s	J.R. Crompton Paper Mill
98-3965s	R.D. Werner Co.
98-3936s	Red Deer
98-3934s	Winston Green Wwtp
05-6026s	Hubbard - WWTP
05-6139s	Barrow WWTP
89-1830s	Eagle River
98-4111	Kodiak
04-5618s	Soldotna WWTP
06-6323s	Albertville - East Side WWTP
06-6422s	Albertville WWTP
06-6225s	Anniston - Choccolocco WWTP

SOTE (%)

Tuesday, July 14, 2009

SANITAIRE Ceramic Disc Partial Installation List

Maple Lodge STW England, UK Permitted Average Daily Flow 25,300 Ceramic Diffusers Start-up Date 1997	Owner: Contact:	Engineer: Balfour Beatty Civil Engineering Ltd.
MCES/Metro Plant, MN St. Paul, Minnesota USA Permitted Average Daily Flow: 250 MGD 231,072 Ceramic Diffusers Start-up Date: 1996	Owner: Metro Council Environmental Services Contact: Dick Clausen (651) 303-4516 Cell	Engineer: Metro Council of Env. Serv. Greeley & Hansen Jung Lee
Metro Wastewater Reclamation District Denver, Colorado USA Permitted Average Daily Flow: 36.6 MGD 69,984 Ceramic Diffusers Start-up Date 1977	Owner: City of Denver, Colorado Contact: Jim Tallent and Steve Walker (303) 762-2600	Engineer: Black & Veatch
Catoma WWTP Montgomery, Alabama USA Permitted Average Daily Flow: Start-up Date: 1995	Owner: City of Montgomery, Alabama Contact: Tom Thompson	Engineer: CH2M Hill
Racine WWTP Wisconsin USA Permitted Average Daily Flow: 10,465 Ceramic Diffusers Start-up Date: 1991		Engineer: Donohue & Associates
Rockford/Rock Creek Rockford, Illinois USA Permitted Average 37,760 Ceramic Start-up Date:		Engineer: Black & Veatch
Dos Rios WWTP San Antonio, Texas USA Permitted Daily 55,000 Ceram Start-up Date:		Engineer: Malcolm Pirnie, Inc.
Singapore Permitted Av 44,808 Ceram Start-up Date:		Engineer: Montgomery Watson
Springfield WW Massachusetts Permitted Avera 36,601 Ceramic L Start-up Date: 199		Engineer: Malcolm Pirnie
Syracuse Metro WW New York USA Permitted Average Daily 45,056 Ceramic Diffusers Start-up Date: 1998		Engineer: O'Brien & Gere
Tillman Island Los Angeles, California USA Permitted Average Daily Flow: 80 MGD 27,367 Ceramic Diffusers Start-up Date: 1990		Engineer: City of Los Angeles
Trinity River Authority Central Ferris, Texas USA Permitted Average Daily Flow: 137 MGD 40,320 & 40,824 Ceramic Diffusers Start-up Date: 1999 #87-1531 & #89-1951	Owner: City of Ferris, Texas Contact: Bill Tatum Bill Syrus (972) 331-4341	Engineer: Hydroscience Freese & Nichols
Ulu Pandan Singapore Permitted Average Daily Flow : 29,718 & 54,736 Ceramic Diffusers Start-up Date 1990 #90-2109 and #93-2712	Owner: Singapore Contact:	Engineer: Ministry of the Environment
Yakima Washington USA Permitted Average Daily Flow: 22.3 MGD 11,040 Ceramic Diffusers Start-up Date 1988	Owner: City of Yakima Washington Contact: Doug Mayo (509) 575-6077	Engineer: CWC-HRD

ABJ



What Do Manufacturers Want From Consulting Engineers?

Purchase Orders!



Equipment Information

- Standard information
 - Location
 - Dimensions
- Project Specific Information
 - Better info = Better design
- What sort of conditions will this actually be run at?
 - Start-up v. 20-year design
 - Condition Labels



Specifications

- We want a chance to review and discuss specifications.
- We want the consulting engineer to stand behind the specification.



Project Information

- How far along is the project?
 - We like to forecast
- When will this project actually bid/award?
- How do manufacturers get named?
 - Are other manufacturer's actually evaluated?
 - Be careful what you wish for...



After The Bid

- Continuity from design to submittal stages.
- Contract Drawings With Dimensions
 - Quality Drawings = Quality Submittals
 - Bad Drawings = Worse Submittals



Consideration of Manufacturer's Time

- Emergencies are okay, but every situation is NOT an emergency.
- Reasonable time frames.
- What level of information is really needed?
- Proposal Drawings: Custom v. Standard
- Communication!

What Do Consulting Engineers Need To Know About What We Do?

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- We only get paid when job is sold.
- We want to help the job along.
- Off-the-shelf items v. Process/System Supplier
- Budget Price v. Bid Price
 - Heavy Specification v. Standard Budget
- Manufacturer's assumptions can have a large effect on scope/price.
 - We try to be conservative but cannot foresee all special considerations.

Design Considerations That Can Effect Scope/Price

- Temperature
- Cooling Loop
- Air Distribution
- System Headloss
- Pressure
- Mixers
- Sloped Floors
- Obstructions (columns, sumps)
- Influent Location
- Corrosion
- High Velocities
- Special Dropleg Configurations
- Dropleg Supports
- Feeder Pipe
- Joints (expansion / contraction)
- Fillets
- Recycle Pumps

Are We Done Yet?

“Coming together is a beginning.
Keeping together is progress.
Working together is success.”
-Henry Ford