NOANDISHAN ARYA
PROCESS & ENERGY ENG. CO

MIXING TECHNALOGY
DYNAMIC MIXERS

AGITATORS OR DYNAMIC MIXERS

Dynamic mixers are mostly found in following applications:

- Water Treatment
- Blending
- Dispersion (Immiscible Systems)
- Reactions in Solutions(Miscible Systems)
- Dissolution
- Solids Suspension
- Gas Applications
- High Viscosity Applications
- Heat Transfer
- Crystallization or Precipitation

Example application of dynamic mixers for water treatment field:

- Reagent preparation
- Neutralization
- Suspension of sledges
- Lime and active carbon Solution Preparation
- Polymers
- Solution preparation
- Potablization

Motor electrical characteristic

- Supply: 230/400 V three phase
- Protection: IP 55
- Insulation class B (minimum)
- Motor speed 1500 rpm
- Motors are in accordance with national and international standards
- On request: specific or special motors are available

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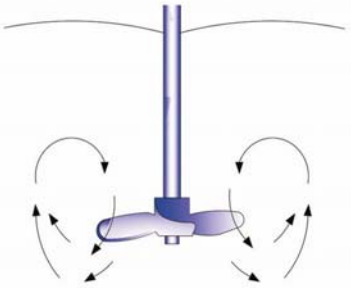
CHOICE OF MIXING ELEMENT

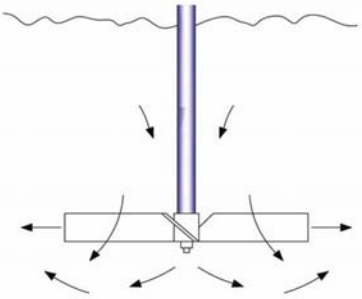
Marine type Propellers:
Economic blending for small volumes

These traditional mixing elements are used for solids dissolution or suspension, liquid-liquid blending, and preparation emulsion. They generate a medium level of turbulence. For reasons of weight, these propellers are only used at small diameters and most often operate at high speeds (direct drive).



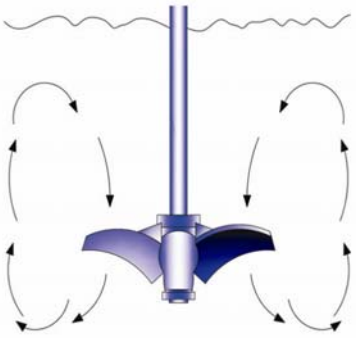
Axial propellers with pitched, plane blades:
Economic for small and medium volume agitators

The flow generated by this type of mixing element is predominately axial with a radial element. It is used for suspending or for heat transfer in a non-viscous medium. The pitched propeller blades operate at a speed low and generate a higher level of turbulence. The basic mixing elements are often sufficient for simple applications.



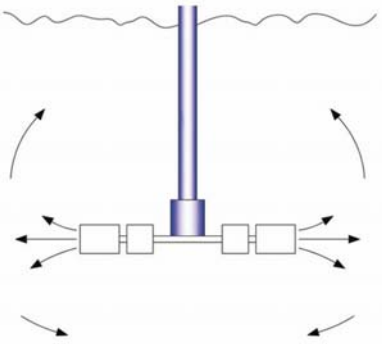
Propeller with "SABER" profile blades:
Blending with a minimum of energy consumption

The flow created is predominately axial. These profiles are ideal for a large number of applications, in particular for those needing high speeds and low energy consumption, liquid-solid suspensions for example. They operate at low speed with a very week or moderate level of turbulence.



Flat blade propellers:
Process mixing

They are well adapted for gas-liquid transfer as well as transfer in a non- viscous medium. The flow created is radial and with high turbulence.



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