DS 34-401-
25 August 2003

# Data Sheet for Agitators - metric

| | | | |
|---|---|---|---|
| 1 | Facility Location: | | |
| 2 | Unit: | 3 | |
| 4 | | 5 | Project/Job No.: |
| 6 | Contractor: | 7 | PO No.: _____ By Co.: |
| 8 | Agitator Manufacturer: | 9 | Model No.: |
| 10 | P&ID Number | 11 | Serial Number |
| 12 | | | |

**PROCESS DESIGN REQUIREMENTS**

13 Mixing process includes (See Tutorial Note 2):
14 ☐ All liquids ☐ Liquid-gas ☐ Liquid-solid ☐ Liquid-gas-solid ☐ All solids

15 Agitator function
16

17 Time to accomplish function
18

19 How results are to be measured (See Tutorial Note 1)
20

21 Special requirements (e.g. start-up)
22

**PROPERTIES OF CONSTITUENTS**

23 **Liquids**

| | Name | Weight (%) | Specific Gravity | Viscosity (cP @ ºC) | Shear Rate | |
|---|---|---|---|---|---|---|
| 24 | | | | | | |
| 25 | | | | | | |
| 26 | | | | | | |
| 27 | | | | | | |

28 **Solids**

| | Name | Weight (%) | Specific Gravity | Settling Velocity (m/s) | Shape | Sieve Analysis |
|---|---|---|---|---|---|---|
| 29 | | | | | | |
| 30 | | | | | | |
| 31 | | | | | | |
| 32 | | | | | | |

33 **Gases**

| | Name | Flow Rate ($m^3$/h) | Pressure (barg) | Temperature (ºC) | Foams | |
|---|---|---|---|---|---|---|
| 34 | | | | | | |
| 35 | | | | | | |
| 36 | | | | | | |
| 37 | | | | | | |

**PROCESS TYPE**

38 ☐ Batch Volume ($m^3$) Minimum Normal Maximum
39 ☐ Continuous Flow Rate ($m^3$/h)

**OPERATION**

40 Mixing Intensity ☐ Violent ☐ Medium ☐ Mild kW/$m^3$
41 Agitator is operated during: ☐ Filling ☐ Emptying
42 Minimum liquid level for operation m
43 Primary pumping capacity without induced flow $m^3$/h

| | NO | DATE | REVISION | BY | APP. |
|---|---|---|---|---|---|
| 44 | | | | | |
| 45 | | | | | |
| 46 | | | | | |
| 47 | | | | | |

Documents
Document Sharing Hub

Full document details: BP DS-34-401 2003

# Data Sheet for Agitators - metric - page 2

| | | | |
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**TANK DETAILS**

| | | Design | Operating | | |
|---|---|---|---|---|---|
| | | | Normal | Minimum | Maximum |
| 13 | Pressure (barg) | | | | |
| 14 | Temperature (ºC) | | | | |
| 15 | Capacity ($m^3$) | | | | |
| 16 | | | | | |
| | | | **Nozzles** | | |
| | Nozzle Number | Size | Pressure Rating | Description | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | **Baffles** | | |
| 22 | Number | Width (mm) | Thickness (mm) | Length (mm) | |
| 23 | | | | | |
| 24 | | | | | |

**MECHANICAL DESIGN**

**Rotating Assembly**

| | Impeller Number | Impeller Type | Number of Blades | Power (kW) | Diameter (m) |
|---|---|---|---|---|---|
| 25 | | | | | |
| 26 | | | | | |
| 27 | | | | | |
| 28 | | | | | |

| | | | | |
|---|---|---|---|---|
| 29 | Speed (rpm) | Critical Speed (rpm) | | |
| 30 | Direction of Rotation (viewed from drive end): | | ☐ CW ☐ CCW | |
| 31 | Steady Bearing ☐ Yes ☐ No | Type | Diameter (mm) | |
| 32 | Lubricant | Type | Pressure (barg) | Temperature (ºC) |
| 33 | Shaft Diameter at Seal (mm) | | Stabilising Device ☐ Yes ☐ No | |
| 34 | Tank Entry ☐ Top ☐ Bottom | | | |

**MATERIALS OF CONSTRUCTION**

| | Item | Material Specification | Item | Material Specification |
|---|---|---|---|---|
| 35 | Tank | | | |
| 36 | Rotor | | Bearing bushing | |
| 37 | Impellers | | Gland packing (if supplied) | |
| 38 | Shaft Sleeves | | Mech. seal (component) | |
| 39 | Hubs | | | |
| 40 | Mechanical seal housing | | | |
| 41 | Coupling | | Other | |
| 42 | Bolting | | | |
| 43 | Gaskets | | | |

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