SINCE 1984

CHEMFILT

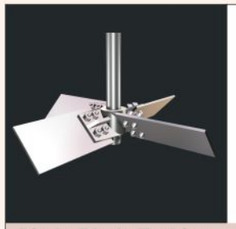
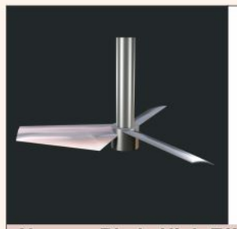
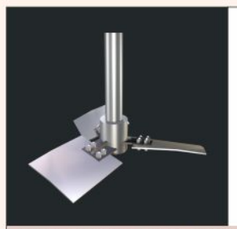
D&B D-U-N-S® Number: 92-069-0745

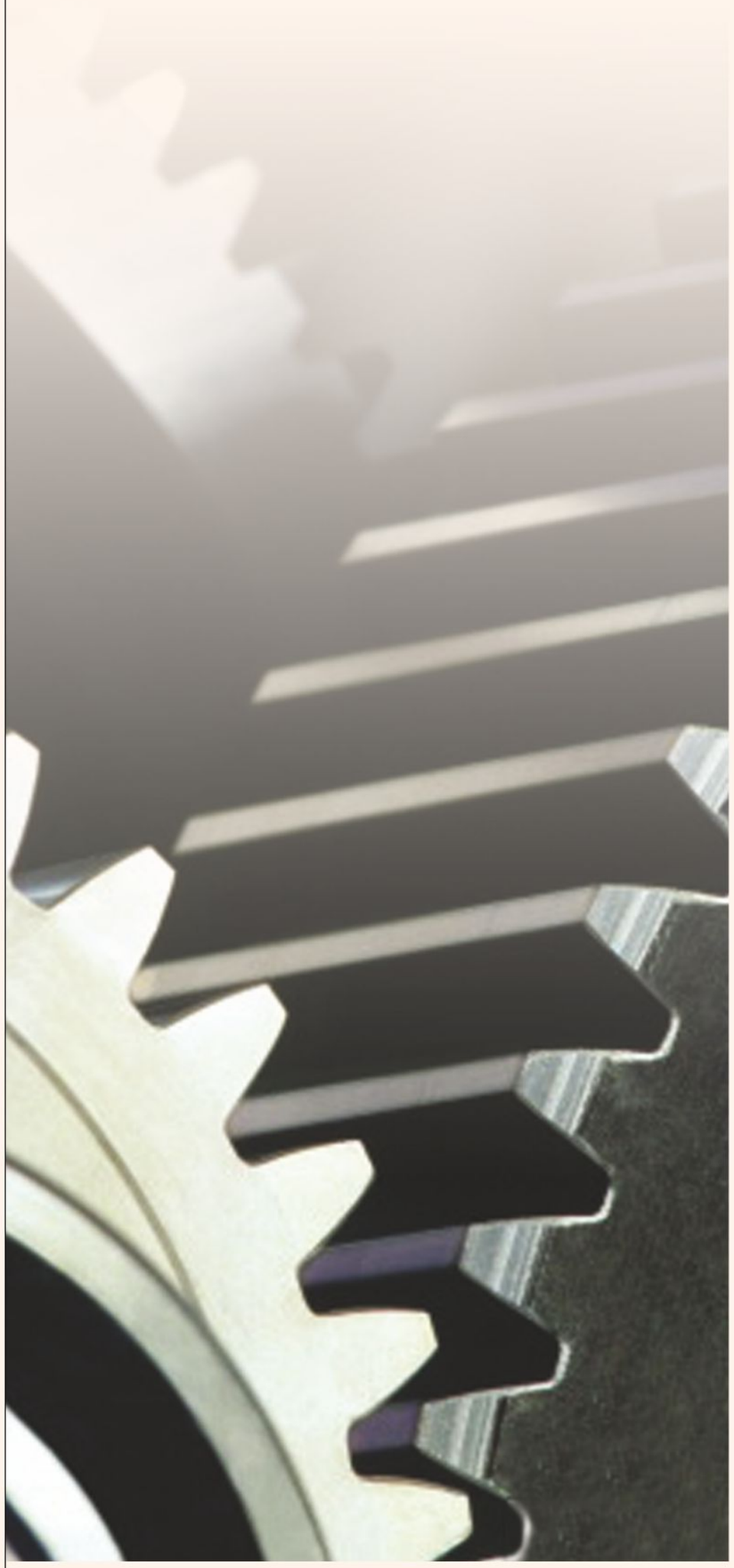
Near new water tank of G.I.D.C., Phase-IV,
Next to Atlanta Electricals Ltd.
Dist - Anand, Gujarat, India
Tele. : +91 - 2692-236846 (4 lines)
Fax : +91 - 2692-236850
Email : info@chemfilt.com
www.chemfilt.com

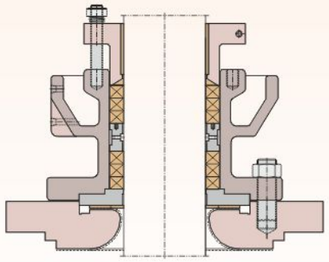
Agitator Drives and Mixers

CHEMFILT

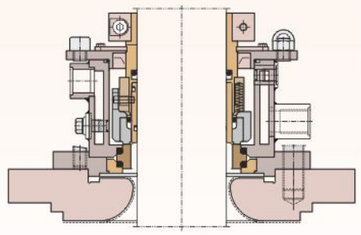
SINCE 1985

Agitator	Flow Pattern	Peripheral Speed (m/s)	Range of Viscosity (mPa s)	Application								
				1	2	3	4	5	5A	5B(i)	5B(ii)	5C
 Propeller		3-10	5,000	✓	✓				✓			
 Straight Blade Turbine		2-10	8,000	✓		✓	✓		✓	✓		
 Narrow Blade Turbine		5-20	15,000			✓			✓			✓
 Pitch Blade Turbine		5-15	10,000	✓	✓		✓		✓			
 Narrow Blade High Efficiency Impeller		2-10	10,000	✓	✓	✓	✓					
 Wide Blade High Efficiency Impeller		2-10	10,000	✓	✓					✓		

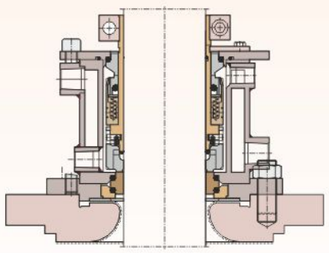




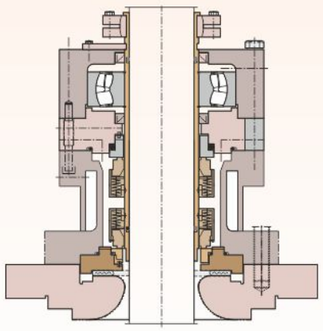
STUFFING BOX



SINGLE MECHANICAL SEAL



DOUBLE MECHANICAL SEAL



DOUBLE MECHANICAL SEAL WITH BEARING

Sleek, Rugged & Efficient - Agitator Drives & Mixers

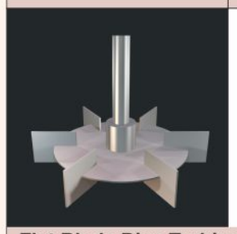
What appears to be a simple thing at first sight is actually a combination of different variables. While designing agitator-drives; besides considering mounting; angle, weight, tank type and size, batch size, agitator type, revolution per minute, flow pattern and power; we need to consider several other factors like what is to be processed, its sp. gravity and viscosity, purpose of mixing, cycle time, degree of agitation required and whether it's a continuous or a batch process. Besides this, it's important to select right material of construction for all wetted parts like shafts, flanges, stuffing box, mechanical seal and agitators. Our expertise and experience will result into the best possible solution for our customers.

CHEMFILTs' agitator drives are built as modular versatile units and give end users a wide range of combinations for different applications. Our agitator-drives are constructed with strengthened output shaft bearings to take excessive axial and radial forces. The agitator drive units are computer designed and produced under strict supervision of our experienced engineers. The drive speed reducer is accurately built with top quality materials, i.e. gears are case hardened and hardened before profile grinding, hardened and tempered 38NiCrMo4 steel output shafts and grey cast iron UNI ISO 1083 casings are used. The gear casings, except machine matching faces, inner and outer surfaces are powder coated. The split couplings are high resistance metal alloys with a recess to house an agitator hanger enables ease of maintenance of bearings and seals without replacing gear and agitator. A custom designed cartridge mechanical seal is convenient to fit into the assembly and offers exceptionally long trouble free operation.

Approximately 80% of the mixing applications include the flow-sensitive mixing and that is where our expertise is called for. The commercially available impellers partially serve the purpose of agitation, but the difficulty arises while selecting the best agitator for your process need from those available in the market. Here, we as manufacturer provide our customers with expert guidance.

COMPARISON OF CHEMFILT AGITATOR DRIVES WITH CONVENTIONAL DRIVES

Benefit Areas	Helical Gear Drive	Worm Reduction Gear Drive
Power consumption	Low	High
Transmission efficiency	High (90%)	Low (65%)
Alignment	Factory built, hence no alignment required	Required
Operation	Clean	Dirty (Belt wear & tear)
Weight	Low	High
Maintenance	Convenient	Difficult
Spares inventory	Low	High
Lubrication	Seldom recharging	Frequent recharging
Noise level	75 db (Approx)	65 db (Approx)
Configuration	In line, hence does not foul with nozzles	Fouls with nozzles
Other benefits	Suitable for GMP models	Not suitable

Agitator	Flow Pattern	Peripheral Speed (m/s)	Range of Viscosity (mPa s)	Application								
				1	2	3	4	5	5A	5B(i)	5B(ii)	5C
 Flat Blade Disc Turbine Mixer		3-7	10,000			✓			✓	✓		
 Concave Blade Disc Turbine Mixer		3-7	10,000	✓	✓	✓					✓	
 Toothed Disc		10-25	50,000	✓				✓				
 Anchor		0.5-1.5	50,000	✓	✓		✓					
 Helical Ribbon Impeller		0.5-1.5	>50,000	✓			✓					

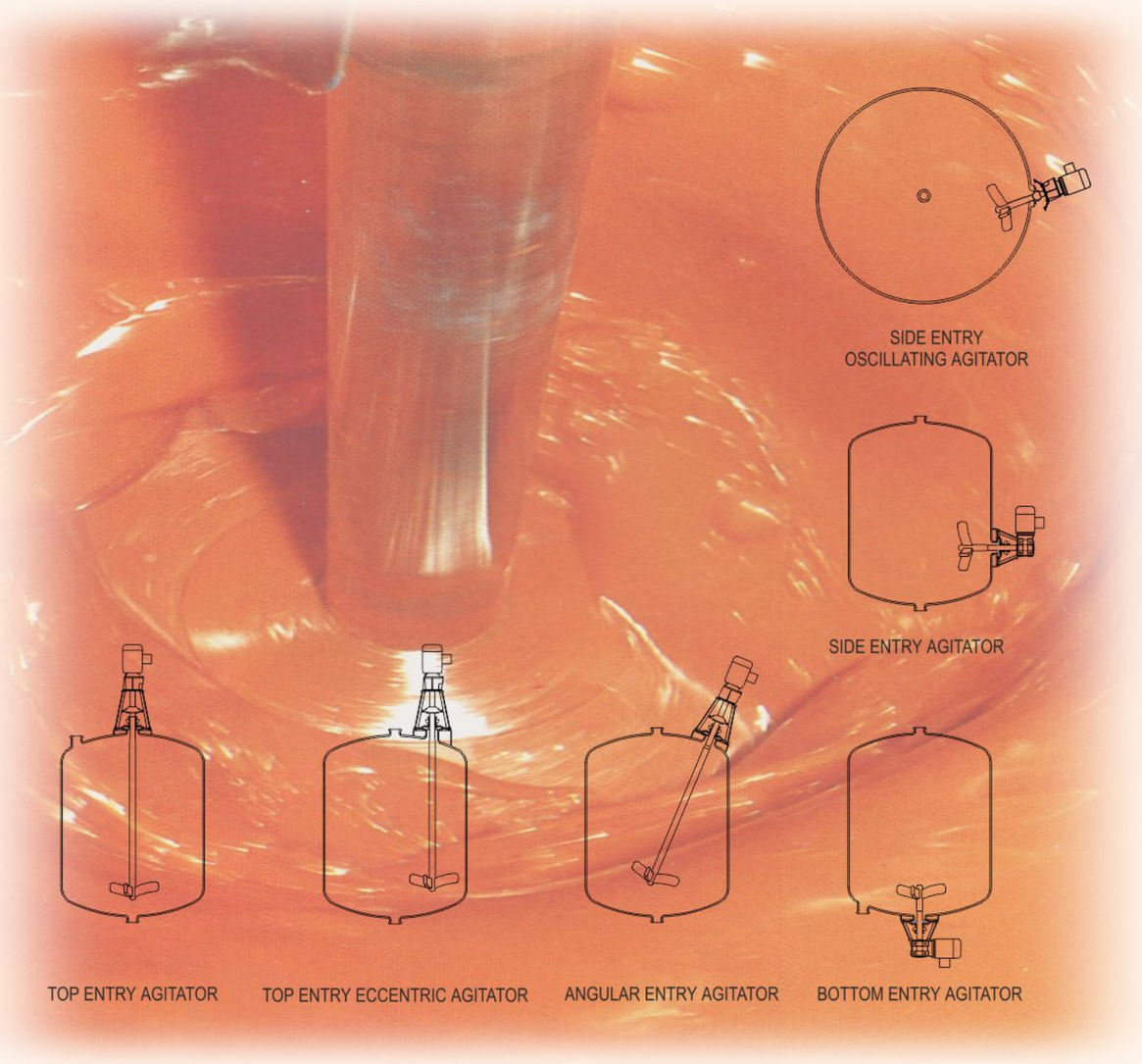
1) Homogenizing/Blending

2) Solids Suspension

3) Aeration

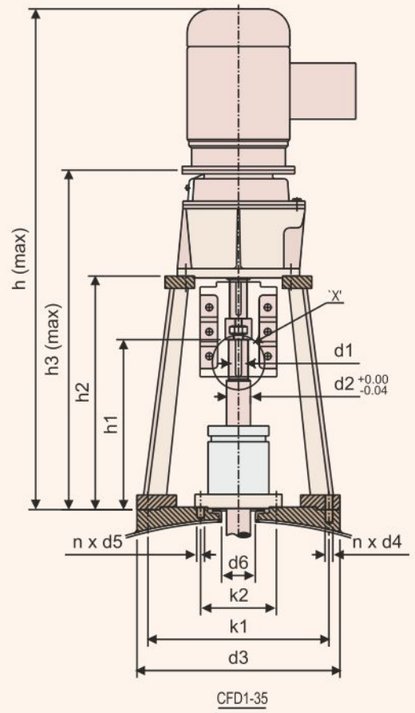
4) Heat Transfer

5) Dispersion
(A) Liquid Liquid Dispersion
(B) Liquid Gas Dispersion
i) Low And Intermediate Gas Flow
ii) Intermediate And High Gas Flow
(C) Solid Liquid Dispersion

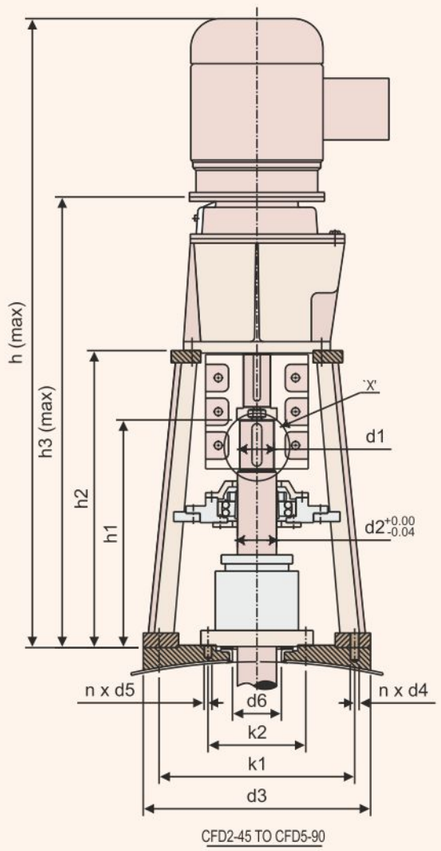


CHEMFILT DRIVE SELECTION CHART

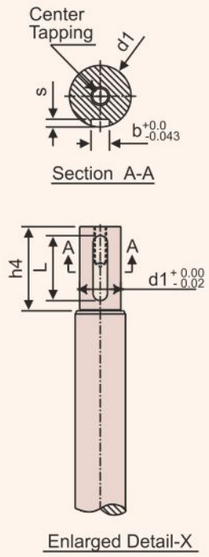
RPM / HP	100	50	37.5	30	25
2	CFD1-35	CFD1-35	CFD1-35	CFD-35	CFD-35
3	CFD2-45	CFD2-45	CFD2-45	CFD-45	CFD-55
5	CFD3-55	CFD3-55	CFD3-55	CFD-60	CFD-60
7.5	CFD4-60	CFD4-60	CFD4-60	CFD-60	CFD-60
10	CFD4-60	CFD4-60	CFD4-60	CFD-80	CFD-80
15	CFD5-80	CFD5-80	CFD5-80	CFD-80	CFD-90
20	CFD5-80	CFD5-80	CFD5-80	CFD-90	CFD-90
25	CFD5-80	CFD5-80	CFD5-90	CFD-90	



CFD1-35



CFD2-45 TO CFD5-90



DIMENSIONS

MODEL	d1	d2	d3	k1	n x d4	k2	n x d5	d6	h1
CFD 1-35	40	50	415	370	6 x M20	155	4 x M16	70	348
CFD 2-45	50	60	465	410	6 x M20	170	4 x M16	80	355
CFD 3-55	50 / 70	60 / 80	465	410	6 x M20	170 / 200	4 x M16 / 8 x M16	80 / 100	466
CFD 4-60	70 / 90	80 / 100	690	620	9 x M24	200 / 270	8 x M16	100 / 120	562
CFD 5-80	90 / 110	100 / 125	850	780	12 x M24	270 / 295	8 x M16 / 8 x M20	120 / 145	643
CFD 5-80/90	110 / 120	125 / 140	850	780	12 x M24	295 / 350	8 x M20 / 12 x M20	145 / 160	643

MODEL	h2	h3	h	h4	Key-way size			Key Size	Center Tapping
					L	b	s		
CFD1-35	454	671	1026	82	62	12	5.0	12 x 8	M12 x 2.0P x 35 L.
CFD2-45	480	732	1097	82	62	14	5.5	14 x 9	M20 x 2.5P x 40 L.
CFD3-55	608	928	1358	100	80	14 / 20	5.5 / 7.5	14x 9 / 20x12	M20 x 2.5P x 40 L.
CFD4-60	720	1087	1607	130	105	20 / 25	7.5 / 9.0	20x12 / 25x14	M20 x 2.5P x 40 L.
CFD5-80	828	1278	1860	165	140	25 / 28	9.0 / 10	25x14 / 28x16	M20 x 2.5P x 40 L.
CFD5-80/90	828	1333	1971	165	140	28	10	28 x 16	M20 x 2.5P x 40 L.