

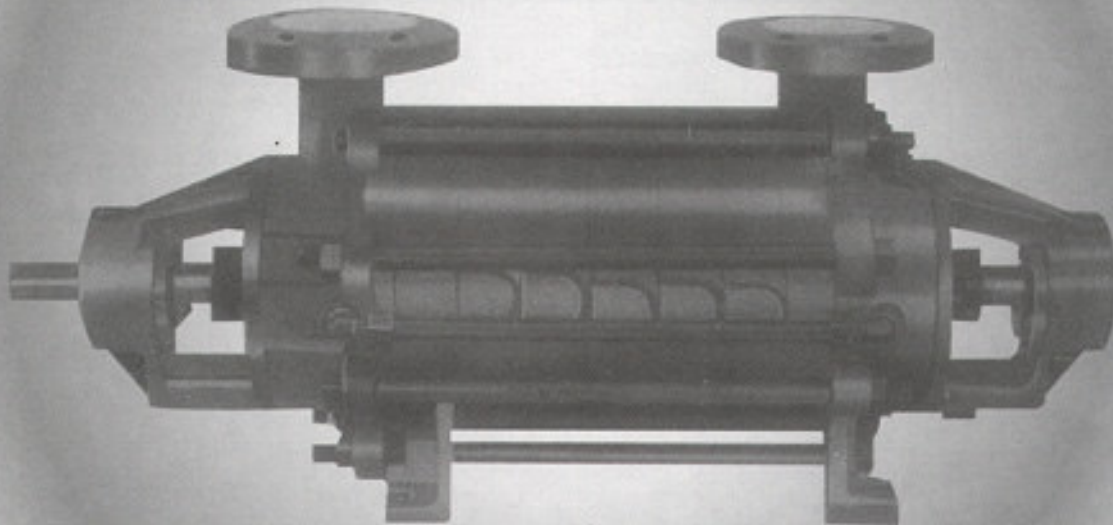


## New Era Engineers and Traders

No. 1/11 D, Errabalu Chetty St, Parrys, Chennai - 600001.

Phone : +91-44-25341238 or 42053759, Fax : +91-44-2534-0578.

Email : neecomotor@airtelbroadband.in



# PN

Multistage Boiler Feed Pumps

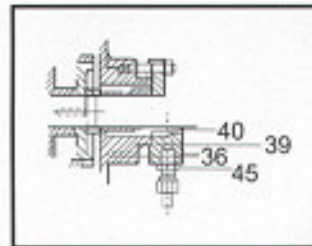
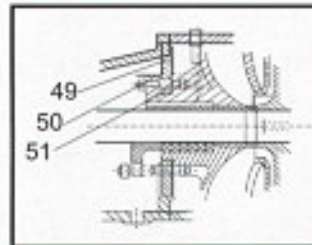
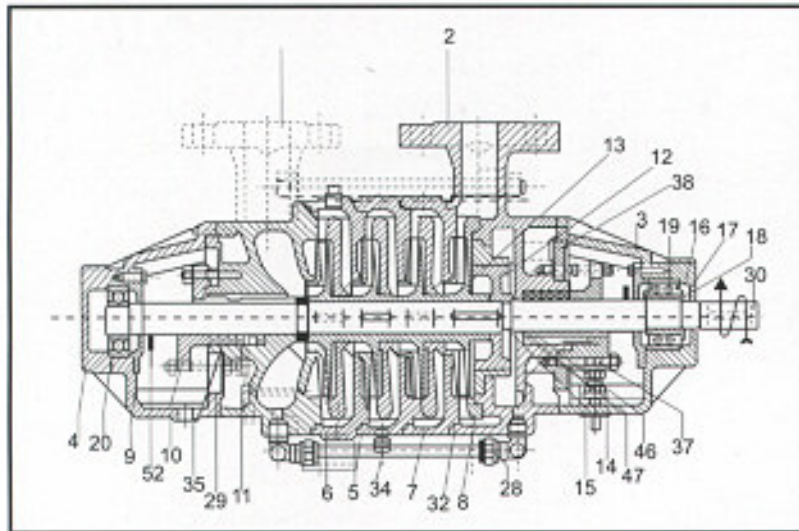
## **AURO PUMPS PVT. LTD.**

An ISO 9001-2000  
(Established in 1984)

IN TECHNICAL COLLABORATION WITH POMPE VERGANI S.p.A. ITALY

# PN

## Multistage Boiler Feed Pumps



Capacity : upto 30m<sup>3</sup>/hr.  
 Total Head : upto 430 mtrs.  
 Max. Press. : upto 50 bars  
 Max. Temp. : upto 160°C

### PART LIST

- |                                    |                                  |
|------------------------------------|----------------------------------|
| 1. Suction Casing                  | 19. Ball Bearing (Coupling Side) |
| 2. Discharge Casing                | 20. Ball Bearing                 |
| 3. Bearing Housing (Coupling Side) | 28. End Connection               |
| 4. Bearing Housing                 | 29. Gasket                       |
| 5. Impeller                        | 30. Shaft                        |
| 6. Diffuser Ring (with Foot)       | 32. 'O' Ring                     |
| 7. Difuser Ring                    | 34. Balancing Pipe               |
| 8. Last vaned difuser ring         | 35. Packing                      |
| 9. Support Cover                   | 36. Mechanical Seal Flange       |
| 10. Packing Gland                  | 37. Mechanical Seal Spacer       |
| 11. Lantern Ring                   | 38. Cooling Flange               |
| 12. Balancing Drum                 | 39. Gasket                       |
| 13. Balancing Drum Housing         | 40. Mechanical Seal              |
| 14. Split Locking Ring             | 45. "L" Connection               |
| 15. Ring                           | 46. 'O' Ring                     |
| 16. Spacer Ring                    | 47. "VCE" Dowell                 |
| 17. Shoulder Ring                  | 49. 'O' Ring                     |
| 18. Safety Ring                    | 50. Gasket                       |
|                                    | 51. Gasket                       |
|                                    | 52. Water Shield                 |

### DESCRIPTION

Pumps are horizontal, multistage, radially split, connected through spacers. All rotating parts are supported by ball bearings which are external to the casing of the pump - to ensure sound and reliable operations under heavy duty. Axial thrust is balanced by balancing drum device. Discharge nozzle is radial and upward oriented while suction nozzle can be placed radially or sideways. Flanges are according to UNI 2223 PN 25 or according to ANSI standards (on request).

### M.O.C.

Available in CI, Bronze, CF-8M and CF-3M

### APPLICATIONS

General purpose pumps for low capacities & high heads

Boiler feed for high and medium pressure boilers with both hot & superheated water (160°C)

Water supply system

Booster service and fire fighting systems

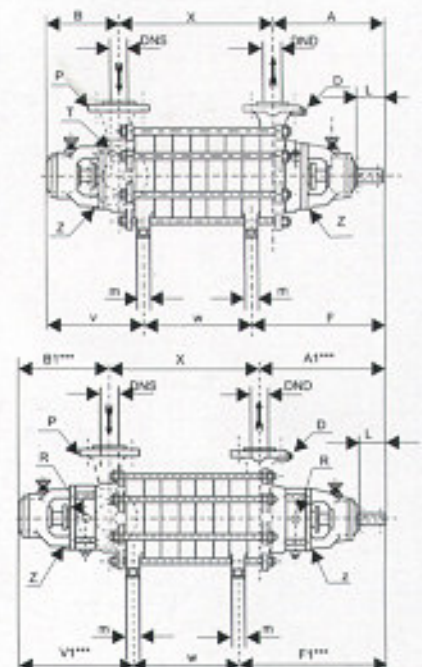
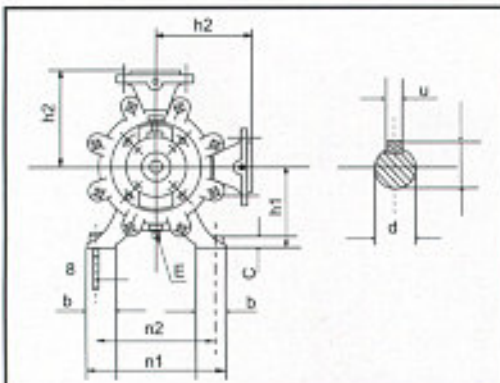
Handling foamy liquids

Transfer of condensate

- D - For pressure gauge  
 E-Z - For drain  
 P - For vacuum gauge  
 R - 4 nos. For Cooling connections  
 I - 6 nos. For cooling & balancing



NO. OF STAGES	PN-32-12		PN-32-16		PN-40-16 **	
	X	W	X	W	X	W
2	104	93	106.5	106.5	-	-
3	144	133	141.5	158.5	175	-
4	184	173	176.5	193.5	225	100
5	224	213	211.5	228.5	275	150
6	264	253	246.5	263.5	325	200
7	304	293	281.5	298.5	375	250
8	344	333	316.5	333.5	425	300
9	384	373	351.5	368.5	475	350
10	424	413	386.5	403.5	525	400
11	464	453	-	-	575	450
12	504	493	-	-	625	500
13	544	533	-	-	675	550
14	584	573	-	-	725	600



PUMP TYPE	PUMP										FEET						SHAFT			FLANGE		
	A	B	V	F	A1	B1	V1	F1	h1	h2	b	m	n1	n2	c	s	φd	i	u	t	φ DNS	φ DND
PN 32-12	218	186.5	156.5	258.5	-	-	-	-	132	170	50	45	220	170	15	M12	24 K6	50	8	27	40	32
PN 32-16	222.5	151	141	215.5	-	-	-	-	150	180	50	55	250	205	15	M12	24 K6	50	8	27	40	32
PN 40-16	311.5	189	257.5	368	364	242	310.5	420.5	168	200	60	40	300	265	30	M12	30 J6	80	8	33	50	40

### SELECTION CHARTS

PUMP TYPE	CAPACITY IN m <sup>3</sup> /hr.																			
	2		3		4		5		6		7		8		9		10		12	
	H	HP	H	HP	H	HP	H	HP	H	HP	H	HP	H	HP	H	HP	H	HP	H	HP
PN 32-12/2	49	1.7	49	1.88	48.6	2.04	47.7	2.2	46.6	2.32	45.5	2.42	43.6	2.6	41.8	2.72	39.8	2.84	35.2	3.04
PN 32-12/3	73.5	2.55	73.5	2.82	72.9	3.06	71.55	3.3	69.9	3.5	68.1	3.63	65.4	3.9	62.7	4.1	59.7	4.26	52.8	4.6
PN 32-12/4	96	3.4	96	3.76	97.2	4.08	95.4	4.4	93.2	4.65	90.8	4.85	87.2	5.2	83.5	5.45	79.6	5.68	70	6.1
PN 32-12/5	122.5	4.25	122.5	4.7	121.5	5.1	119.25	5.5	116.5	5.8	113.5	6.05	109	6.5	104	6.9	99.5	7.1	87	7.9
ON 32-12/6	147	5.1	147	5.64	145.8	6.12	143.1	6.6	139.8	7	136.2	7.26	130.8	7.8	125	8.4	119.4	8.52	104	9.5
PN 32-12/7	171.5	5.95	171.5	6.58	170.1	7.14	166.95	7.7	163	8.1	158.9	8.47	152.6	9.1	146	9.9	139.3	9.94	122	11
PN 32-12/8	196	6.8	196	7.52	194.4	8.16	190.8	8.8	186.4	9.3	181.6	9.68	174.4	10.4	166.5	11.5	159.2	11.36	139	12.9
PN 32-12/9	220.5	7.65	220.5	8.46	218.7	9.18	214.65	9.9	200.7	10.5	204.3	10.89	196.2	11.7	187	12.8	179.1	12.78	157	14.2
PN 32-12/10	245	8.5	245	9.4	243	10.2	238.5	11	233	11.6	227	12.1	218	13	208	14	199	14.2	174	15.7
PN 32-12/11	269.5	9.35	269.5	10.34	267.3	11.22	262.25	12.1	256	12.8	249.7	13.31	239.8	14.3	228	15.5	218.9	15.62	191	17.5
PN 32-12/12	294	10.2	294	11.28	291.6	12.24	286.2	13.2	279.5	14	272.4	14.52	261.6	15.6	249	16.8	238.8	17.04	209	18.6
PN 32-12/13	318.5	11.05	318.5	12.22	315.9	13.26	310.05	14.3	305	15.1	295.1	15.73	283.4	16.9	269	18	258.7	18.46	226	20.2
PN 32-12/14	343	11.9	343	13.16	340.2	14.28	333.9	15.4	326	16.3	317.8	16.94	305.2	18.2	290	19.1	278.6	18.88	244	22

PUMP TYPE	CAPACITY IN m <sup>3</sup> /hr.															
	4		5		6		7		8		9		10		12	
	H	HP	H	HP	H	HP	H	HP	H	HP	H	HP	H	HP	H	HP
PN 32-16/3	99.6	5.4	97.5	5.76	95.1	6	92.1	6.45	88.2	6.6	83.1	6.9	77.4	7.2	63	7.8
PN 32-16/4	132.8	7.2	130	7.68	128.8	8	122.8	8.6	117.6	8.8	110.8	9.2	103.2	9.6	84	10.4
PN 32-16/5	166	9	162.5	9.6	158.5	10	153.5	10.75	147	11	138.5	11.5	129	12	105	13
PN 32-16/6	199.2	10.8	195	11.52	190.2	12	184.2	12.9	176.4	13.2	166.2	13.8	154.8	14.4	126	15.6
ON 32-16/7	232.4	12.6	227.5	13.44	221.5	14	214.9	15.05	205.8	15.4	193.9	16.1	180.6	16.8	147	18.2
PN 32-16/8	265.6	14.4	260	15.36	253.6	16	245.6	17.2	235.2	17.6	221.6	18.4	206.4	19.2	168	20.8
PN 32-16/9	298.8	16.2	292.5	17.28	285.3	18	276.3	19.35	264.6	19.8	249.3	20.7	232.2	21.6	189	23.4
PN 32-16/10	332	18	325	19.2	317	20	307	21.5	294	22	277	23	258	24	210	26

PUMP TYPE	CAPACITY IN m <sup>3</sup> /hr.															
	9		12		15		18		21		24		27		30	
	H	HP	H	HP	H	HP	H	HP	H	HP	H	HP	H	HP	H	HP
PN 40-16/3	105	8.1	102.5	8.7	98.4	9.45	93	10.2	86.4	10.8	79.2	11.7	70.8	12.3	61.8	13.2
PN 40-16/4	140	10.8	136.7	11.6	131.2	12.6	124	13.6	115.2	14.4	105.5	15.6	94.4	16.4	82.4	17.6
PN 40-16/5	175	13.5	171	14.5	165	15.8	155	17	144	18	132	19.5	118	20.5	103	22
PN 40-16/6	210	16.2	205	17.4	196.5	19	185.5	20.5	172.5	22	158	23.5	141.5	24.6	123	26.5
ON 40-16/7	245	19	239	20.3	229	22.1	216.5	24	201	26	184	27.5	165	29	144	31
PN 40-16/8	280	21.8	273	23.5	261.5	25.5	247	27.5	229.5	29.5	210	31.5	188.5	33	164.5	35.5
PN 40-16/9	315	24.5	307	26.5	294.5	28.7	278	31	258	33	236	35.5	212	37.5	185	40
PN 40-16/10	350	27.5	341	29.5	327	32	308.5	35	286	37	262	40	235.5	42	206	45
PN 40-16/11	385	30.2	376	32.5	360	35.2	339	38.5	314.5	40.5	288	44	259	46	226	49
PN 40-16/12	420	33	410	35.5	392	38.5	370	42	343	44.5	314	48	282	51	246	54

HP shows power input to pump, suitable motor to be selected