

Nik-San's pumps have a proven continuous heavy- duty performance record indicating long intervals between servicing. This assures you of the best return on your investment.

# **TRIPLEX DESIGN**

One of the most cost-efficient ways to ensure extra long life for your high pressure system is to use a Nik-San pump with its three- cylinders design. This triplex design gives you much smoother flow (approximately 1/7th the pressure variations of comparable two – cylinder pumps) and minimizes the possibility of system failure due to excessive pulsation.

#### **BEARING**

Antifriction steel-tapered roller bearing provide extended bearing life.

#### **PLUNGER**

The triplex plunger pump perform smoothly and quietly. The natural lubricity of the pumped fluid cools and lubricates the seals. The hardened, polished ceramic coated plunger provide extremely durable wear surfaces, abrasion resistance and maximum seal life.

#### **GLAND PACKING**

The stuffing box assemblies are individually bolted to the fluid cylinder for easy accessibility, for disassembly and assembly. Reduced maintenance costs and downtime.

#### VALVE ASSEMBLY

All Valve assemblies are completely independent of and are clamped between manifolds and fluid cylinder. Easy valve inspection and replacement without ant clean-up or rematching of mating components.

#### **POWER END**

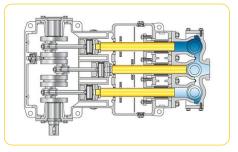
- Pressure Imbrication provided by externally mounted lub oil pump driven directly off crank shaft end opposite main drive end, or separate motor driven. Recommended for pump speed below 165 rpm.
- Overhead motor mounting on pump frame complete with belt adjustment jack-screws.

# **POWER END MECHANISM**

For each Nik-San pump, the POWER END engineered out of selected materials and it is designed for the rated horse power.

#### **POWER FRAME**

Power frame is totally enclosed. Dust and oil tight enclosure eliminating contamination from the outside elements. Reduced maintenance cost and increased reliability.



# **CONNECTING RODS**

Accurately machine and honed for longer life I- section design for rigidity and light weight. Split bolted marine type crank-pin end for any assembly and disassembly. Refle-drilled oil passage.

# **CROSS HEAD**

Fully cylindrical crossheads and guides utilize maximum possible bearing area. Less waste through greater disbursement of bearing loads. Assures greater reliability with low replacement costs.



Capacity: up to 1000 L/min.

Pressure: up to 1000 Kg/cm<sup>2</sup>

**Temperature:** up to 3000° C

#### **CRANK SHAFT**

Forged hardened and ground crankshaft provides unmatched strength and surface hardness for long life.

# **LUBRICATION**

Splash type lubrication system for all power and bearing contained within sealed chamber.

# MATERIAL OF CONSTRUCTION FOR LIQUID CONTACT PARTS:

- AISI-304, AISI-316.
- Alloy-20 Hastelloy- 'B' or 'C
- Parts consisting of special materials can specially manufactured against specific needs.
- Available in ceramic coated or Hard chrome plated or calumny coating plungers.
- Gland packing flushing, cooling lubrication can also be provided against specific orders.

# ACCESSORIES

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- Back Pressure Valve H.P. hose Pipe
  - Flanges
    - Pulsation dumpers
- Suction tankSuction strainer

Nozzle

Trolley / skid

- Pressure gauge
- Pressure relief valve
- V-belt drives or separate gear reducers with couplings and guards are available in a wide range of popular ratios.

Variator

• Jetting Gun

Non return valve

• Ele. Motor / Speed

• Easily removable steel or plexiglass covers to protect stuffing box compartment in outdoor or dirty indoor locations.

# **FLUID END**

- Pump mounted mechanical lubricator for plunger packing lubrication recommended for higher pressure ranges when non lubricating type fluids are being precessed.
- Spring loaded stuffing box packaging should be supplied to provide constant plunger sealing pressure, thus eliminating manual packing adjustments.
- Special suction and discharge manifold connections are available to meet special piping and installation requirements.
- Suction air chamber for dampening intake pulsations
- Discharge pulsation dampner
- Discharge safety relief valves.





# **GIVES YOU MORE FLEXIBILITY**

• MITTAL'S Pumps line -up gives more options than any other available. You can get:

#### DRIVES

- V Belt pulley with electronic motor.
- Direct drive with electric motor/engine/generator.

#### REGULATION

- Simplex / Duplex / Triplex / Quintuplex.
- Skid-Mounted package or bare unit with wide range of optional accessories.
- Maximum part inter-changablity.
- Maximum inter-changablity of parts between standard models, models provides added advantage to the customer for maintenance & spare part availability & stocking.





MODEL	PLUNGER DIAMETER (mm)	DISCHARG E PRESURE			FLOW RA	TE IN LPM A		STROKE PE					
-					FLOW RATE IN LPM AT STANDARD STROKE PER MINUTE								
-		(Kg/cm <sup>2</sup> )	250	300	350	400	450	500	550	600			
	15	105	1.05	2.1	3.17	4.2	5.25	6.3	7.35	8.4			
MHT-75	20	88	1.9	3.77	6.65	7.53	9.37	11.3	13.19	15.13			
	25	55	2.94	5.87	8.8	11.73	14.67	17.6	20.53	23.47			
	30	30	4.23	8.47	12.7	16.93	21.33	25.4	29.63	33.87			
MHT-100	(mm)	(Kg/cm²)	250	300	350	400	450	500	550	600	650		
	14	350	4	5	6	7	8	9	9.5	10	11		
	20	240	7	8	10	11	13	14	15	10	11		
	25	150	10	12	10	16	13	20	22	25	27		
	23	105	15	12	21	24	28	30	34	37	40		
	30	70	13	22	21	24	32	35	40	45	40		
MHT-2200	(mm)	(Kg/cm <sup>2</sup> )	250	300	350	400	450	500	550	600	650		
	15	620	5	6	7	8	9	10	11	12	13		
	19	400	8	10	11	13	15	17	18	20	22		
	23	270	10	12	15	18	20	24	27	28	30		
	28	170	18	22	26	29	33	37	40	44	48		
-	32	125	24	27	30	35	40	45	50	55	60		
	36	100	30	35	40	45	50	55	65	70	78		
-	40	80	35	45	50	55	65	70	80	85			
	44	70	40	50	60	70	80	90	98				
MHT-2900	(mm)	(Kg/cm²)	250	300	350	400	450	500	550	600	650		
	15	650	7	8	9	11	12	14	15	16	17		
	19	600	10	12	14	17	18	21	23	25	28		
	22	450	12	17	20	23	25	28	30	32	35		
	26	330	20	25	28	30	35	40	44	48	52		
	30	250	25	30	35	40	45	50	60	65	70		
	36	150	38	45	55	62	70	78	85	92	100		
	40	120	48	58	68	78	86	95	105	115	125		
	44	105	58	70	82	92	105	117	129	142	154		
	50	80	76	90	106	122	137	152					
	54	70	88	106	124	142	159	178					
	58	60	102	122	143	162	185	205					
-	(mm)	(Kg/cm²)	250	300	350	400	450	500	550				
	22	600	15	20	22	25	29	34	36				
	26	425	22	28	32	38	42	48	52				
	30	330	30	38	45	50	68	62	70				
	34	250	40	48	58	65	74	80	90				
-	38	200	50	62	72	82	92	103	113				
MHT-4100	50	110	90	105	125	142	160	179	115				
-	54	105	105	105	147	168	190	211					
-	58	90	120	144	169	193	219	242					
	64	75	148	174	205	236	265						
-	68	64	166	200	234	268	300						
	72	60	186	200	262	300	338						
			250	300	350	400	450	500					
	(mm) 26	(Kg/cm <sup>2</sup> ) 600	36	42	50	58	<b>450</b> 65	74					
	30	450	50	58	68	78	88	98					
-	30	350		76									
MHT-5100	34	280	62 80	95	89 110	102 126	115 142	125 158					
	42		96										
		230		116	136	156	176	195					
	46	200	116	140	164	186	212	235					
	50	168	140	165	194	222	252	276					
	54	144	160	190	225	260	290	325					
	58	125	185	224	260	300	336	375					
-		109	214	255	300	342	385	428					
-	62												
-	66	96	242	290	340	388							
-					340 380 425	388 435 489							

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