



MITTAL 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 MITTAL pimp 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**

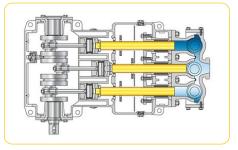
- Pressure Imbrication provided by externally mounted lub oil pump driven directly off crank shaft end opposite main drive end, or separate motor driven. Recommended for pump speed below 165 rpm.
- Overhead motor mounting on pump frame complete with belt adjustment jack-screws.

#### **POWER END MECHANISM**

For each MITTAL 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
  - Trolley/skid Flanges
    - Pulsation dumpers
- Suction tankSuction strainer
- 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**

Nozzle

- 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.







				C.	APACITY SEL	ECTION TAB	LE				
MODEL	PLUNGER DIAMETER (mm)	DISCHARG E PRESURE (Kg/cm <sup>2</sup> )	FLOW RATE IN LPM AT STANDARD STROKE PER MINUTE								
			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	
	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	18
	25	150	10	12	10	16	13	20	22	25	27
	28	105	15	18	21	24	28	30	34	37	40
	30	70	13	22	25	24	32	35	40	45	48
	(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
MHT-2200	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/cm <sup>2</sup> )	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			
MHT-4100	(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		
	50	110	90	105	125	142	160	179			
	54	105	105	125	147	168	190	211			
	58	90	120	144	169	193	219	242			
			148	174	205	236	265				
	64	75									
	64	75 64	166	200	234	268	300				
			166 186	200 224	234 262	268 300	300 338				
	68 72	64 60	186	224	262	300	338	500			
	68 72 (mm)	64 60 (Kg/cm²)	186 <b>250</b>	224 <b>300</b>	262 <b>350</b>	300 <b>400</b>	338 <b>450</b>	<b>500</b> 74			
	68 72 (mm) 26	64 60 (Kg/cm²) 600	186 <b>250</b> 36	224 <b>300</b> 42	262 <b>350</b> 50	300 <b>400</b> 58	338 <b>450</b> 65	74			
	68 72 (mm) 26 30	64 60 (Kg/cm²) 600 450	186 <b>250</b> 36 50	224 <b>300</b> 42 58	262 <b>350</b> 50 68	300 <b>400</b> 58 78	338 <b>450</b> 65 88	74 98			
	68 72 (mm) 26 30 34	64 60 (Kg/cm <sup>2</sup> ) 600 450 350	186 <b>250</b> 36 50 62	224 <b>300</b> 42 58 76	262 <b>350</b> 50 68 89	300 <b>400</b> 58 78 102	338 <b>450</b> 65 88 115	74 98 125			
	68 72 (mm) 26 30 34 38	64 60 (Kg/cm <sup>2</sup> ) 600 450 350 280	186 <b>250</b> 36 50 62 80	224 <b>300</b> 42 58 76 95	262 <b>350</b> 50 68 89 110	300 400 58 78 102 126	338 450 65 88 115 142	74 98 125 158			
	68 72 (mm) 26 30 34 38 42	64 60 (Kg/cm <sup>2</sup> ) 600 450 350 280 230	186 <b>250</b> 36 50 62 80 96	224 <b>300</b> 42 58 76 95 116	262 <b>350</b> 50 68 89 110 136	300 <b>400</b> 58 78 102 126 156	338 450 65 88 115 142 176	74 98 125 158 195			
MHT-5100	68 72 (mm) 26 30 34 38 42 46	64 60 (Kg/cm <sup>2</sup> ) 600 450 350 280 230 230 200	186 <b>250</b> 36 50 62 80 96 116	224 <b>300</b> 42 58 76 95 116 140	262 <b>350</b> 50 68 89 110 136 164	300 400 58 78 102 126 156 186	338 450 65 88 115 142 176 212	74 98 125 158 195 235			
MHT-5100	68 72 (mm) 26 30 34 38 42 46 50	64 60 ( <b>Kg/cm²)</b> 600 450 350 280 230 230 200 168	186 250 36 50 62 80 96 116 140	224 <b>300</b> 42 58 76 95 116 140 165	262 <b>350</b> 50 68 89 110 136 164 194	300 400 58 78 102 126 156 186 222	338 450 65 88 115 142 176 212 252	74 98 125 158 195 235 276			
MHT-5100	68 72 (mm) 26 30 34 38 42 46 50 50 54	64   60   (Kg/cm²)   600   450   350   280   230   200   168   144	186 250 36 50 62 80 96 116 140 160	224 <b>300</b> 42 58 76 95 116 140 165 190	262 <b>350</b> 50 68 89 110 136 164 194 225	300 <b>400</b> 58 78 102 126 156 186 222 260	338 450 65 88 115 142 176 212 252 252 290	74 98 125 158 195 235 276 325			
MHT-5100	68 72 (mm) 26 30 34 38 42 46 50 54 58	64   60   (Kg/cm²)   600   450   350   280   230   200   168   144   125	186 <b>250</b> 36 50 62 80 96 116 140 160 185	224 <b>300</b> 42 58 76 95 116 140 165 190 224	262 <b>350</b> 50 68 89 110 136 164 194 225 260	300 <b>400</b> 58 78 102 126 156 186 222 260 300	338 450 65 88 115 142 176 212 252 290 336	74 98 125 158 195 235 276 325 375			
MHT-5100	68 72 (mm) 26 30 34 38 42 46 50 54 58 62	64   60   (Kg/cm²)   600   450   350   280   230   200   168   144   125   109	186 <b>250</b> 36 50 62 80 96 116 140 160 185 214	224 <b>300</b> 42 58 76 95 116 140 165 190 224 255	262 <b>350</b> 50 68 89 110 136 164 194 225 260 300	300 <b>400</b> 58 78 102 126 156 186 222 260 300 342	338 450 65 88 115 142 176 212 252 252 290	74 98 125 158 195 235 276 325			
МНТ-5100	68 72 (mm) 26 30 34 38 42 46 50 54 58 62 66	64     60     (Kg/cm²)     600     450     350     280     230     200     168     144     125     109     96	186       250       36       50       62       80       96       116       140       160       185       214       242	224 <b>300</b> 42 58 76 95 116 140 165 190 224 255 290	262 <b>350</b> 50 68 89 110 136 164 194 225 260 300 340	300 <b>400</b> 58 78 102 126 156 186 222 260 300 342 388	338 450 65 88 115 142 176 212 252 290 336	74 98 125 158 195 235 276 325 375			
MHT-5100	68 72 (mm) 26 30 34 38 42 46 50 54 58 62	64   60   (Kg/cm²)   600   450   350   280   230   200   168   144   125   109	186 <b>250</b> 36 50 62 80 96 116 140 160 185 214	224 <b>300</b> 42 58 76 95 116 140 165 190 224 255	262 <b>350</b> 50 68 89 110 136 164 194 225 260 300	300 <b>400</b> 58 78 102 126 156 186 222 260 300 342	338 450 65 88 115 142 176 212 252 290 336	74 98 125 158 195 235 276 325 375			



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ENGINEERING WORKS

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