

# Heavy Duty Industrial Gear Pumps

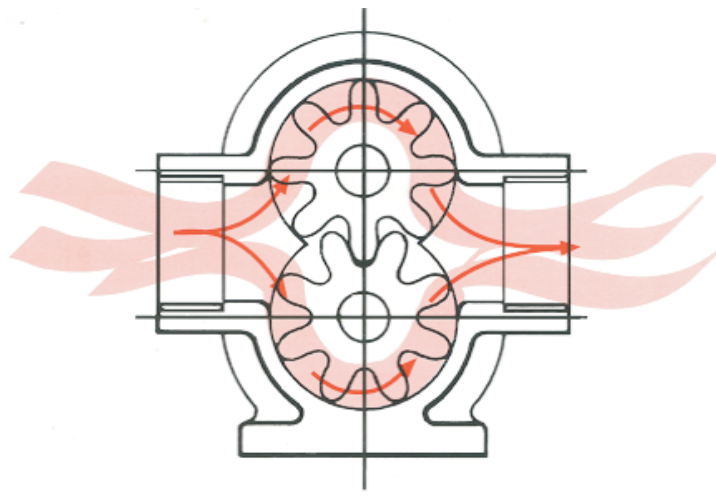
## Ranges AP and HD



- Versatile general purpose pump capable of handling the widest variety of viscous liquids together with simple robust design ensuring ease of maintenance
- Plain internal bearings cater for self lubricating liquids, external lubrication being available when required.
- Available with double helical rotors for quiet pulse-free running
- Simple design with two moving parts
- Temperature 320°C max.
- Pressures to 21 bar (300 PSI)
- Capacity range 9.5 l/min – 2273 l/min
- Integral safety relief valve, can be supplied without

### Some of the many liquids handled by AP and HD Pumps

REFINED TAR	VISCOSE	SILICATE OF SODA	BITUMEN
GLUCOSE	GLUE	PAINTS, RESINS	VARNISH
SIZE, WAX	MOLASSES	FATS	SOAP
CHOCOLATE	ALL OILS	ASPHALT	PRINTING INK
COCOA BUTTER	GREASE	PETROL	PARAFFIN
WINES & SPIRITS	FOODSTUFFS	ACIDS, ALKALIS	POLYMERS



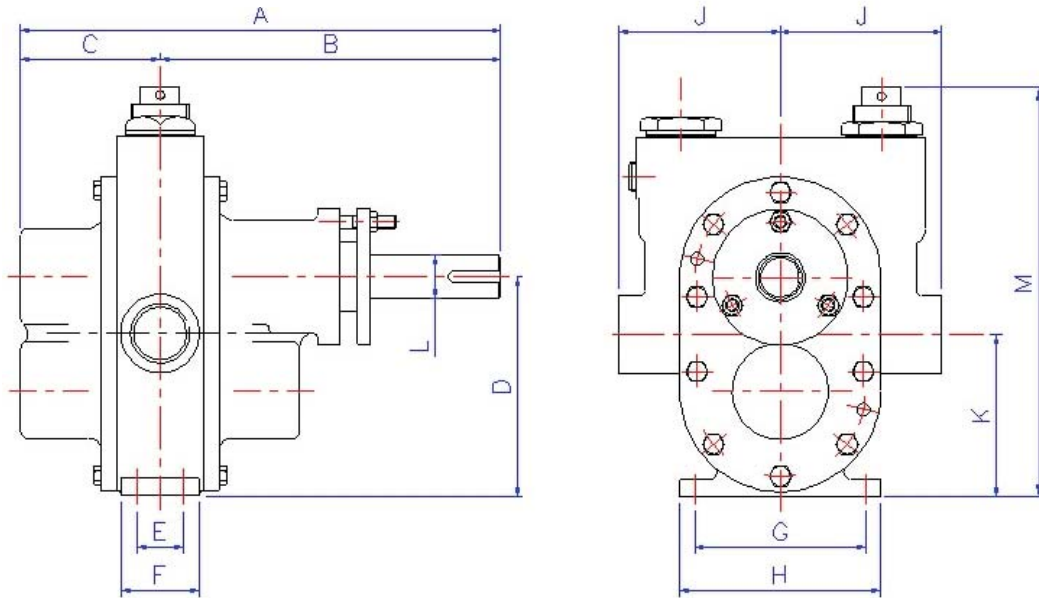
## SPECIFICATION

- Pump Casing:** usually Cast Iron to BSI 452  
also gunmetal to BSI 400  
or stainless steel (AISI 316)  
or carbon steel to ASTM A216 WCB
- Rotors:** usually carbon steel, nitrided steel, phosphor bronze, stainless steel, ni-resist or cast iron  
spur gear rotors are standard up to AP9. AP10 to HD4 double helical gear rotors are standard. For sizes AP6 to AP9 double helical rotors are an option.
- Shafts:** usually hardened & ground steel, can also be supplied in stainless steel AISI 316
- Internal Bearings:** for most fluids a PTFE based bearing is used  
bushes can also be supplied in cast iron, phosphor bronze or carbon
- Sealing:** packed with PTFE based packing, or mechanical seals.
- Mounting:** foot mounted or flange mounted pumps are supplied as standard

## PERFORMANCE – powers & flows typical for 125 cst liquid @ 3.5 bar

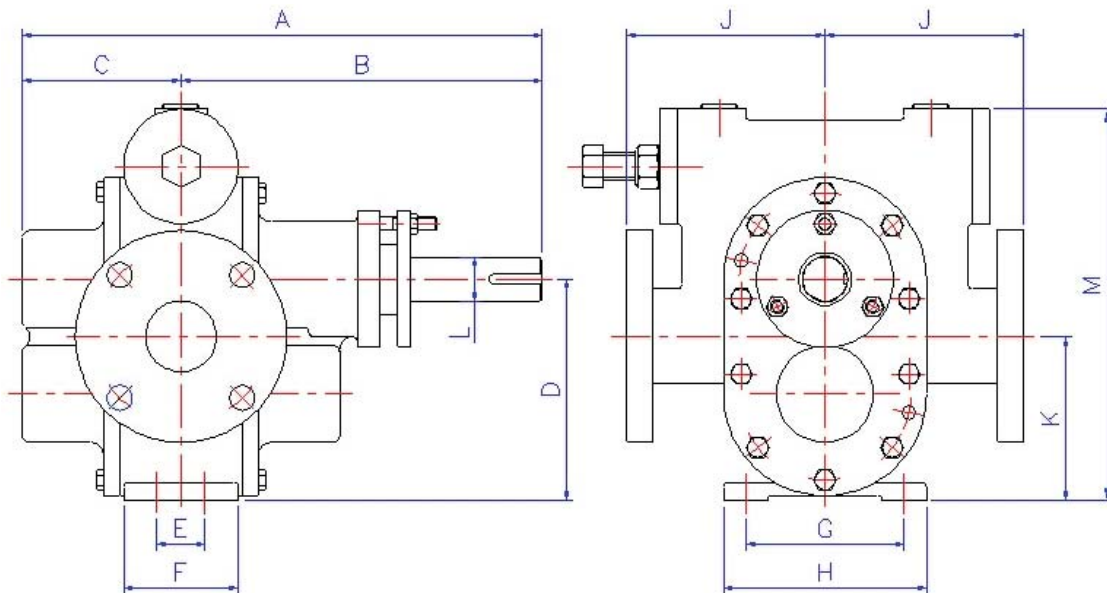
Pump Size	95% of Theoretical output Litres/rev	Maximum viscosity 3,000 centistokes 500 RPM		Maximum viscosity 2,000 centistokes 720 RPM		Maximum viscosity 1,200 centistokes 960 RPM		Maximum viscosity 750 centistokes 1420 RPM	
		L/M	kW	L/M	kW	L/M	kW	L/M	kW
AP4	.0194	9.5	.37	13.9	.37	18.6	.37	27.7	.56
AP5	.031	15.5	.37	22.3	.56	30.0	.55	44.0	.75
AP6	.0434	21.4	.56	32.3	.75	42.7	.75	63.6	1.1
AP7	.0687	35.5	.75	50.0	1.1	65.9	1.5	97.7	2.2
AP8	.108	54.1	1.5	80.9	1.5	107.7	2.2	159	3
AP9	.162	80.9	1.5	117	1.5	156	2.2	230	4
AP9W	.213	104	3.0	154	3.5	208	4.0	313	6.5
HD3	.273	136	4.0	197	4.0	264	5.5	390	7.5
HD4	0.386	195	4.1	277	5.6	368	7.5	520	8.5
HD5	0.491	245	5.6	350	7.5	473	7.5	650	9.5
HD6	0.62	310	7.5	445	7.5	600	11.2	880	14.0
HD8	1.00	509	11.2	718	11.2	955	14	REFER TO WORKS	
HD8x7"Q	1.83	593	11.5	852	12.0	1136	15		
AP14 D/H Q	1.20	600	12.0	865	14	1114	20E		
HD11Qx9	2.09	1045	16.0E	1500	22.0E	2000	31.0E		
HD12	3.0	1364	18.6	Maximum speed 600 rpm					
HD14	5.0	2273	37.3						

## DIMENSIONS in millimetres



**SIZES AP4 – HD3 Relief Valve Pumps**

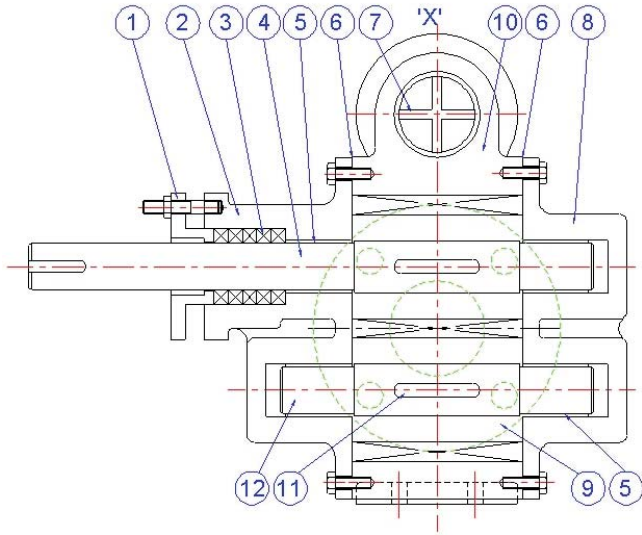
PUMP	A	B	C	D	E	F	G	H	J	K	L	M	Branch	Weight
AP4	160	114	46	76	-	29	70	89	57	60	13	230	1/2" BSP F	3 Kg
AP5	176	120	56	76	29	48	70	89	57	60	13	230	3/4" BSP F	4.5 Kg
AP6	230	163	67	92	19	35	82	102	83	71	19	240	3/4" BSP F	8 Kg
AP7	252	175	78	92	34	57	82	102	76	71	19	240	1" BSP F	11 Kg
AP8	267	187	80	114	32	54	102	127	111	86	25	260	1 1/4" BSP F	17 Kg
AP9	292	200	92	114	38	76	102	127	121	86	25	260	1 1/2" BSP F	21 Kg
AP9W	324	216	108	114	76	108	124	152	82	86	25	171	2 1/2" BSP F	25 kg
HD3 -AP10	349	248	101	160	25	57	121	146	137	1188	32	355	DIN 40 PN16	31 Kg



**SIZES HD4 – HD10 Relief Valve Pumps**

PUMP	A	B	C	D	E	F	G	H	J	K	L	M	Branch	Weight
HD4 – AP11	375	260	114	160	35	83	114	146	146	118	32	285	DIN 50 PN16	41 Kg
HD5 – AP11.5	400	273	127	160	51	108	114	146	171	118	32	315	DIN 65 PN16	55 Kg
HD6	438	292	146	160	89	146	127	159	168	118	32	300	DIN 80 PN16	66 Kg
HD7	440	292	148	197	35	95	152	191	203	146	38	380	DIN 80 PN16	70 Kg
HD8 – AP13	490	330	160	197	83	146	140	178	202	146	38	413	DIN 100 PN16	73 Kg
HD10 – 3" SMC	609	406	203	248	76	152	159	203	211	184	44	435	DIN 100 PN16	100 Kg

## PARTS LIST



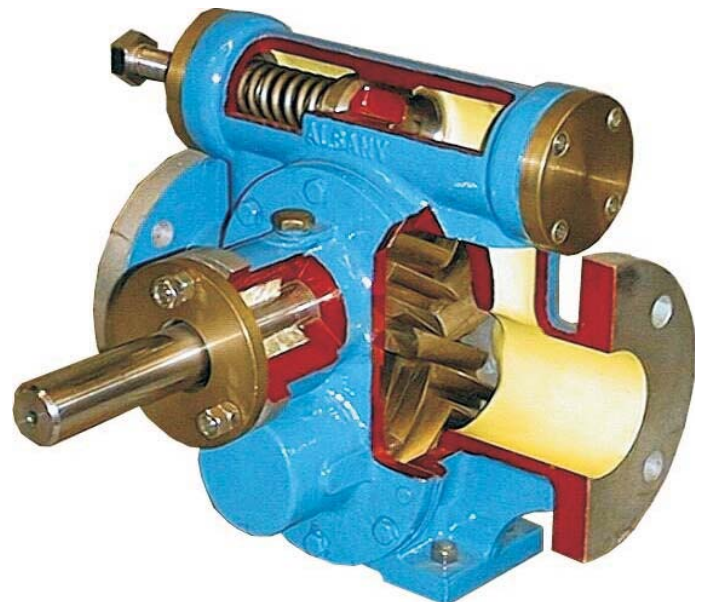
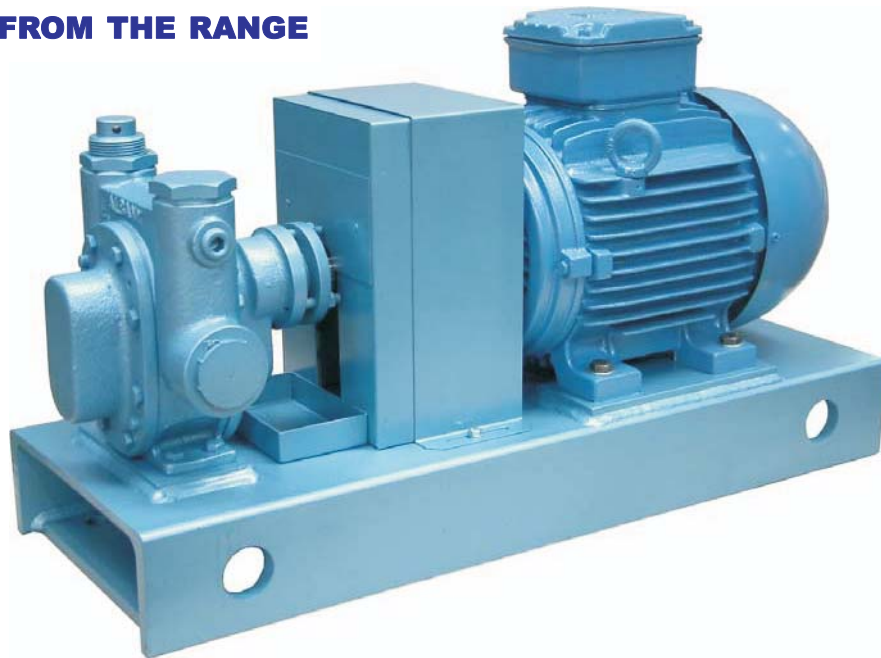
- 1 Gland
- 2 Front Cover
- 3\* Gland Packing
- 4\* Driving Shaft
- 5\* Bushes (4 per set)
- 6\* Gaskets
- 7 Relief Valve comprises...
- 8 Back Cover
- 9\* Rotors (2)
- 10 Body
- 11\* Key (2)
- 12\* Following Shaft

Valve  
 Adjusting Screw  
 Locknut  
 Spring  
 (AP11 & over)  
 Spring Header  
 Fibre Washer

## SPARES

Items we recommend as spares are indicated\*  
 When ordering spares please quote pump size and the  
 pump serial number usually stamped in position 'X'.

## TYPICAL PUMPS FROM THE RANGE



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