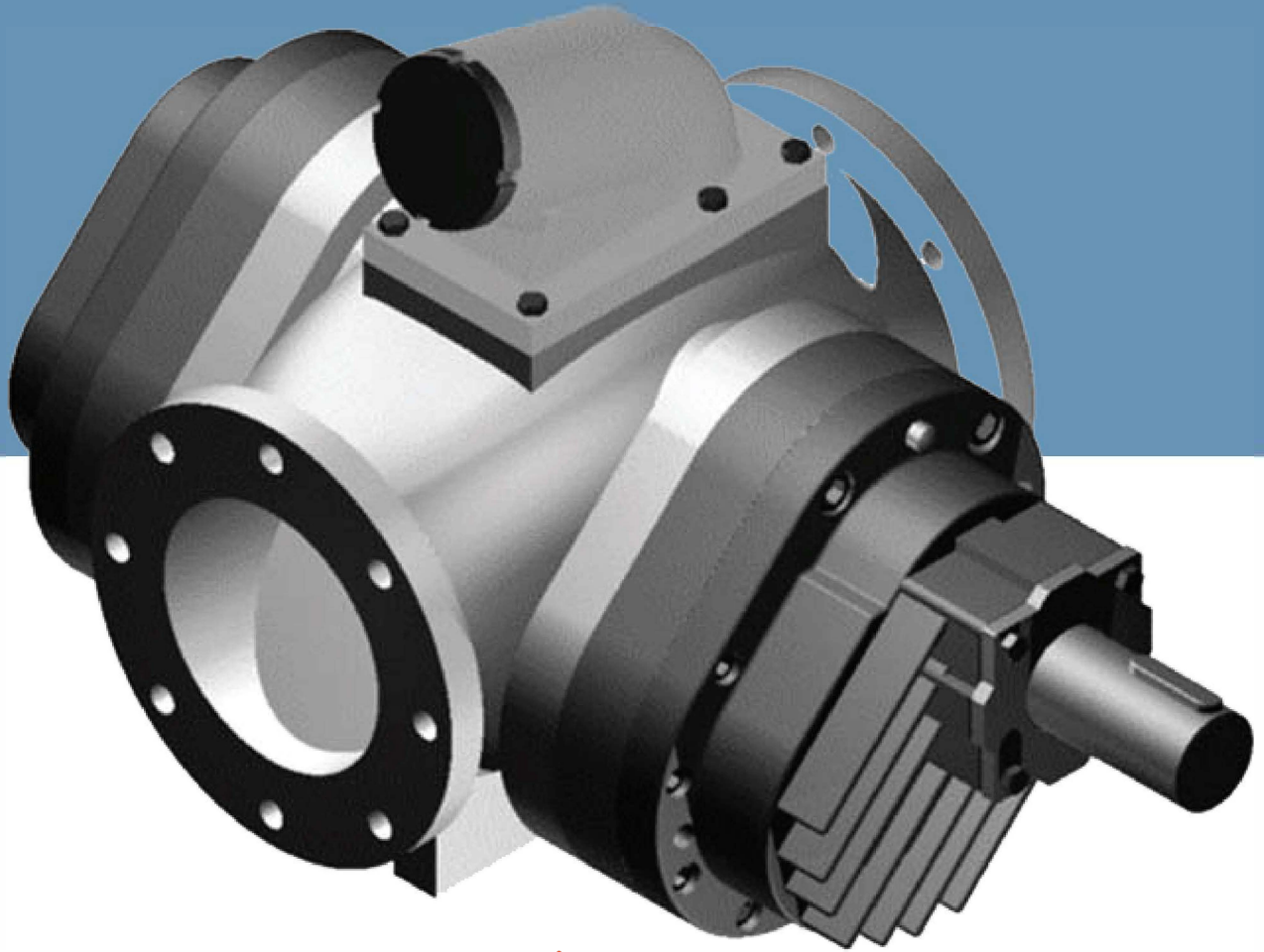


# Rotary Gear Pump

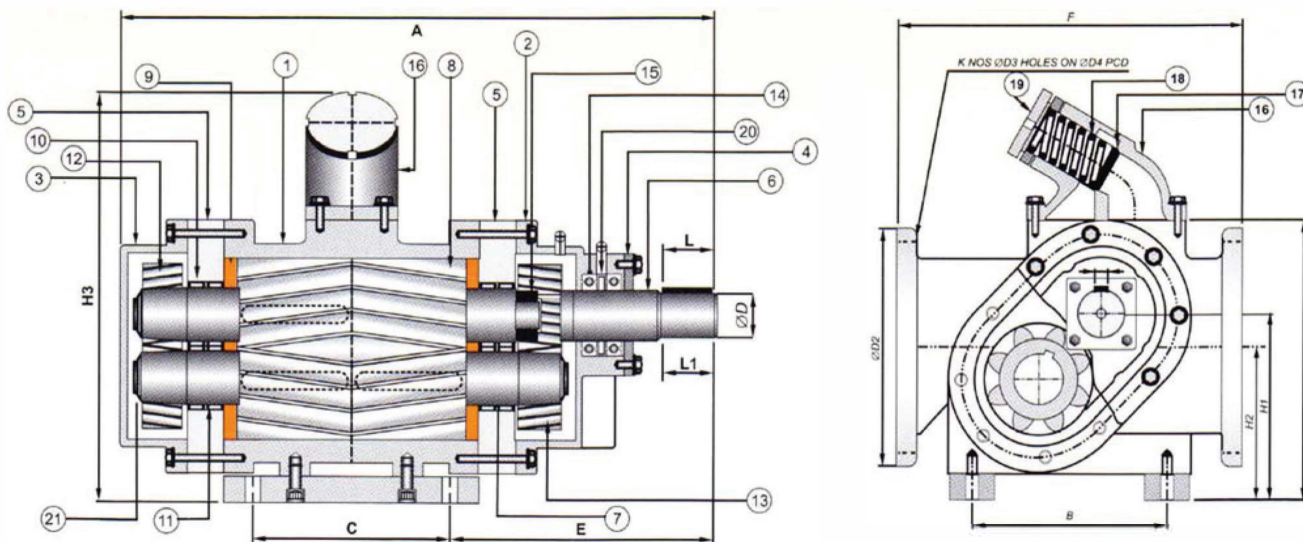


## NDX SERIES

**With a Pair of Impeller Gears, Timing Gears & Reduction Gears**

From 5" to 12" Size NB (Flanged to ASA 150Class) Capacity from 80 m<sup>3</sup>/hr to 550 m<sup>3</sup>/hr, Pressure up to 11 bar Viscosity 10,000 CST, Temperature up to 110 oC

# NDX SERIES



MOC	01	Pump Body	1	C.I. Gr-20 / C.S.	08	Impeller Gears	4	AISI 1040	15	Bush Bearing	1	Bronze
	02	Front Cover	1	C.I. Gr-20 IS 210	09	Wearing Plate	4	LT- Bronze	16	R.V. Body	1	C.I. Gr-20 / C.S.
	03	Back Cover	1	C.I. Gr-20 IS 210	10	Needle Roller Brg.	8	IKO-INA	17	Relief Valve Piston	1	AISI 1040
	04	Oil Seal Cover	1	C.I. Gr-20 IS 210	11	'V' Seal / Mech. Seal	8	Viton/BURG.	18	Spring	1	Spring Steel
	05	Bearing Cover	2	C.I. Gr-20 IS 210	12	R.H. & L.H. Timing Gear	1+1	EN-353 H&G	19	R.V. AD Screw	1	AISI 1040
	06	Rotor Shaft	1	AISI 1055 H&G	13	Pinion & Reduction gear	1+1	EN-353 H&G	20	Flushing Wheel	1	AISI 1040
	07	Stator Shaft	1	AISI 1055 H&G	14	Pinion Supp. Ball Bearing	2	SKF	21	Washer	1	AISI 1040

MODEL, SIZE, CAP & DIMENSIONS	PUMP MODEL & SIZE	DESIGNED CAP. AT 960 RPM QD M3/HR	COEFFICIENT OF		GEAR DIMENSION		PUMP DIMENSION										WEIGHT KG
			SLEEPPAGE s	VISCIOUS POWER Cv	DIA	F/W	OVERALL			MOUNTING & SHAFT				FLANGE			
							A	H3	B	E	L	H1	D	P	D2	D4	
NDX-500 5" X 5"	S	80.00	15.35	10.50	114	226	720	510	200	380	75	215	47	16	254	216	200
	L	95.00	15.35	12.50		280	435	335	200	36	80	182		51.5	22	08	
NDX-600 6" X 6"	S	125.00	20.50	13.95	136	226	810	545	250	385	93	260	57	16	279	241	265
	L	175.00	20.50	15.65		320	505	400	250	35	105	221		61.5	22	08	
NDX-800 8" X 8"	S	200.00	25.40	18.50	160	276	970	640	300	450	85	292	74	20	340	292	325
	L	275.00	25.40	20.25		380	555	450	300	42	90	245		79	22	08	
NDX-1000 10" X 10"	S	325.00	33.50	22.50	193	316	1075	700	350	465	90	320	77	22	406	362	410
	L	425.00	33.50	25.50		410	610	480	350	50	100	265		84.5	25	12	
NDX-1200 12" X 12"	S	475.00	40.20	33.50	218	400	1165	825	400	500	100	375	85	22	482	432	550
	L	550.00	41.25	35.75		450	700	575	400	50	120	310		91	25	12	

FLOW & POWER CALCULATION	$Actual\ flow, Q_a = \left\{ \frac{Pump\ RPM}{960} \times Q_d \right\} - Q_s$ (Slippage flow)							$Actual\ Power, P_a = \left\{ \frac{Pump\ RPM}{960} \right\} \times \left\{ \frac{Q_a \times \Delta P}{27} \right\} P_v$ (Viscous power)										
	Where $Q_s = C_s \times C_d \times C_l$							Where $P_v = C_r \times C_v \times C_p$										
	$\Delta P$ Kg/Cm <sup>2</sup>	2	4	5	7	9	10	12	Viscosity CST	1	10	35	75	150	350	600	850	1250
	Coeffi. $\Delta P$	0.35	0.55	0.65	0.80	0.92	1.00	1.10	Coeffi. Leakage CL	2.75	2.00	1.50	1.20	1.00	0.85	0.70	0.65	0.60
								Coeffi. Ex.power CP	0.40	0.55	0.75	1.00	1.25	1.85	2.25	2.65	3.25	
AVAILABLE PUMP RPM WHEN COUPLED WITH 1440 RPM MOTOR																		
GEAR RATIO	13/39	14/39	15/37	16/36	17/35	18/34	19/33	20/32	21/31	22/30	23/29	24/28	25/27	26/26				
PUMP RPM	480	530	585	640	700	762	829	900	775	1056	1142	1234	1333	1440				
COEFFICIENT RPM Cr	0.20	0.22	0.24	0.27	0.30	0.35	0.38	0.45	0.50	0.57	0.65	0.75	0.85	1.00				

## APPLICATION

Type NDX are bulk handling pumps used for loading, un-loading & transfer high volume for wagon decanting, cargo un-loading of various viscous liquid such as edible oils, Fuel oils, viscous chemicals etc. Because of the built-in speed reduction, the pump can directly be coupled with the motor there by reducing the overall cost & space, the timing gear reduces the noise level & enhances the working life of the pump.



EBAB GEAR PUMPS