Table 1.5 Crude oil booster Pumps NGPN-M (BB1)

Pump Name	Rated Flow, m3/hr	Head, m	Speed, rpm	Pump Shaft Power, kW	NPSHR, m
NGPN-M (НГПН-М) 1250-160	1250	160	1500	1000	1,8
NGPN-M (НГПН-М) 1250/0,5-160	750	160	1500	800	1.9
NGPN-M (НГПН-М) 1250-160	1500	160	1500	1250	2,0
NGPN-M (НГПН-М) 2500-160	2500	160	1500	1800	2,5
NGPN-M (НГПН-М) 2500-160	3000	160	1500	2000	2,7
NGPN-M (НГПН-М) 3600-120	3600	110	1000	1600	2,5
NGPN-M (НГПН-М) 3600-120	3600	120	1000	1600	2,5
NGPN-M (НГПН-М) 3600-120	4000	125	1000	2000	3,0
NGPN-M (НГПН-М) 3600-78	3600	78	1000	1000	2,5
NGPN-M (НГПН-М) 3600-78	3600	90	1000	1250	2,5

Designed to ensure the necessary suction head (a greater NPSH available) for the main pipeline pumps. May be used also for pumping crude oil in other process systems at the pump stations or at other industrial projects.

Electrically driven, horizontal foot-mounted, between-bearings, single-stage, axially split volute casing centrifugal pumps with a double entry radial impeller and an inducer on each side to reduce the NPSH value. Rotor radial forces are taken up by the radial antifriction bearings with self-contained oil-ring lubrication. The residual axial thrust of the rotor is absorbed by two single row angular-contact antifriction bearings mounted back to back. Shaft sealing: by single mechanical seals, each provided with an auxiliary (safety) seal on the atmosphere side. Cyclone separators are employed to clean handled oil extracted at the top connection from contaminants and solids and to supply cleaned liquid for sealing the mechanical seals.

Table 1.5/1 Crude oil booster Pumps NDSn-M (BB1)

Pump Name	Rated Flow, m3/hr	Head, m	Speed, rpm	Pump Shaft Power, kW
20NDSn-M (20НДСн-М)	2200	45	750	315
20NDSn-M (20НДСн-М)	3200	75	1000	800
14NDSn-M (14НДСн-М)	1000	40	1000	200
12NDSn-M (12НДСн-М)	1250	65	1500	315
8NDVn-M (8НДВн-М)	630	90	1500	250
8NDVn-M (8НДВн-М)	500	38	1000	90
6NDVn-M (6НДВн-М)	320	50	1500	75

Crude oil booster Pumps NDSn-M (BB1)

NDSn-M designed for delivering crude oil to the main pipeline pumps as booster pumps to ensure their cavitation-free operation. Suitable also as a loading pump for filling light products into tank wagons at the refineries and as an oil transfer pump in the tank farms.

Electrically driven, horizontal foot-mounted, between-bearings, single-stage, axially split volute casing centrifugal pump with a double entry radial impeller. The rotor is carried by grease-lubricated spherical roller bearings. Shaft sealing: mechanical seals with organized leakage drain.