

Rotech DN Series Pumps

General Purpose
End Suction Pumps



Rotech DN Series Pumps

are general purpose, frame mounted end suction pumps flexibly Coupled to drivers. Each entire unit can be mounted on a common base plate.

Applications

DN Series pumps are designed for applications in medium duty service, providing maximum pump value in heating and air conditioning, booster and general circulating services.

Specifications

Capacities	: Up to 3000 GPM
Head	: Up to 400 feet
Pressure	: Up to 175 psi
Horsepower	: Up to 200 hp
Temperature	: From 32 F to 200 F
Drives	: Electric Motors
Liquids	: Water and Light Hydrocarbons
Materials	: Cast Iron, Bronze, Stainless Steel



Features

DN Series Pumps are available in cast iron bronze fitted and all iron Materials of Construction with type 21 mechanical seals. All stainless steel MOC can be supplied upon request.

Pump casing is fitted with a bronze/Cast Iron replaceable wear ring . Suction and Discharge connection flanges are ANSI rated 150# maximum working pressure. Rotech can supply 200# or higher rated ANSI flanges connections if required.

Motor bearings are grease lubricated and are sized for a minimum of 20,000 hours L10 basic rating life or 100,000 hours median bearing life. Shaft is designed to limit the shaft deflection to no more than .022" at the seal faces.

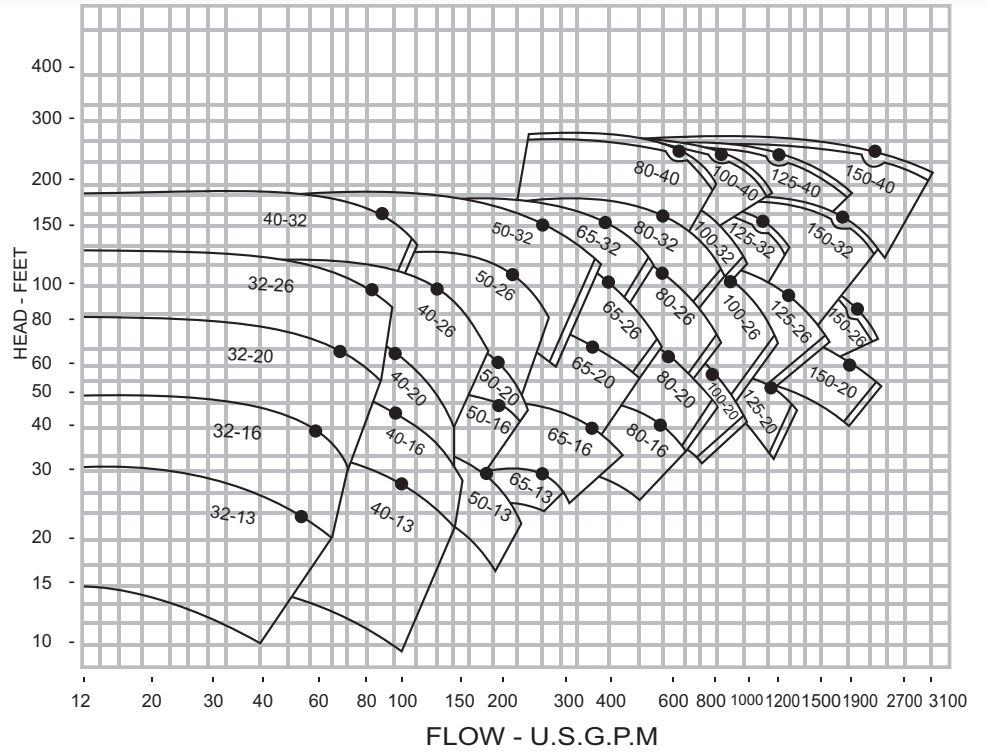
The motor/impeller shaft is protected with a replaceable (bronze/stainless steel) sleeve installed between the shaft and mechanical seal.

Mechanical seals are designed for water service and light hydrocarbons up to 200F. Seals are face type with Ceramic seat, carbon washer, stainless steel metal parts and Buna elastomers. MOC for mating faces and elastomers can be supplied based on application and customers requirements.

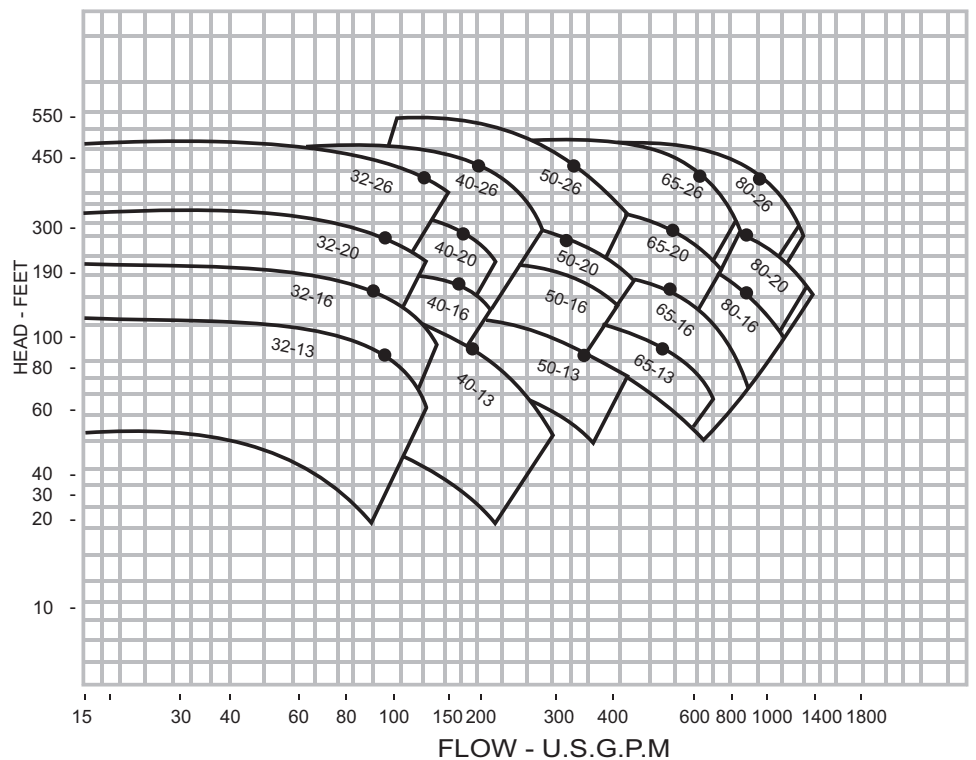
Rotech DN Series Pumps are supplied with enclosed dynamically balanced impellers for smooth, low vibration operation. The impeller is keyed to the shaft for positive driving and is secured in place with a stainless steel washer and self locking cap screw.



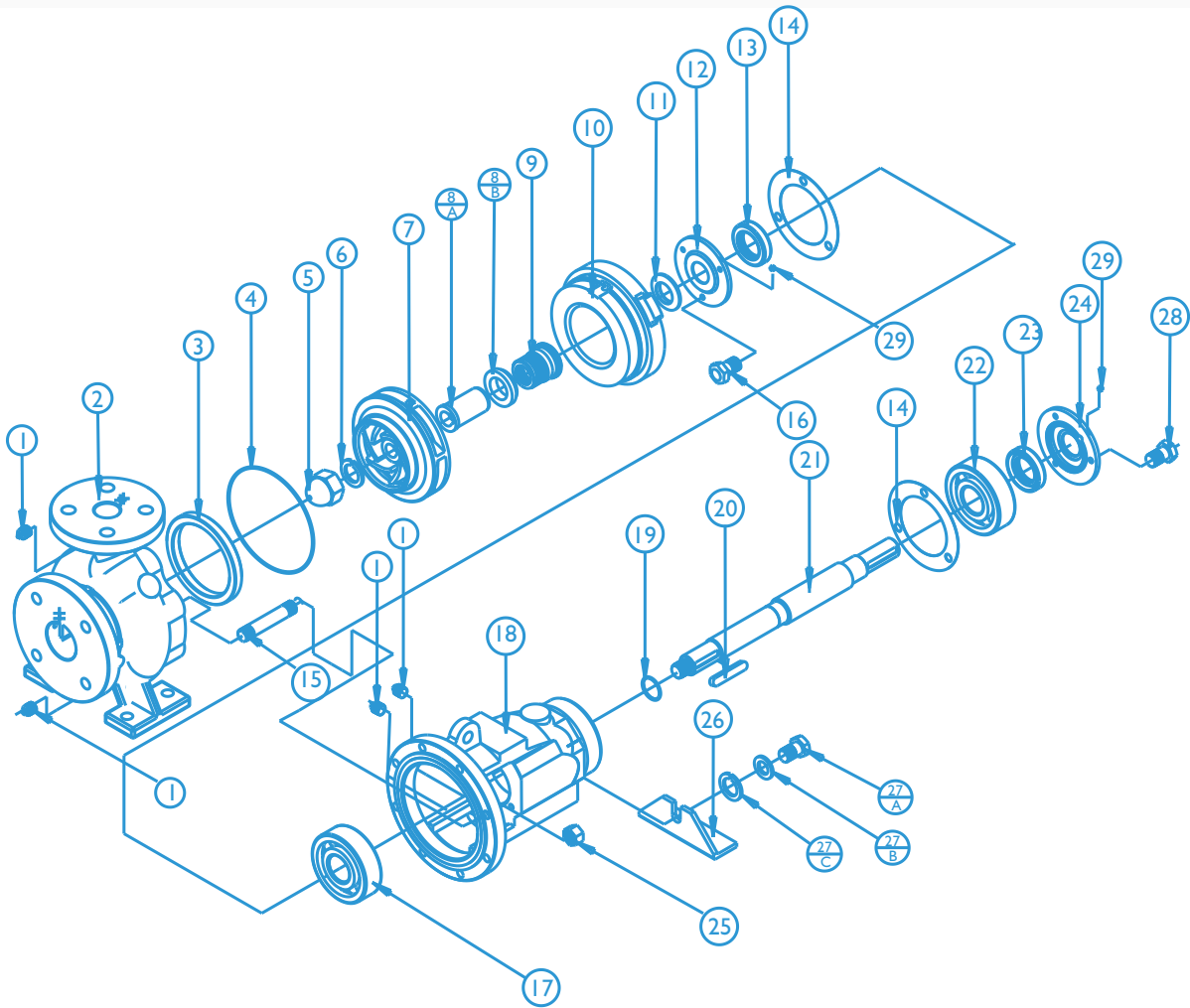
Selection Chart 1800 RPM



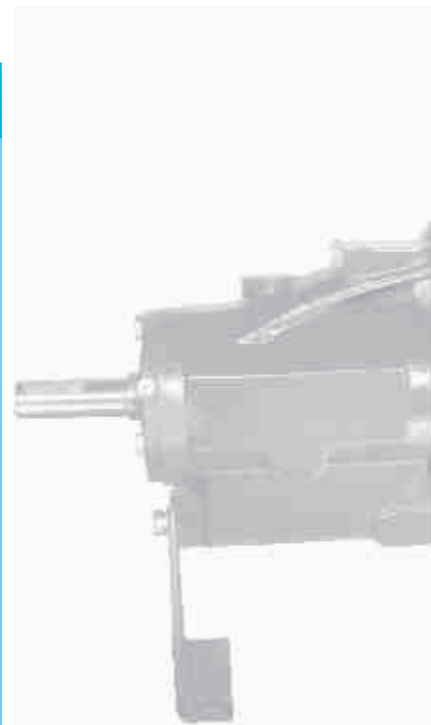
Selection Chart 3600 RPM



DN Pump Blown-up Drawing



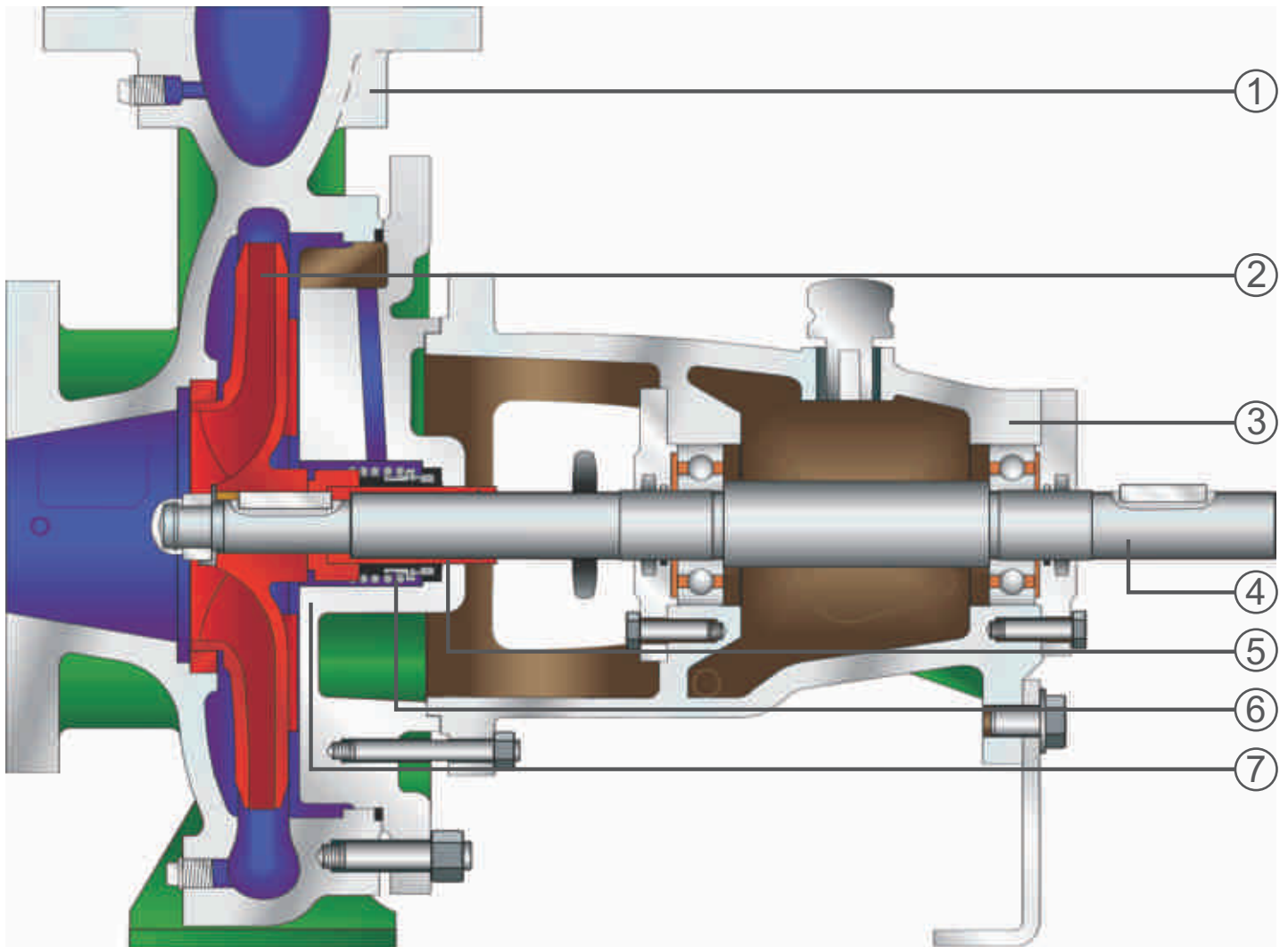
Part #	Part Name	Part #	Part Name
1	Plug	16	Bolt
2	Pump casing	17	Inboard bearing
3	Casing wear ring	18	Bearing housing
4	Casing O Ring	19	Shaft sleeve O ring
5	Impeller Nut	20	Key shaft
6	Spring washer	21	Shaft
7	Impeller	22	Outboard bearing
8A	Shaft sleeve	23	Outboard lip seal
8B	Abutment ring	24	Outboard bearing cover
9	Mechanical seal	25	Nut
10	Casing cover	26	Rear foot support
11	Slinger	27C	Flat washer
12	Inboard bearing cover	27B	Spring washer
13	Inboard lip seal	27A	Bolt
14	Gasket	28	Bolt
15	Stud	29	Grease nipple





Cross Sectional View

Item	Description
1	Casing
2	Impeller
3	Power Frame
4	Shaft
5	Shaft Sleeve
6	Mech Seal
7	Stuffing box
8	Casing wearing ring



Modular Interchangeability Chart

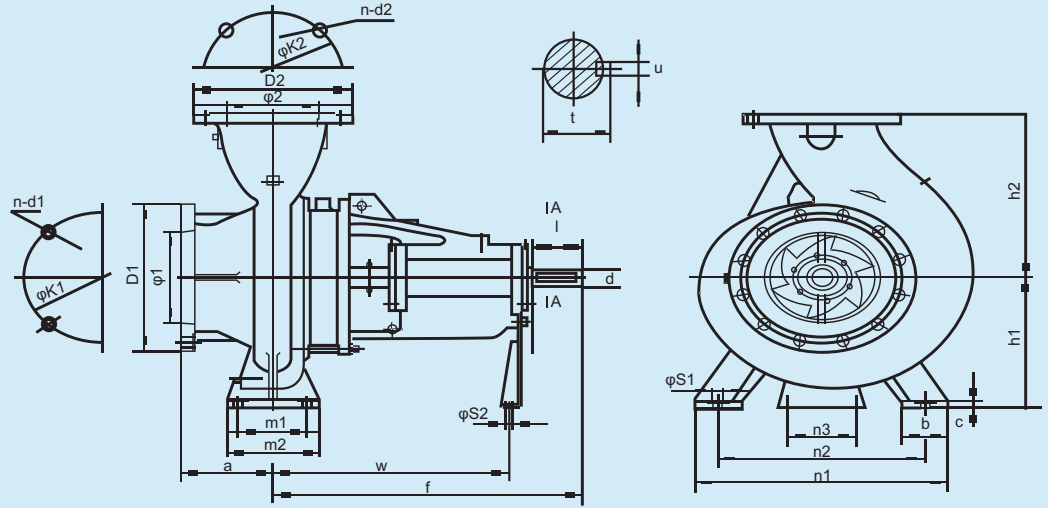


Rotech DN Series / Part Name		Casing	Imp	Casing Cover	Wear Ring	Shaft Sleeve	Mech Seal
Model	Pump Size	C.I	BR C95200	C.I	BR C83600	KITS	RS2I
DN 32/13	1 1/4x2-5	UDN XX/XX-001	UDN XX/XX-002	13-1	70	1.25"	1.25"
DN 40/13	1 1/2x2 1/2-5				80		
DN 50/13	2x2 1/2-5				95		
DN 65/13	2 1/2x3-5				115		
DN 32/16	1 1/4x2-7				70		
DN 40/16	1 1/2x2 1/2-7			80			
DN 50/16	2x2 1/2-7			95			
DN 65/16	2 1/2x3-7			115			
DN 80/16	3x4-7			130			
DN 100/16	4x5-7			130			
DN 32/20	1 1/4x2-8			80			
DN 40/20	1 1/2x2 1/2-8			80			
DN 50/20	2x2 1/2-8			95			
DN 65/20	2 1/2x3-8			115			
DN 80/20	3x4-8			130			
DN 100/20	4x5-8			160			
DN 125/20	5x6-8			180			
DN 150/20	6x8-8			1.625"	1.625"		
DN 32/26	1 1/4x2-10			80			
DN 40/26	1 1/2 x2 1/2-10			95			
DN 50/26	2x2 1/2-10			115			
DN 65/26	2 1/2x3-10			115			
DN 80/26	3x4-10			130			
DN 100/26	4x5-10			160			
DN 125/26	5x6-10			180			
DN 150/26	6x8-10			200/200			
DN 200/26	8x10-10			220/200			
DN 40/32	1 1/2x2 1/2-13			95/95A			
DN 50/32	2x2 1/2 -13			115/115			
DN 65/32	2 1/2x3-13			130/125			
DN 80/32	3x4-13			140/135			
DN 100/32	4x5-13			160/155			
DN 125/32	5x6-13			180/180A			
DN 150/32	6x8-13	200/200					
DN 200/32	8x10-13	250/250					
DN 250/32	10x12-13	270/270					
DN 80/40	3x4-16	140/160A					
DN 100/40	4x5-16	160/160A					
DN 125/40	5x6-16	180/180A					
DN 150/40	6x8-16	200/200					
DN 200/40	8x10-16	265/265					
DN 250/40	10x12-16	270/270					
DN 150/50	6x8-20	215/215					
DN 200/50	8x10-20	250/250					

Sleeve Ring	Casing Ring	Bearing Housing Assembly			
		Frame	Shaft	Bearing Cover	Bearing
NBR	NBR	C.I	SS	C.I	NTN
φ23.6x1.8	φ140x3.1	25A-01			
	φ175x3.1	25B-01	25-01	25-02	6305 (2)
	φ215x3.1	25A-01			
35-01		35-01	35-02	6307 (2)	
φ31.5x1.8		35G-01			
φ23.6x1.8	φ265x3.1	25B-01	25-01	25-02	6305 (2)
φ31.5x1.8		35-01	35-01	35-02	6307 (2)
φ43.7x2.65		45A-01	45-01	45-02	6309 (2)
		45-01			
φ31.5x1.8	φ330x3.1	35-01	35-01	35-02	6307 (2)
φ43.7x2.65		45-01	45-01	45-02	6309 (2)
φ55x3.1	φ345x3.55	55-01	55-01	55-02	6311 (2)
φ60x2.65	φ330x3.1	60-01	60-01	60-02	6312 (2)
φ43.7x2.65	φ410x3.1	45-01	45-01	45-02	6309 (2)
		55-01	55-01	55-02	6311 (2)
φ69x2.65	φ425x7	70-01	70-01	70-02	3314(1) NU314(1)
φ60x2.65	φ505x7	60-01	60-01	60-02	6312(2)
φ69x2.65	φ505x7	70-01	70-01	70-02	3314(1) NU314(1)



Dimensional Data



MODEL	PUMP DIMENSION												PUMP FOOT DIMENSION								SHAFT END					WEIGHT (lbs)	
	$\phi 1$	$\phi 2$	D1	$\phi K1$	n-d1	D2	$\phi K2$	n-d2	a	f	h1	h2	b	c	m1	m2	n1	n2	n3	$\phi S1$	$\phi S2$	w	d	l	t		u
DN32/13	2	1.25	6	4.75	4-0.75	4.62	3.5	4-0.62	3.15	14.2	4.5	5.34	1.97	0.55	3.94	2.76	7.48	5.51	3.94	0.563	0.55	10.5	0.875	1.97	0.969	0.25	60.6
DN32/16	2	1.25	6	4.75	4-0.75	4.62	3.5	4-0.62	3.15	14.2	5.25	6.17	1.97	0.55	3.94	2.76	9.45	7.48	3.94	0.563	0.55	10.5	0.875	1.97	0.969	0.25	77.1
DN32/20	2	1.25	6	4.75	4-0.75	4.62	3.5	4-0.62	3.15	14.2	6.25	6.9	1.97	0.55	3.94	2.76	9.45	7.48	4.33	0.563	0.55	10.5	0.875	1.97	0.969	0.25	90.3
DN32/26	2	1.25	6	4.75	4-0.75	4.62	3.5	4-0.62	3.94	14.2	7	8.67	2.56	0.55	4.92	3.74	12.6	9.84	4.33	0.563	0.55	10.5	0.875	1.97	0.969	0.25	130.0
DN40/13	2.5	1.5	7	5.5	4-0.75	5	3.88	4-0.62	3.15	14.2	4.5	5.42	1.97	0.55	3.94	2.76	8.27	6.3	3.94	0.563	0.55	10.5	0.875	1.97	0.969	0.25	66.1
DN40/16	2.5	1.5	7	5.5	4-0.75	5	3.88	4-0.62	3.15	14.2	5.25	6.17	1.97	0.55	3.94	2.76	9.45	7.48	3.94	0.563	0.55	10.5	0.875	1.97	0.969	0.25	79.3
DN40/20	2.5	1.5	7	5.5	4-0.75	5	3.88	4-0.62	3.94	14.2	6.25	6.98	1.97	0.55	3.94	2.76	10.4	8.35	4.33	0.563	0.55	10.5	0.875	1.97	0.969	0.25	96.9
DN40/26	2.5	1.5	7	5.5	4-0.75	5	3.88	4-0.62	3.94	14.2	7	8.75	2.56	0.55	4.92	3.74	12.6	9.84	4.33	0.563	0.55	10.5	0.875	1.97	0.969	0.25	134.4
DN40/32	2.5	1.5	7	5.5	4-0.75	5	3.88	4-0.62	4.92	18.5	8	9.72	2.56	0.55	4.92	3.74	13.6	11	4.33	0.563	0.55	13.5	1.25	3.15	1.25	0.313	211.0
DN50/13	2.5	2	7	5.5	4-0.75	6	4.75	4-0.75	3.94	14.2	5.25	6.17	1.97	0.55	3.94	2.76	9.45	7.48	3.94	0.563	0.55	10.5	0.875	1.97	0.969	0.25	74.9
DN50/16	2.5	2	7	5.5	4-0.75	6	4.75	4-0.75	3.94	14.2	6.25	6.98	1.97	0.55	3.94	2.76	10.4	8.35	4.33	0.563	0.55	10.5	0.875	1.97	0.969	0.25	83.7
DN50/20	2.5	2	7	5.5	4-0.75	6	4.75	4-0.75	3.94	14.2	6.25	7.77	1.97	0.55	3.94	2.76	10.4	8.35	4.33	0.563	0.55	10.5	0.875	1.97	0.969	0.25	101.3
DN50/26	2.5	2	7	5.5	4-0.75	6	4.75	4-0.75	3.94	14.2	7	8.75	2.56	0.55	4.92	3.74	12.6	9.84	4.33	0.563	0.55	10.5	0.875	1.97	0.969	0.25	138.8
DN50/32	2.5	2	7	5.5	4-0.75	6	4.75	4-0.75	4.92	18.5	9	10.9	2.56	0.55	4.92	3.74	13.6	11	4.33	0.563	0.55	13.5	1.25	3.15	1.25	0.313	222.5
DN65/13	3	2.5	7.5	6	4-0.75	7	5.5	4-0.75	3.94	14.2	6.25	7.88	2.56	0.55	4.92	3.74	11	8.35	4.33	0.563	0.55	10.5	0.875	1.97	0.969	0.25	85.9
DN65/16	3	2.5	7.5	6	4-0.75	7	5.5	4-0.75	3.94	14.2	6.25	7.88	2.56	0.55	4.92	3.74	11	8.35	4.33	0.563	0.55	10.5	0.875	1.97	0.969	0.25	94.7
DN65/20	3	2.5	7.5	6	4-0.75	7	5.5	4-0.75	3.94	14.2	7	8.87	2.56	0.55	4.92	3.74	12.6	9.84	4.33	0.563	0.55	10.5	0.875	1.97	0.969	0.25	154.2
DN65/26	3	2.5	7.5	6	4-0.75	7	5.5	4-0.75	3.94	18.5	8	9.83	3.15	0.63	6.3	4.72	14.2	11	4.33	0.752	0.55	13.5	1.25	3.15	1.25	0.313	178.4
DN65/32	3	2.5	7.5	6	4-0.75	7	5.5	4-0.75	4.92	18.5	9	11.02	3.15	0.63	6.3	4.72	15.7	12.4	4.33	0.752	0.55	13.5	1.25	3.15	1.25	0.313	242.3
DN80/16	4	3	9	7.5	8-0.75	7.5	6	4-0.75	4.92	14.2	7	8.83	2.56	0.55	4.92	3.74	12.6	9.84	4.33	0.563	0.55	10.5	0.875	1.97	0.969	0.25	118.9
DN80/20	4	3	9	7.5	8-0.76	7.5	6	4-0.75	4.92	18.5	7	9.81	2.56	0.55	4.92	3.74	13.6	11	4.33	0.563	0.55	13.5	1.25	3.15	1.25	0.313	154.2
DN80/26	4	3	9	7.5	8-0.77	7.5	6	4-0.75	4.92	18.5	8	10.98	3.15	0.63	6.3	4.72	15.7	12.4	4.33	0.752	0.55	13.5	1.25	3.15	1.25	0.313	200.4
DN80/32	4	3	9	7.5	8-0.78	7.5	6	4-0.75	4.92	18.5	10	12.36	3.15	0.63	6.3	4.72	15.7	12.4	4.33	0.752	0.55	13.5	1.25	3.15	1.25	0.313	264.3
DN80/40	4	3	9	7.5	8-0.79	7.5	6	4-0.75	4.92	20.9	11	13.96	3.35	0.63	6.3	4.72	17.3	13.4	4.33	0.752	0.55	14.5	1.625	4.33	1.25	0.313	354.6
DN100/16	5	4	10	8.5	8-0.88	9	7.5	8-0.75	4.92	14.2	7	8.75	2.56	0.55	4.92	3.74	12.6	9.84	4.33	0.563	0.55	10.5	0.875	1.97	0.969	0.25	160.0
DN100/20	5	4	10	8.5	8-0.88	9	7.5	8-0.75	4.92	18.5	8	10.9	3.15	0.63	6.3	4.72	14.2	11	4.33	0.752	0.55	13.5	1.25	3.15	1.25	0.313	187.2
DN100/26	5	4	10	8.5	8-0.88	9	7.5	8-0.75	5.51	18.5	9	10.88	3.15	0.63	6.3	4.72	15.7	12.4	4.33	0.752	0.55	13.5	1.25	3.15	1.25	0.313	233.5
DN100/32	5	4	10	8.5	8-0.88	9	7.5	8-0.75	5.51	18.5	10	12.28	3.15	0.63	6.3	4.72	15.7	12.4	4.33	0.752	0.55	13.5	1.25	3.15	1.25	0.313	295.2
DN100/40	5	4	10	8.5	8-0.88	9	7.5	8-0.75	5.51	20.9	11	13.88	3.94	0.71	7.87	5.91	19.7	15.7	4.33	0.874	0.55	14.6	1.625	4.33	1.625	0.5	383.3
DN125/20	6	5	11	9.5	8-0.88	10	8.5	8-0.88	5.51	18.5	10	12.2	3.15	0.63	6.3	4.72	15.7	12.4	4.33	0.752	0.55	13.5	1.25	3.15	1.25	0.313	233.5
DN125/26	6	5	11	9.5	8-0.88	10	8.5	8-0.88	5.51	18.5	10	13.78	3.15	0.63	6.3	4.72	15.7	12.4	4.33	0.752	0.55	13.5	1.25	3.15	1.25	0.313	253.3
DN125/32	6	5	11	9.5	8-0.88	10	8.5	8-0.88	5.51	20.9	11	13.76	3.94	0.63	7.87	5.91	19.7	15.7	4.33	0.874	0.55	14.6	1.625	4.33	1.625	0.5	359.0
DN125/40	6	5	11	9.5	8-0.88	10	8.5	8-0.88	5.51	20.9	12.5	15.55	3.94	0.71	7.87	5.91	19.7	15.7	4.33	0.874	0.55	14.6	1.625	4.33	1.625	0.5	398.7
DN150/20	8	6	13.5	11.75	8-0.88	11	9.5	8-0.88	6.3	19.5	11	15.69	3.94	0.79	7.87	5.91	21.7	17.7	4.33	0.874	0.55	14.4	1.25	3.15	1.25	0.313	343.6
DN150/26	8	6	13.5	11.75	8-0.88	11	9.5	8-0.88	6.3	20.9	11	13.9	3.94	0.71	7.87	5.91	17.7	13.8	4.33	0.874	0.55	14.6	1.625	4.33	1.625	0.5	326.0
DN150/32	8	6	13.5	11.75	8-0.88	11	9.5	8-0.88	6.3	20.9	11	15.69	3.94	0.71	7.87	5.91	21.7	17.7	4.33	0.874	0.55	14.6	1.625	4.33	1.625	0.5	374.4
DN150/40	8	6	13.5	11.75	8-0.88	11	9.5	8-0.88	6.3	20.9	12.5	17.62	3.94	0.71	7.87	5.91	21.7	17.7	4.33	0.874	0.55	14.6	1.625	4.33	1.625	0.5	460.4



1320 Britannia Road East,
Mississauga, Ontario, Canada. L4W 1C8
Tel : (905) 461- 9617 Fax : (905) 461- 9618
Toll Free : 1-866-217-PUMP (7867)