

AIR OPERATED NON-LUBRICATED HYDRAULIC PUMP D-6 SERIES

SC Hydraulic Engineering is continuing to meet the demands of a changing market.

We strive to broaden our line of products without sacrificing the quality and longevity for which we have established an UN-equaled reputation.

We proudly present our new Non-lube version of our long established 10-5 and 10-6 series of high-pressure air-driven liquid pumps.

These new configurations represent the result of extensive testing under rigorous conditions.

While maintaining our long established profile, we have re-designed our cycling mechanism to allow optimum performance without any external lubricator.

The new model designations will include the actual ratio of each pump. A pump rated at 1,000 psig will have a number 10 as its suffix number reflecting a 10:1 ratio. Similarly, a pump ending in 35 is a 35:1 ratio pump rated at 3,500 psig.

The prices for Non-lube “D” series pumps will be **identical** to their lubed models, “10-5” and “10-6”. The performance curves and the pressure / flow data will also remain the same for both the “D” series and the “10-5” and “10-6” series.



Instructions for New Nomenclature

New “D” series of pumps. (“D”ry, non-lubricated)
The new non-lubricated pumps will all have the “D” to designate the Basic configuration which replaces the old familiar “10”.

SC will continue to use the “5” and “6” as prefixes to maintain series identification.

The various modifications will continue to have zeroes as spaces to include allowances for designations meeting specific requirements.

Nomenclature Examples New Models

Series Designation with Standard Model.

D-6000B35

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D-6 Series

0 Buna N seals Air Section

0 Buna N seals Hydraulic Section

0 Standard Pump (no modifications)

B Bronze Hydraulic Section

35:1 Ratio

Series Designation with Modifications

D-6VEBS35

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D-6 Series

V Viton Seals Air Section

E EPR Seals Hydraulic Section

B Bottom Inlet (modification)

S Stainless Steel Hydraulic Section

35:1 Ratio

Model Selection Table

Prefix: Series Identification

D-5 “5” Series

D-6 “6” Series

Table 1: Seal compound option air-drive section

0 Buna N (Standard)

V Viton

Table 2: Seal compound hydraulic section

0 Buna N (Standard)

E EPR

V Viton

Table 3: Modifications

0 Standard pump

A “A” modification

B Bottom inlet

D Bottom inlet-heavy duty

E Bottom inlet “A” modification

G Isolator-heavy duty

H Heavy duty

J Bottom inlet “K” modification

K “K” modification

M Bottom inlet “A” and “K” modification

N Isolator “A” modification

P Isolator “K” modification

Q Isolator “A” and “K” modification

R Isolator

S Heavy duty “K” modification

U Heavy duty-Bottom inlet “K” modification

V Heavy duty-Isolator “K” modification

Table 4: Materials of construction Hydraulic Sect.

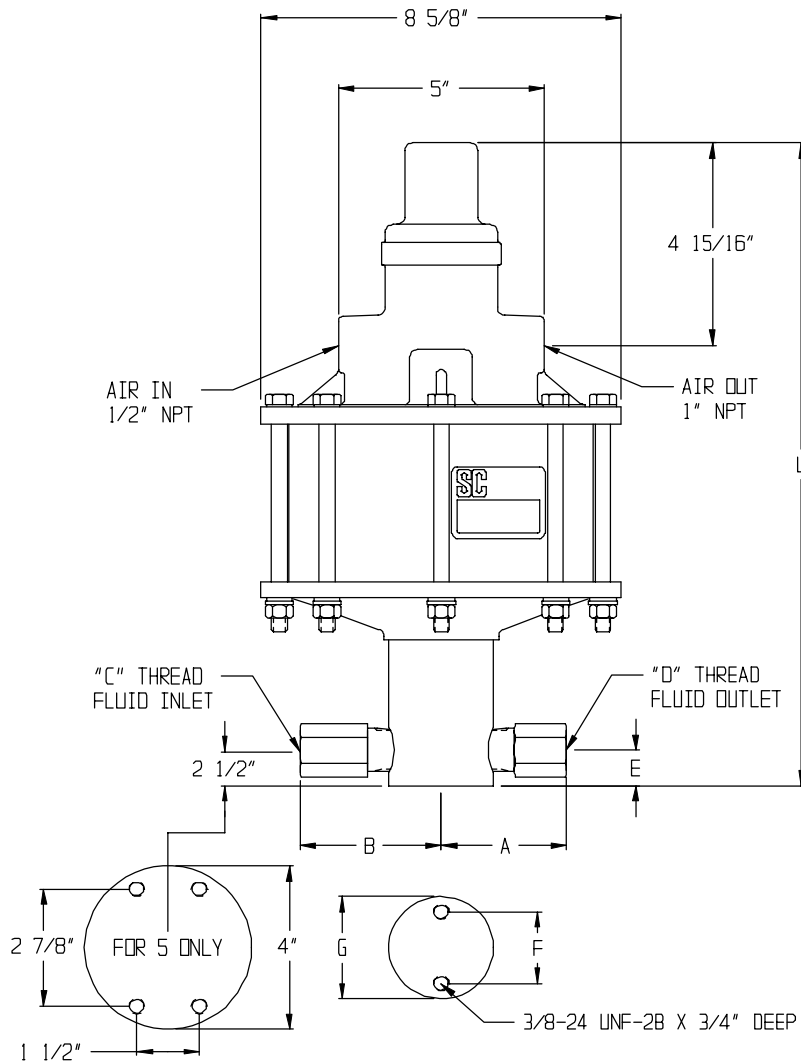
S Stainless Steel

B Aluminum Bronze (replaces “W”)

C Carbon Steel

(not available as standard, Consult factory)

AIR OPERATED NON-LUBRICATED HYDRAULIC PUMP D-6 SERIES



D-6 Series Ratio No.	L	A	B	C NPTF	D NPTF	E	F	G
5	19 5/8	4 7/8	2 3/8	1 1/4	1	1 1/2	---	4
10	18 5/8	4 3/4	4 3/8	1	1	1 3/8	2 3/8	3
20 thru 35	17 1/16	3	4	1	1/2	1	1 3/4	2 1/2
55 thru 180	15 3/4	3	3 3/8	1/2	1/2	7/8	1 3/4	2 1/2
240 and 330	16	2 1/2	2 5/16	3/8	3/8	7/8	1 3/4	2 1/2
460	16	3 3/4	2 5/16	3/8	9/16-18	7/8	1 3/4	2 1/2
740	16 1/4	4 1/4	2 5/16	3/8	9/16-18	1 1/8	2 3/8	3

D-6 Series Mounting Dimensions in Inches

D-6 Series Approximate Air to Hydraulic Pressure Ratios Static Conditions

D-6 Series Ratio	Air Pressure (PSI)									
	10	20	30	40	50	60	70	80	90	100
5	50	100	150	200	250	300	350	400	450	500
10	85	185	285	390	490	590	690	795	900	1,000
20	165	425	650	875	1,075	1,300	1,550	1,750	1,950	2,150
25	180	450	725	1,000	1,300	1,550	1,850	2,125	2,400	2,700
35	250	625	1,025	1,400	1,800	2,150	2,500	2,850	3,250	3,600
55	450	1,050	1,700	2,275	2,900	3,500	4,100	4,650	5,200	6,000
95	750	1,750	2,800	3,700	4,750	5,900	6,875	7,700	8,750	9,700
145	1,100	2,600	4,200	5,550	7,100	8,500	10,000	11,500	12,950	14,400
180	1,500	3,200	5,200	7,100	9,000	10,800	12,500	14,500	16,300	18,000
240	1,910	4,400	6,900	9,100	11,600	14,000	16,400	18,800	21,300	23,700
330	3,000	6,000	9,500	12,600	16,000	19,100	22,300	25,600	29,000	32,300
460	4,000	8,800	13,750	18,000	22,500	27,000	31,500	36,500	41,400	45,800
740	6,000	13,000	21,000	27,000	34,000	40,500	46,000	52,000	59,000	65,000

Note: When operating from 0 to rated hydraulic pressure, air consumption will be approx. 56 scfm of free air at 100 psi input. At lower air pressures and higher hydraulic pressure air consumption will reduce proportionately.

D-6 Series Measurements

D-6 Series Model (Ratio)	Hydraulic Piston Diameter (inches)	Hydraulic Piston Area (Sq.inches)	Volume Per Stroke (Cubic inches)
5	3.0000	7.070	17.700
10	2.1250	3.560	8.900
20	1.4375	1.620	4.050
25	1.3150	1.350	3.380
35	1.1250	0.994	2.490
55	0.8750	0.601	1.500
95	0.6875	0.371	0.928
145	0.5625	0.249	0.623
180	0.5000	0.196	0.490
240	0.4375	0.150	0.375
330	0.3750	0.110	0.275
460	0.3125	0.077	0.193
740	0.2500	0.049	0.123

Additional Information on “D” Series Pumps

Please find the following information for:

Circuit Diagram

Cutaway Drawing

Special and Modified Pumps

Performance Curves

Available in the 10-5 and 10-6 **Technical Data Areas**.

All of the above information for the 10-5 and 10-6 is identical to the D-5 and D-6.