



HYDRAULIC PRESSURE LOSS THROUGH HYDRAULIC HOSES

Hose Pressure Drop*

The chart below shows pressure in PSI for 10 feet of hose (smooth bore) without fittings.

Fluid specification: Specific gravity = .85; Viscosity = ν = 20 centistokes (C.S.), (20

C.S.=97 S.S.U.); ref MIL-H5606, +70°F (+21°C).

Flow: US gallons per minute (gpm).

Hose pressure drop in PSI per 10 feet of hose length.

Hose Size	-03	-04	-05	-06	-08	-10	-12	-16	-20	-24	-32	-40	-48
Hose I.D. (in)	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1	1-1/4	1-1/2	2	2-1/2	3
DN	5	6	8	10	12	16	20	25	32	40	50	63	80
US gallons per minute	.25	10	3.1										
	.50	19	6	2.7									
	1	40	12	5.5	2.4								
	2	95	24	10	4.8								
	3	185	46	17	7	2.2							
	4		78	29	12	3	1.2						
	5		120	44	18	4.5	1.6	0.7					
	8			95	39	10	3.6	1.4					
	10				59	15	5.7	2	0.6				
	12				80	20	7.2	2.6	0.8				
	15					30	10	4.2	1.2	0.4			
	18					40	15	6.3	1.5	0.6			
	20					49	19	8	2	0.7	0.3		
	25					72	26	11	3	1	0.4		
	30						34	14	3.6	1.3	0.5	0.1	
	35						47	19	5	1.7	0.7	0.2	
	40							25	6.5	2.2	0.9	0.2	
	50							36	9	3.3	1.3	0.4	0.2
	60							50	12	4.4	1.8	0.5	0.2
	70								17	6	2.4	0.7	0.3
	80								21	7.1	3	0.8	0.3
	90								27	9	3.8	1	0.5
	100								33	12	4.7	1.3	0.6
	150								60	22	8.5	2.2	1
	200									36	15	3.9	1.7
	250									54	22	5.3	2.5
	300										29	7.5	4
	400										51	14	6.5
	500											20	10
	800												18
	1000												

★ Pressure drop values listed are typical of many petroleum based hydraulic oils at approximately +100° F (+38° C). Differences in fluids, fluid temperature and viscosity can increase or decrease actual pressure drop compared to the values listed.