

SCHEDULE 120 PVC DROP PIPE

Threaded (NPT) Male x Male

Recommended Maximum Setting Depth vs. Discharge Pressure Schedule 120 Threaded (NPT) PVC Drop Pipe

Nominal Pipe Size (in.)	OD (in.)	Minimum Wall (in.)	Approx. Weight (lbs./ft.)	Pressure Rating (PSI)	Recommended Maximum Depth* (Feet) vs. Discharge Pressure (psi) @ 8fps			
					30 psi	40 psi	50 psi	60 psi
1	1.315	0.200	0.45	360	590	570	550	530
1.25	1.660	0.215	0.63	300	510	490	470	450
1.5	1.900	0.225	0.75	270	470	450	430	410
2	2.375	0.250	1.03	240	420	400	380	360
3	3.500	0.350	2.18	220	400	380	360	340
4	4.500	0.437	3.52	220	410	390	370	340

* Caution should be used if flows are higher than 5 fps since turbulent flow and damaging surge pressures can result.

The pressure ratings shown in the table above are for pipe at 73 degrees F with water only and utilizing correct fittings for the application. Systems that include flanges or exposure to higher temperatures will require de-rating of the entire system. Consult with Johnson Screens for any applications that are outside the recommendations shown above.

Nominal Pipe Size (in.)	8fps Flow Rate (GPM)	Pump HP for 50 psi, 8fps & max depth
1	16	5
1.25	30	5
1.5	41	8
2	69	10
3	154	30
4	259	50

Assembly Tips:

- Use correct size and material coupling for the application to join each length of pipe.
- Apply a good quality non-petroleum pipe paste sealant approved for PVC, to each thread joint.
- Do not preassemble pipe lengths. Assemble one length at a time in a vertical position.
- Tighten joints 1 to 2 turns beyond finger tight.
- **DO NOT OVER TIGHTEN!**
- See reverse side for storage and handling instructions.

- **Water Hammer Suppressors, 100 psi pressure relief valves (placed within 30 ft of well head), Torque Arrestors and/or soft start controls are always recommended for PVC pipe (required for 40 HP or higher pumps).**
- Drop Pipe pump size is limited by the pump weight that the Drop Pipe can support at a particular well depth as long as all above recommendations are followed.
- Good system design will take into consideration appropriate outlet flow rates and pressures when selecting pump size.
- Information above only applies for Johnson Screens products stored, handled and installed correctly.
- Contact your local Johnson Screens for higher or lower pressures and other different system design conditions.

PVC HANDLING & STORAGE

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Thermoplastic pipe and fittings may be stored indoors or outside in yards. If stored outdoors, pipe and fittings should be protected from direct exposure to sunlight, and pipe should be properly supported in storage to prevent sagging or bending. Pipe should be stored at the job site on level ground. Caution must be exercised to avoid compression, damage or deformation. When unit packages are stacked, care must be used to ensure that the weight of the upper units does not cause deformation to pipe in the lower units (i.e. stack palletized pipe wood on wood). Package units should not be stacked more than 8 feet (2.4 m) high. Care must be used to ensure that the height of the stack does not result in instability, which can cause collapse, pipe damage or personnel injury. Unit packages should be supported by wooden racks or other suitable means, and spaced properly to prevent damage.

Thermoplastic pipe must not be stored in tightly enclosed areas subject to elevated temperatures or close to heat producing sources such as heaters, boilers, steam lines, engine exhaust, etc. Exposure to excessive temperatures will result in distortion and deformation of the product. When stored outdoors thermoplastic pipe must be covered with a non-transparent material. This covering must provide adequate air circulation above and around the pipe as required to prevent excessive heat absorption that can result in discoloration and deformation of the product. PVC piping products in storage should not be exposed to temperatures above 150°F (66°C).

WEATHERABILITY

UV radiation results in: a color change to the product; a slight increase in tensile strength; a slight increase in modulus of tensile elasticity, and a slight decrease in impact strength. UV degradation occurs only in the PVC material directly exposed to the UV radiation and to extremely shallow penetration depths (frequently less than 0.001 inch (0.025 mm)). UV degradation does not continue when exposure to UV is terminated. UV radiation will not penetrate even thin shields such as paint coatings, clothing or wrapping. Use of oil based paints is not recommended.

JOINING THREADED CONNECTIONS

Do not preassemble pipe lengths. Assemble one length at a time in a vertical position. Always use elevators, clamps, strap wrench and tools designed for PVC when handling PVC casing, screens or drop pipe.

For non-environmental applications: The use of a quality Teflon® pipe paste sealant approved for PVC is required for leak-tight connections. NOTE: Some oil base pipe joint compounds and/or Teflon pastes contain ingredients that attack PVC piping products. Assurances should be obtained from the manufacturer of the thread sealants that long-term tests with either PVC show no deleterious effects.

Special examination should be made for environmental stress cracking. Suitability of thread paste compounds for use with plastics must be clearly established prior to use. Care must be used to avoid over-torquing during assembly. ASTM specifications call for 1 to 2 turns beyond finger tight is all that is required to obtain a leak-tight seal for most pipe sizes. Factory testing has indicated that 10 to 25 ft.-lbs. of torque is typically adequate to obtain a leak free seal. The use of a strap-wrench is recommended. Do not use pipe wrenches that dig or cut into the PVC. Larger sizes will usually not make up as much by hand and will require more wrench make up.

WARNING

Improper use of tools normally used with metal piping systems, i.e. hacksaws, water pump pliers, pipe wrenches, etc. can cause damage to plastic pipe and fittings. Visible and non-visible fractures, scoring or gouging of material, and over tightening of plastic threaded connections are some of the major problems associated with the use of incorrect tools and/or procedures.



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