

BYPASS VALVE

→ Bypass valve is used to fill and dump the drill string during drilling to round-trips. This valve can be supplied separately or together with the motor.

FEATURES

→ The valve is mounted on the mud motor's top sub. If there is no pressure difference between the drill string and tubing annulus during mud motor's round trip, the valve piston is held in the upper position by spring power and the interior of the string communicates with tubing annulus via valve's hole pattern (the valve is open). During run-in-hole stage the drillstem is filled with annulus mud. When running out the mud goes to tubing annulus.

→ When mud is delivered to the drillstring the piston goes down due to pressure difference. The holes pattern of the piston is overlapped and annulus is isolated from the string's interior (valve is closed). The valve stays closed until there is pressure in the drill string. After pumps are turned off and the pressure lowers, the valve's piston goes up, opening the valve.

Valve type	KP75-SR	KP95-SR	KP106-SR	KP120-SR	KP-165SR	KP-172SR	KP-203SR
Applicability (Mud motor size), mm	75	95/96	106	120/127	165	172/195	210/240
Outside diameter D, mm	78	106	106	121	168	176	203
Minimum drift diameter d, mm	15	28	28	28	50	50	55
Total length, mm	461	676	614	477	767	567	587
Bogy length, mm	385	600	525	375	653	440	460
Box	3-65	3-86	3-86	3-102	3-133	3-147	3-171
Pin	3-65	3-73	3-86	3-102	3-133	3-147	3-171
Mud flow-rate, l/sec	3...5	5...10	5...12	10...20	14...29	25...37	30...75
Mud sand content %, max	1	1	1	1	1	1	1
Bypass opening pressure differentiation, kgf/cm ²	2.1±0.2	2.1±0.2	2.1±0.2	2.1±0.2	2.1±0.2	2.1±0.2	2.1±0.2
Weight, kg	11	25	26	28	76	76	81