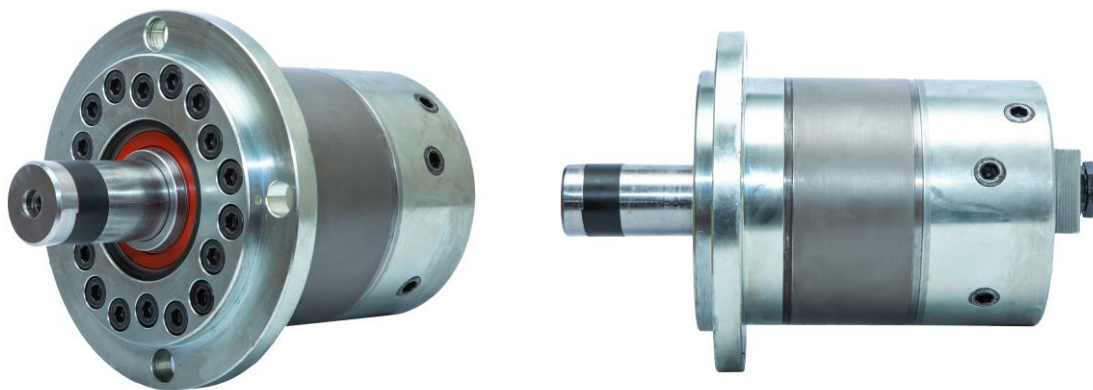

HYDRAULIC SATELLITE MOTORS of the SMW type



Device description:

The use of SM Hydro Group's satellite hydraulic motors expands the possibilities and range of applications of power hydraulics in the broadest sense. The distinguishing feature of SM Hydro Group's satellite hydraulic motors is their internal structure and the possibility of feeding fluids with significantly lower viscosity and lubricity than mineral and synthetic oils. Among the fluids that can act as a feed medium in addition to the frequently used water-oil emulsions of the HFA type are also vegetable oils.

SM Hydro Group is the only global manufacturer of a range of hydraulic satellite motors covering a wide range of sizes; from very small displacements, i.e. $1.8 \text{ cm}^3/\text{rev}$ to $420 \text{ cm}^3/\text{rev}$. The main part of production, however, consists of smaller motors. This is due to market demand for drive units to drive hand-held hydraulic tools, mainly in underground mining, where water-oil emulsion-powered hydraulic systems are available. Satellite hydraulic motors also drive a range of other higher-powered equipment, allowing the elimination of cumbersome and hazardous electric motors.

MANUFACTURE AND SERVICE

Grupa SM Hydro

ul. Karolinki 10B, 40-467 Katowice

tel.: +48 (32) 353 03 75

e-mail: biuro@smhydro.com.pl

www.smhydro.com.pl

Distinguive features of SMW-type hydraulic satellite motors:

- possibility to feed liquids with low viscosity and lubricity such as HFA emulsions, vegetable oils, etc,
- high speed range and supply pressure, stable operation in the very low speed range,
- higher resistance to contamination of the working fluid in relation to gerotor motors - possibility of using medium fine filters (100 µm),
- favourable motor weight-to-power ratio,
- economically advantageous long-term operation through cheap and easy regeneration guaranteeing 100% technical recovery.

All SMW-type motors are suitable for operation on HFA water-oil emulsion. They can also be operated with hydraulic and also vegetable oils.

It is possible to manufacture the mounting flange, hydraulic connections and shaft stub in a different configuration, according to the customer's specifications.

***SMW type hydraulic satellite motors can operate
in potentially explosive atmospheres***



Detailed information on motors range can be found at www.smhydro.com.pl

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Technical characteristics of hydraulic satellite motors of the SMW type:

MOTOR TYPE	GEOMETRIC DISPLACEMENT	NOMINAL TORQUE*	NOMINAL SUPPLY PRESSURE**	MOTOR SPEED RANGE	PRESURE AT OUTFLOW	WEIGHT
	ccm/rev	Nm	MPa	rev/min	MPa	kg
	1	2	4	3	6	7
SMW 0,4/5	1,78	5,2	22	2 ÷ 3000	0-2	1,0 +/- 0,2
SMW 0,4/7,5	2,67	8,0				
SMW 0,4/10	3,56	11,0				
SMW 0,4/15	5,34	16,7				
SMW 0,4/20	7,12	22,0				
SMW 0,4/25	9,00	27,5				
SMW 0,5/5	2,9	7,5	22	2 ÷ 2500	0-2	1,5 +/- 0,3
SMW 0,5/7,5	4,4	12,4				
SMW 0,5/10	5,8	17,0				
SMW 0,5/15	8,7	25,5				
SMW 0,5/20	11,6	34,0				
SMW 0,5/25	14,5	45,0				
SMW 0,6/10	8,3	24,0	22	2 ÷ 2000	0-2	3,5 +/- 0,5
SMW 0,6/15	12,5	36,5				
SMW 0,6/20	16,7	50,0				
SMW 0,6/25	20,9	63,0				
SMW 0,6/30	25,1	74,0				
SMW 0,7/20	26,3	77,5	22	2 ÷ 1500	0-2	3,6 +/- 0,5
SMW 0,7/25	32,9	100,0		2 ÷ 1200		
SMW 0,7/30	39,5	115,0				
SMW 0,7/40	52,0	153,0				
SMW 1,0/25	57,0	170,0	22	2 ÷ 1000	0-2	7,7 +/- 0,5
SMW 1,0/30	70,0	206,0		2 ÷ 800		
SMW 1,0/40	92,5	274,5				
SMW 1,0/50	116,0	343,0				
SMW 1,2/40	135,0	378,0	22	2 ÷ 600	0-2	14,5 +/- 0,7
SMW 1,2/50	176,0	475,0				
SMW 1,2/60	200,0	563,0				
SMW 1,5/60	313,0	870,0	22	2 ÷ 400	0-2	29,0+/- 0,9
SMW 1,5/70	365,0	1020,0				
SMW 1,5/80	420,0	1180,0				

*Torque is not a constant value and depends on the rotational speed. The values quoted refer to ½ of the nominal speed.

**When fed with low-percentage HFA emulsion, continuous operation at pressures higher than nominal results in accelerated wear of the toothed working mechanism of the motor. Pressures higher than nominal in continuous operation are recommended only when fed with hydraulic oils