









Air Tools

To use in Robots and Automated Machines

Drilling type 80 to 600 Watts
Grinding type 90 to 300 Watts
Milling type 400 to 1000 Watts

Catalogue PDE3704TCUK



Parker

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Important
Before carrying out service activities, make sure the air motor is vented. Before disassembling the motor, disconnect the primary air hose to ensure that the air supply is interrupted.

Note
All technical data in the catalogue are typical values.
The air quality is a major factor in the service life of the motor, see ISO 8573-1.

WARNING

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P1V-S - Drilling, Grinding & Milling Air Motors

Introduction

A large number of drilling motors, milling motors and grinding motors have been developed using the P1V-S as the base motor in order to make it easier to install air motors in machining applications. These motors are all equipped with standard vanes for intermittent lubrication-free operation, although it is recommended to use oil mist if you are planning to operate them for extended periods.

NOTE! These motors are not made of 100% stainless steel.

Drilling motors are available with power ratings of 80, 170, 250, 400 and 600 Watts, and several different speeds for the machining of a range of materials. They can be fitted with collet chucks, drill chucks and quick-release chucks. Many of them also have accessories allowing the exhaust air to be removed.

The milling motor, with a power rating of 400 Watts, runs at a relatively high speed, and is fitted with a collet chuck for a shaft diameter of 8 mm. It is equipped with strong bearings able to handle greater shear forces on the spindle.

The grinding motor, with a power rating of 200 Watts, is fitted with a collet chuck for a shaft diameter of 8 mm and runs at a relatively high speed. It is equipped with strong bearings able to handle greater shear forces on the spindle.

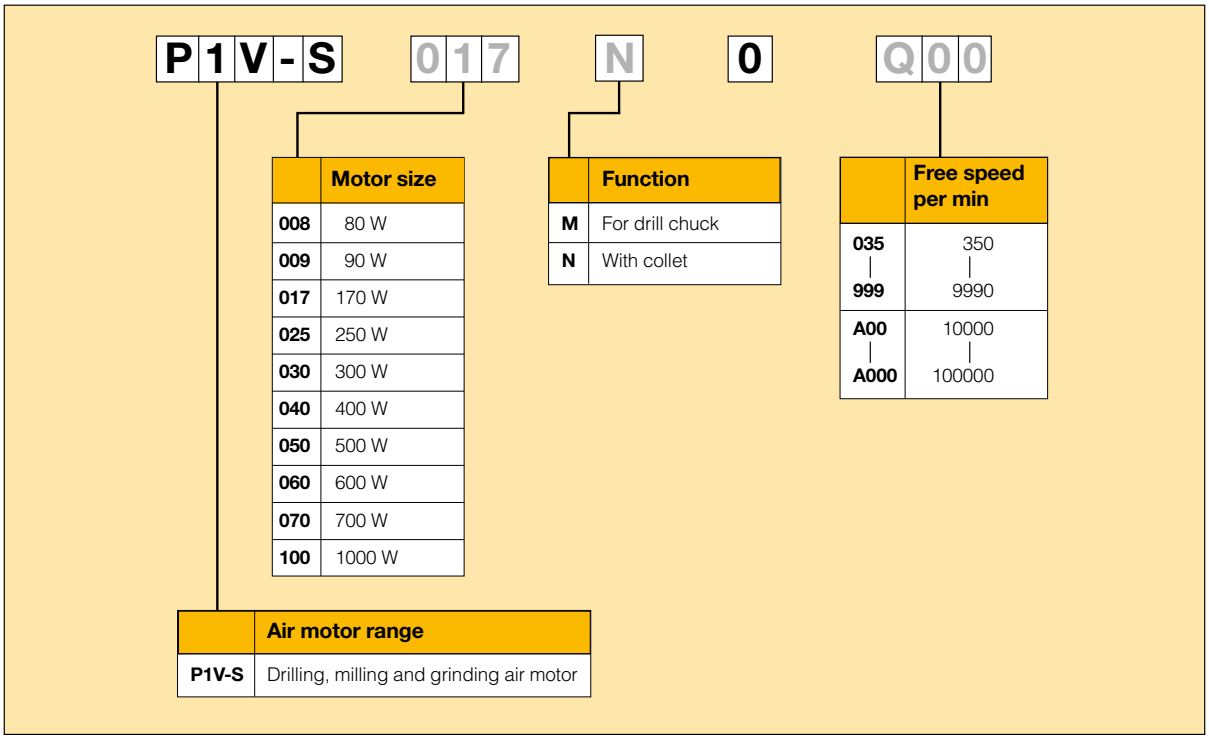
The design principle of the 90 Watt grinding motor is different from the others. The turbine principle means that high speeds are possible without the need for lubrication.

Feed movement in drilling, milling and grinding motors

A slow and even feed movement is necessary in machining applications. During drilling, the feed must not uncontrollably speed up once the drill breaks through the material. One good way of solving the problem is to use a pneumatic cylinder for the feed, which is able to provide force during drilling and a rapid approach before the actual drilling phase. Feed during the drilling phase is controlled using a hydraulic brake cylinder (HYDROCHECK) fitted in parallel with the pneumatic cylinder. This provides even, slow and safe feed movement, without the risk of the uncontrolled feed described above.

Order Code Key

(This model code can not be used for creating new part numbers.
All possible combinations between motor size, function and free speed are in the next pages).



	Motor size
008	80 W
009	90 W
017	170 W
025	250 W
030	300 W
040	400 W
050	500 W
060	600 W
070	700 W
100	1000 W

	Function
M	For drill chuck
N	With collet

	Free speed per min
035 | 999	350 | 9990
A00 | A000	10000 | 100000

	Air motor range
P1V-S	Drilling, milling and grinding air motor

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P1V-S - Drilling, Grinding & Milling Air Motors

Technical data (all air motors are non reversible, right rotation only)

Air motor size & type	P1V-S008	P1V-S017	P1V-S025	P1V-S040	P1V-S060	P1V-S009*	P1V-S015	P1V-S025	P1V-S030	P1V-S040	P1V-S050	P1V-S070	P1V-S100
Air motor type	**Drilling**					**Grinding**					**Milling**		
Nominal power (watts)	80	170	250	400	600	90	150	250	300	400	500	700	1000
Working pressure (bar)	3 to 7												
Working temperature (°C)	-20 to +110												
Ambient temperature (°C)	-20 to +110												
Air flow required (Nl/min)	230	300	350	420	850	120	300	350	380	420	700	900	1100
Min pipe ID, inlet (mm)	4	6	6	10	12	4	6	6	6	10	10	10	10
Min pipe ID, outlet (mm)	4	6	6	10	12	4	6	6	6	10	10	10	10
	Choice of treatment unit: recommended min air flow (l/min) at p1 7.5 bar and 0.8 bar pressure drop												
	260	340	400	500	950	140	340	400	440	500	800	1020	1250
	Choice of valve: recommended min nominal air flow (l/min) at p1 6 bar and 1 bar pressure drop												
	290	380	450	580	1050	160	380	450	510	580	900	1140	1400
Medium	40µm filtered, oil mist or dry unlubricated compressed air												
Oil free operation, indoor	ISO8573-1 purity class 3.4.1												
Oil free operation, outdoor	ISO8573-1 purity class 1.2.1												
Oil operation	1-2 drop per cube meter, ISO8573-1 purity class 3.-.5												
Recommended oil	Foodstuffs industry Klüber oil 4 UH1- 32 N												
Sound level free outlet (dB(A))	-	-	-	-	-	-	-	-	-	-	-	-	-
With outlet silencer (dB(A))	85	74	76	75	94	72	85	76	-	75	-	-	-
Exhaust air removed with pipes to another room	71	70	71	73	76	-	73	71	79	73	79	79	80

Note: sound levels are measured at free speed with the measuring instrument positioned 1 meter away from the air motor at an height of 1 meter.

* Un lubricated for grinding air motor P1V-S009.

Table and diagram data

All technical data are based on a working pressure of 6 bar and with oil. Oil-free performances are -10 to 15% lower.
Data tolerance accuracy -+10%

Material specification

Air motor size	P1V-S008	P1V-S017	P1V-S025	P1V-S040	P1V-S060	P1V-S009*	P1V-S015	P1V-S025	P1V-S030	P1V-S040	P1V-S050	P1V-S070	P1V-S100
Air motor type	**Drilling**					**Grinding**					**Milling**		
Housing	Stainless steel X12Cr13	High grade steel (not stainless)	Stainless steel X12Cr13			High grade steel (not stainless)					Stainless steel X12Cr13		
Shaft, collet	Hardened steel (not stainless)												
Shaft for drill chuck	Hardened and tempered steel (not stainless)												
Collet	Hardened and tempered steel (not stainless)												
All internal parts	High grade steel (not stainless)												
Accessories	Surface treated steel, plastic and aluminium												

Accessories	P1V Drilling air motors
Flange bracket	Stainless steel
Foot bracket	Stainless steel
Screws for the mountings	Stainless steel DIN A2

Permitted shaft loadings

Drilling, milling and grinding motors

Max. permitted load on output shaft for motors (based on 10 000 000 rpm at input shaft with 90 % probable service life for ball bearings).

Drilling motors with collet

Order code	Fax [N]	Frad [N]	a [mm]
P1V-S008N0* **	200	75	25
P1V-S017N0* **	380	50	25
P1V-S025N0* **	750	220	25

Grinding motors with collet

Order code	Fax [N]	Frad [N]	a [mm]
P1V-S009N0A000	15	30	25
P1V-S015N0AQ0	15	30	25
P1V-S025N0Z00	25	50	25
P1V-S030N0* **	20	40	25

Milling motors with collet

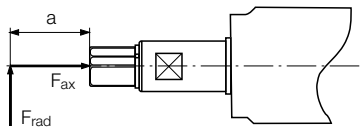
Order code	Fax [N]	Frad [N]	a [mm]
P1V-S040N0L00	750	150	25
P1V-S050N0L00	25	50	25
P1V-S070N0N00	40	90	25
P1V-S100N0F30	55	120	25

Drilling motors for drill chuck

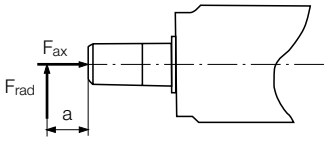
Order code	Fax [N]	Frad [N]	a [mm]
P1VAS060M0400	800	350	80
P1VAS060M0300	800	350	80
P1VAS060M0200	800	350	80
P1VAS060M0070	800	350	80
P1VAS060M0050	800	350	80
P1VAS060M0034	800	350	80
P1VAS060M0018	800	350	80

Frad = Radial loading (N)
Fax = Axial loading (N)
a = distance from shaft's end (mm)

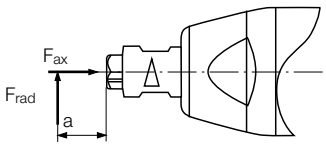
Collet



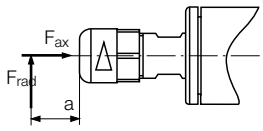
Drill chuck



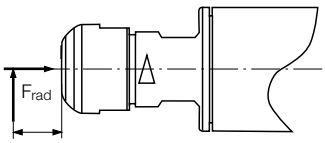
Collet



Collet



Collet



Load on output shaft for drilling, milling and grinding motors.

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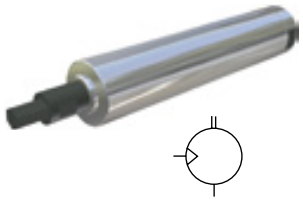
Drilling motor with collet P1V-S008N

Our smallest and most versatile drilling motor for small-scale drilling operations. The standard collet chuck is for 3 mm shaft diameter. For other diameters, select a different collet chuck as an accessory. The motor has a port for a 6 mm hose to remove the exhaust air to a silencer.



Note! All technical data are based on a working pressure of 6 bar and with oil. For oil-free performances are -10 to 15% lower. Data tolerance accuracy -+10%

Data for drilling motor with collet P1V-S008N

Max power [kW]	Free speed [rpm]	Version	Drilling in steel [mm]	Drilling in aluminium [mm]	Air consumption at max power [l/s]	Conn.	Min pipe ID	Weight	Order code
0.080	22000	Collet 3 mm	-	3	3.8	M8x0.75*	4	0.20	**P1V-S008N0N00**
0.080	6000	Collet 3 mm	3	3	3.8	M8x0.75*	4	0.20	**P1V-S008N0600**
0.080	1900	Collet 3 mm	3	3	3.8	M8x0.75*	4	0.22	**P1V-S008N0190**
0.080	1300	Collet 3 mm	3	3	3.8	M8x0.75*	4	0.22	**P1V-S008N0130**

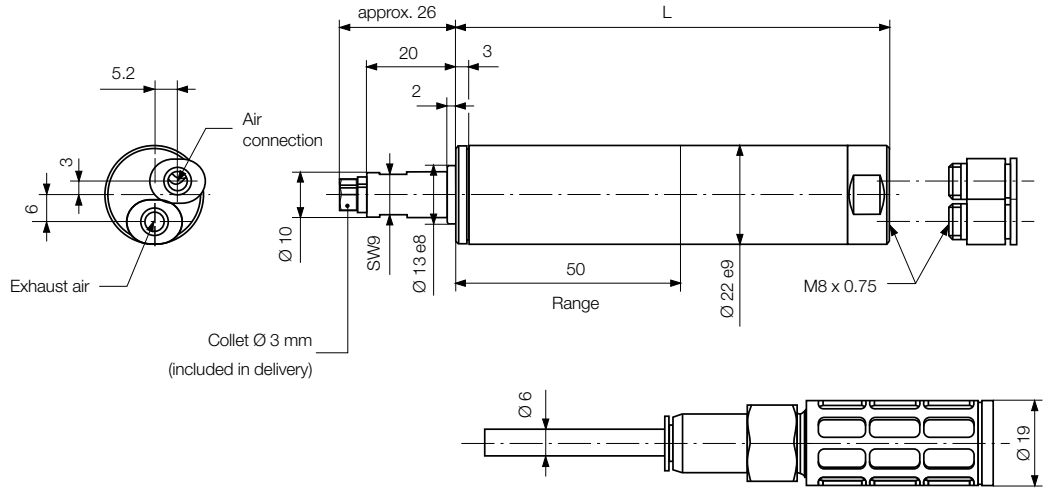
* 2 push in nipples for plastic pipe Ø 6/4 supplied

Accessories for drilling motor with collet P1V-S0008N

Name	Order Code
Collet Ø 2 mm	**P1V-6/314693**
Collet Ø 3 mm	**included with the motor**
Collet Ø 4mm	**P1V-6/3024741**
Collet Ø 3/32"	**P1V-6/314694**
Collet Ø 1/8"	**P1V-6/ 314407**

Dimensions (mm)

Drilling motor with collet P1V-S008N



	A	B
P1V-S008N0N00, P1V-S008N0600	98	96
P1V-S008N0190, P1V-S008N0130	107	105

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Drilling motor with collet P1V-S017N

A small drilling motor for small-scale, lighter drilling operations.
The standard collet chuck is for 6 mm shaft diameter.
For other diameters, select a different collet chuck as an accessory.
The motor has a built-in silencer for exhaust air. If lower noise levels are required, or if you want the exhaust air to be collected, the relevant accessories are available.



Note! All technical data are based on a working pressure of 6 bar and with oil. For oil-free performances are -10 to 15% lower. Data tolerance accuracy -+10%



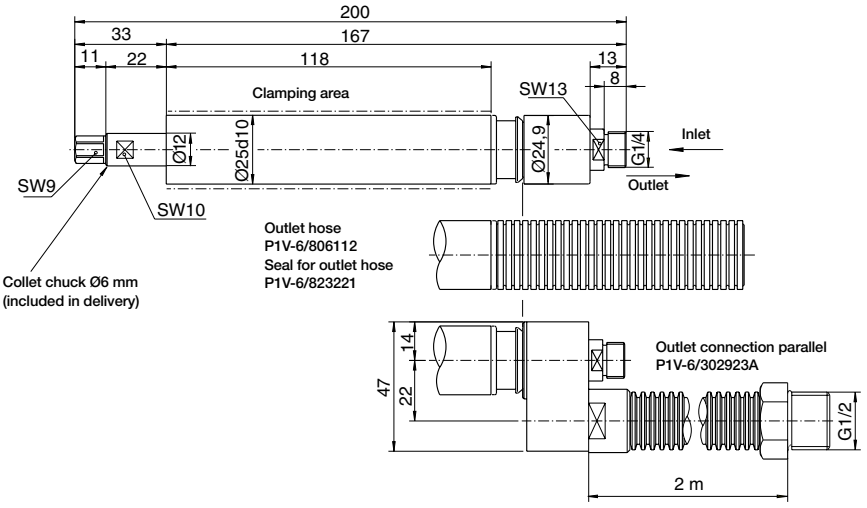
Data for drilling motor with collet P1V-S017N

Max power kW	Free speed [rpm]	Version	Drilling in steel [mm]	Drilling in aluminium [mm]	Air consumption at max power [l/s]	Conn.	Min Pipe ID [mm[	Weight [kg]	Order Code
0.170	24000	Collet 6 mm	-	4	5.0	G1/4o	6	0.38	**P1V-S017N0Q00**
0.170	6000	Collet 6 mm	3	5	5.0	G1/4o	6	0.38	**P1V-S017N0600**
0.170	4000	Collet 6 mm	4	6	5.0	G1/4o	6	0.38	**P1V-S017N0400**
0.170	1500	Collet 6 mm	4	6	5.0	G1/4o	6	0.43	**P1V-S017N0150**
0.170	1000	Collet 6 mm	4	6	5.0	G1/4o	6	0.43	**P1V-S017N0100**
0.170	660	Collet 6 mm	4	6	5.0	G1/4o	6	0.43	**P1V-S017N0066**

Accessories for drilling motor with collet P1V-S017N

Name	Order Code
Collet Ø 2 mm	**P1V-6/312679**
Collet Ø 3 mm	**P1V-6/312681**
Collet Ø 4 mm	**P1V-6/312684**
Collet Ø 5 mm	**P1V-6/312686**
Collet Ø 6 mm	**included with the motor**
Collet Ø 1/8"	**P1V-6/312682**
Collet Ø 1/4“	**P1V-6/312689**
Collet Ø 3/32“	**P1V-6/313742**
Other accessories	
Outlet hose	**P1V-6/806112**
Seal for outlet hose	**P1V-6/823221**
Outlet connection parallel	**P1V-6/302923A**

Dimensions (mm) - Drilling motor with collet P1V-S017N



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Drilling motor for drill chuck P1V-S017M

A small drilling motor for small-scale, lighter drilling operations.
Select drill chucks as accessories.
The motor has a built-in silencer for exhaust air. If lower noise levels are required, or if you want the exhaust air to be collected, the relevant accessories are available.



Note! All technical data are based on a working pressure of 6 bar and with oil. For oil-free performances are -10 to 15% lower. Data tolerance accuracy -+10%



Data for drilling motor for drill chuck P1V-S017M

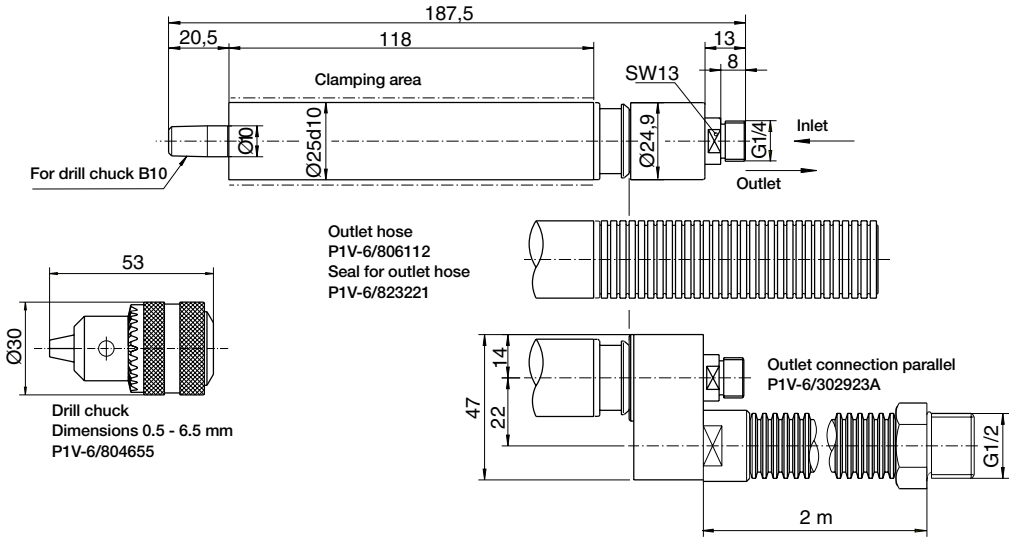
Max power [kW]	Free speed [rpm]	Version	Drilling in steel [mm]	Drilling in aluminium [mm]	Air consumption at max power [l/s]	Conn.	Min pipe ID	Weight	Order code
0.170	6000	For drill chuck B10	3	5	5,0	G1/40	6	0,38	**P1VAS017M0600**
0.170	4000	For drill chuck B10	4	6	5,0	G1/40	6	0,38	**P1VAS017M0400**
0.170	1500	For drill chuck B10	4	6	5,0	G1/40	6	0,43	**P1VAS017M0150**
0.170	1000	For drill chuck B10	4	6	5,0	G1/40	6	0,43	**P1VAS017M0100**
0.170	660	For drill chuck B10	4	6	5,0	G1/40	6	0,43	**P1VAS017M0066**

Accessories for drilling motor for drill chuck P1V-S017M

Name	Order Code
Standard drill chuck	
Diameters 0.5 – 6.5 mm/B10	**P1V-6/804655**
Quick release chuck	
Diameters 0-6.5 mm/B10	**P1V-6/805986**
Other accessories	
Outlet hose	**P1V-6/806112**
Seal for outlet hose	**P1V-6/823221**
Outlet connection parallel	**P1V-6/302923A**

Dimensions (mm)

Drilling motor for drill chuck P1V-S017M



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Drilling motor with collet P1V-S025N

A small drilling motor for moderately heavy drilling operations.
The standard collet chuck is for 6 mm shaft diameter.
For other diameters, select a different collet chuck as an accessory.
The motor has a built-in silencer for exhaust air. If lower noise levels are required, or if you want the exhaust air to be collected, the relevant accessories are available.





Note! All technical data are based on a working pressure of 6 bar and with oil. For oil-free performances are -10 to 15% lower. Data tolerance accuracy -+10%

Data for drilling motor with collet P1V-S025N

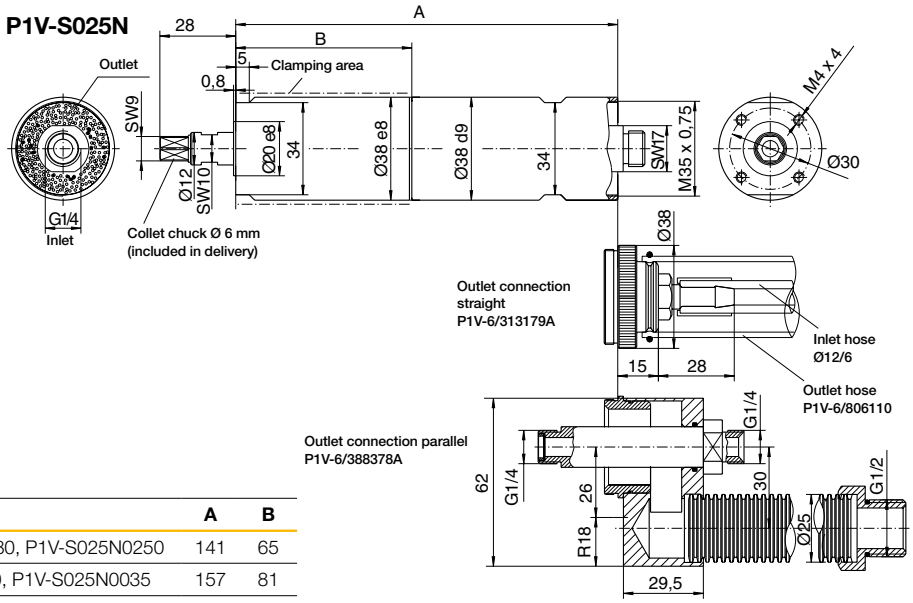
Max power [kW]	Free speed [rpm]	Version	Drilling in steel [mm]	Drilling in aluminium [mm]	Air consumption at max power [l/s]	Conn.	Min pipe ID	Weight	Order code
0.250	17000	Collet 6 mm	-	6	6.3	G1/40	6	0.80	**P1V-S025N0H00**
0.250	4800	Collet 6 mm	4	6	6.3	G1/40	6	0.80	**P1V-S025N0480**
0.250	2500	Collet 6 mm	6	6	6.3	G1/40	6	0.80	**P1V-S025N0250**
0.250	1400	Collet 6 mm	6	6	6.3	G1/40	6	0.90	**P1V-S025N0140**
0.250	700	Collet 6 mm	6	-	6.3	G1/40	6	0.90	**P1V-S025N0070**
0.250	350	Collet 6 mm	6	-	6.3	G1/40	6	0.90	**P1V-S025N0035**

Accessories for drilling motor with collet P1V-S025N

Name	Order Code
Collet Ø 3 mm	**P1V-6/312681**
Collet Ø 4 mm	**P1V-6/312684**
Collet Ø 4.5 mm	**P1V-6/312685**
Collet Ø 5 mm	**P1V-6/312686**
Collet Ø 6 mm	**included with the motor**
Collet Ø 1/8"	**P1V-6/312682**
Collet Ø 1/4"	**P1V-6/312689**
Other accessories	
Outlet connection straight	**P1V-6/3131179A**
Outlet hose Ø 23 x 28 mm 0.75 m long	**P1V-6/806110**
Outlet hose	**P1V-6/823221**
Outlet connection parallel	**P1V-6/388378A**

Dimensions (mm)

- Drilling motor with collet P1V-S025N



	A	B
P1V-S025N0H00, P1V-S025N0480, P1V-S025N0250	141	65
P1V-S025N0140,P1V-S025N0070, P1V-S025N0035	157	81

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Drilling motor for drill chuck P1V-S025M

A small drilling motor for moderately heavy drilling operations.
The standard collet chuck is for 6 mm shaft diameter.
For other diameters, select a different collet chuck as an accessory.
The motor has a built-in silencer for exhaust air. If lower noise levels are required, or if you want the exhaust air to be collected, the relevant accessories are available.





Note! All technical data are based on a working pressure of 6 bar and with oil. For oil-free performances are -10 to 15% lower. Data tolerance accuracy -+10%

Data for drilling motor for drill chuck P1V-S025M

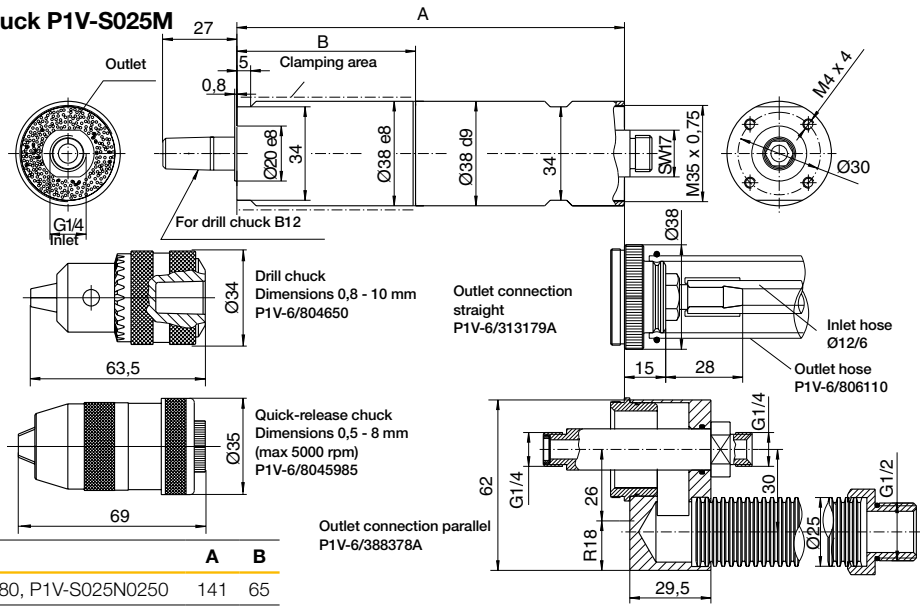
Max power [kW]	Free speed [rpm]	Version	Drilling in steel [mm]	Drilling in aluminium [mm]	Air consumption at max power [l/s]	Conn.	Min pipe ID	Weight	Order code
0.250	17000	For drill chuck B12	-	6	6.3	G1/40	6	0.80	**P1V-S025M0H00**
0.250	4800	For drill chuck B12	4	6	6.3	G1/40	6	0.80	**P1V-S025M0480**
0.250	2500	For drill chuck B12	6	8	6.3	G1/40	6	0.80	**P1V-S025M0250**
0.250	1400	For drill chuck B12	8	10	6.3	G1/40	6	0.80	**P1V-S025M0140**
0.250	700	For drill chuck B12	10	-	6.3	G1/40	6	0.80	**P1V-S025M0070**
0.250	350	For drill chuck B12	10	-	6.3	G1/40	6	0.80	**P1V-S025M0035**

Accessories for drilling motor for drill chuck P1V-S025M

Name	Order Code
Standard drill chuck	
Diameters 0.8 - 10 mm/B12	**P1V-6/804650**
Diameters 1.5 to 13 mm/B12	**P1V-6/804694**
Quick release chuck	
Diameters 0.5 - 8 mm/B12	**P1V-6/805985** (not for P1V-S025M0H00)
Other accessories	
Outlet connection straight	**P1V-6/3131179A**
Collet Ø 1/4“	**P1V-6/312689**
Outlet hose Ø 23 x 28 mm 0.75 m long	**P1V-6/806110**
Outlet connection parallel	**P1V-6/388378A**

Dimensions (mm)

- Drilling motor for drill chuck P1V-S025M



	A	B
P1V-S025N0H00, P1V-S025N0480, P1V-S025N0250	141	65
P1V-S025N0140,P1V-S025N0070, P1V-S025N0035	157	81

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P1V-S - Drilling, Grinding & Milling Air Motors

400 watts

Drilling motor for drill chuck P1V-S040M

Our large drilling motor is used for small-scale heavy drilling operations requiring considerable feed force.
Select drill chucks or quick-release chucks as accessories as necessary.
The motor has a built-in silencer for exhaust air. If lower noise levels are required, or if you want the exhaust air to be collected, the relevant accessories are available.



Note! All technical data are based on a working pressure of 6 bar and with oil. For oil-free performances are -10 to 15% lower. Data tolerance accuracy -+10%

Data for drilling motor for drill chuck P1V-S040M

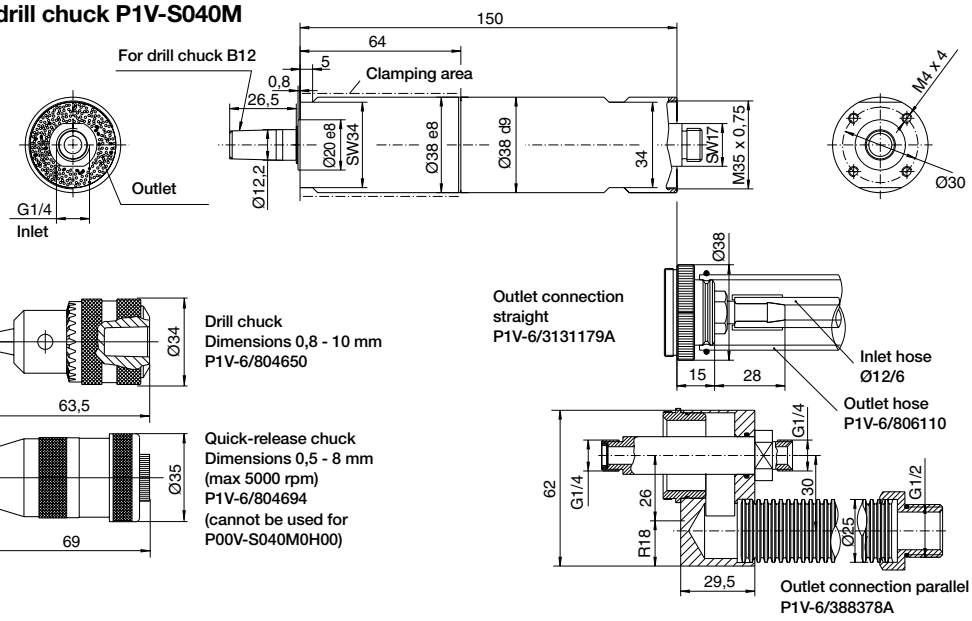
Max power [kW]	Free speed [rpm]	Version	Drilling in steel [mm]	Drilling in aluminium [mm]	Air consumption at max power [l/s]	Conn.	Min pipe ID	Weight	Order code
0.400	17000	For drill chuck B12	-	6	8.0	G1/40	6	0.82	**P1V-S040M0H00**
0.400	4800	For drill chuck B12	4	6	8.0	G1/40	6	0.82	**P1V-S040M0480**
0.400	2500	For drill chuck B12	6	8	8.0	G1/40	6	0.82	**P1V-S040M0250**
0.400	1400	For drill chuck B12	8	10	8.0	G1/40	6	0.82	**P1V-S040M0140**

Accessories for drilling motor for drill chuck P1V-S040M

Name	Order Code
Standard drill chuck	
Diameters 0.8 - 10 mm/B12	**P1V-6/804650**
Diameters 1.5 to 13 mm/B12	**P1V-6/804694**
Quick release chuck	
Diameters 0.5 - 8 mm/B12	**P1V-6/805985** (not for P1V-S040M0H00))
Other accessories	
Outlet connection straight	**P1V-6/3131179A**
Outlet hose Ø 23 x 28 mm 0.75 m long	**P1V-6/806110**
Outlet connection parallel	**P1V-6/388378A**

Dimensions (mm)

- Drilling motor for drill chuck P1V-S040M



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Drilling motor for drill chuck P1V-S060M

Our large drilling motor is used for small-scale heavy drilling operations requiring considerable feed force.
Select drill chucks or quick-release chucks as accessories as necessary.
The motor has a built-in silencer for exhaust air. If lower noise levels are required, or if you want the exhaust air to be collected, the relevant accessories are available.





Note! All technical data are based on a working pressure of 6 bar and with oil. For oil-free performances are -10 to 15% lower. Data tolerance accuracy -+10%

Data for drilling motor for drill chuck P1V-S060M

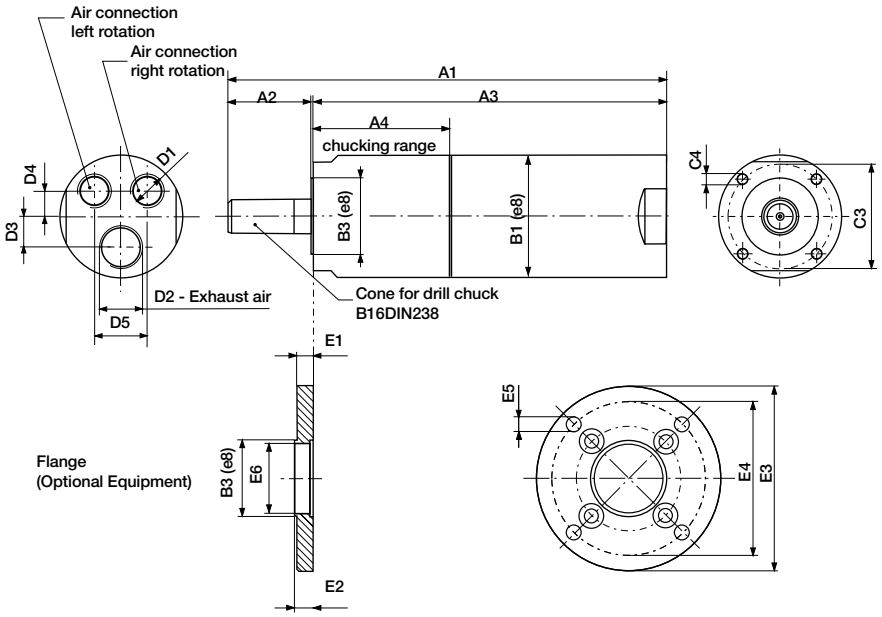
Max power [kW]	Free speed [rpm]	Version	Drilling in steel [mm]	Drilling in aluminium [mm]	Air consumption at max power [l/s]	Conn.	Min pipe ID	Weight	Order code
0.600	4000	For drill chuck B16	3	3	14,2	G3/8	12	2.1	**P1VAS060M0400**
0.600	3000	For drill chuck B16	5	5	14,2	G3/8	12	2.1	**P1VAS060M0300**
0.600	2000	For drill chuck B16	8	8	14,2	G3/8	12	2.1	**P1VAS060M0200**
0.600	700	For drill chuck B16	13	13	14,2	G3/8	12	2.2	**P1VAS060M0070**
0.600	500	For drill chuck B16	13	13	14,2	G3/8	12	2.3	**P1VAS060M0050**
0.600	340	For drill chuck B16	13	13	14,2	G3/8	12	2.3	**P1VAS060M0034**
0.600	180	For drill chuck B16	13	13	14,2	G3/8	12	2.3	**P1VAS060M0018**

Accessories for drilling motor for drill chuck P1V-S060M

Name	Order Code
Standard drill chuck	
Diameters 1 – 13 mm/B16	**P1V-6/804652**
Quick release chuck	
Diameters 1 - 13 mm/B16	**P1V-6/804663**

Dimensions (mm)

Drilling motor for drill chuck P1V-S060M



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Mountings for drilling P1V-S air motors

Data for milling motor with collet P1V-S040N

Type	For drilling motor	Weight	Order code
[kW]		[kg]	
Flange			
	P1V-S008	0.04	**P1V-S4008B**
	P1V-S025	0.09	**P1V-S4020B**
	P1V-S040	0.12	**P1V-S4030B**
	P1V-S060	0.25	**P1V-S4060B**
Foot bracket			
	P1V-S008	0.08	**P1V-S4008F**
	P1V-S025	0.11	**P1V-S4020F**
	P1V-S040	0.11	**P1V-S4030F**
	P1V-S060	0.30	**P1V-S4060F**

All brackets supplied with fastening screws for the motor.

Grinding motors with collets 90, 150, 250 & 300 W

The grinding motor 90 W is used for small-scale point grinding and small-scale milling where the high speed is an advantage. It has proved to be very useful for drilling small holes and milling thin slits in PCBs in the electronics industry. In this application, the high speed means that the holes and slits are free of burrs on the underside.

The other grinding motors are is used when larger-scale point grinding is required. The motor can also be used for light milling operations. The motor has a built-in silencer for exhaust air.



Note! All technical data are based on a working pressure of 6 bar and with oil. For oil-free performances are -10 to 15% lower. Data tolerance accuracy -+10%

Data for grinding motors with collets 90, 150, 250 & 300 W

Max power [kW]	Free speed [rpm]	Version	Point grinding diam max [mm]	Milling diam. max [mm]	Air consumption at max power [l/s]	Conn.	Min Pipe ID [mm]	Weight [kg]	Order Code
0.09	100000	Collet 3 mm	-	-	x		6	4.0	**P1V-S009N0A000**
0.150	47000	Collet 6 mm	-	-	x	G1/4o	6	0.36	**P1V-S015N0AQ0**
0.250	32000	Collet 6 mm	-	-	x	G1/4o	6	0.80	**P1V-S025N0Z00**
0.300	30000	Collet 6 mm	-	-	x	G1/4o	6	0.70	**P1V-S030N0X00**
0.300	45000	Collet 6 mm	-	-	x	-	6	0.70	**P1V-S030N0AN0**

Accessories for grinding motors with collets 90, 150, 250 & 300 W

Name	Order Code		
Collet	**For P1V-S015**	**For P1V-S025**	**For P1V-S030**
Collet Ø 3 mm	**P1V-6/312681**		**P1V-6/830650**
Collet Ø 4 mm	**P1V-6/312684**		**P1V-6/830702**
Collet Ø 5 mm	**P1V-6/312686**		**P1V-6/830703**
Collet Ø 6 mm	**included with motor**		
Collet Ø 1/8" (3, 175 mm)	**P1V-6/312682**		**P1V-6/830651**
Collet Ø 3/16" (4,76 mm)	**-**		**P1V-6/830652**
Collet Ø 1/4" (6,35 mm)	**P1V-6/312689**		**P1V-6/830653**

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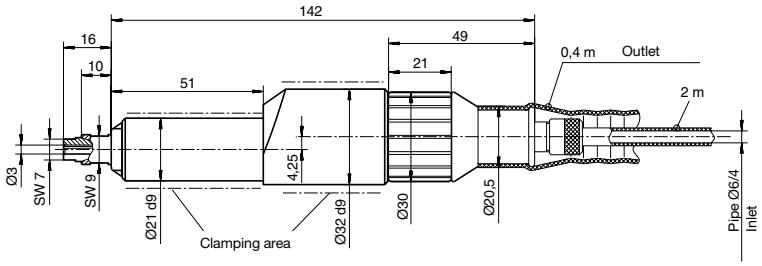
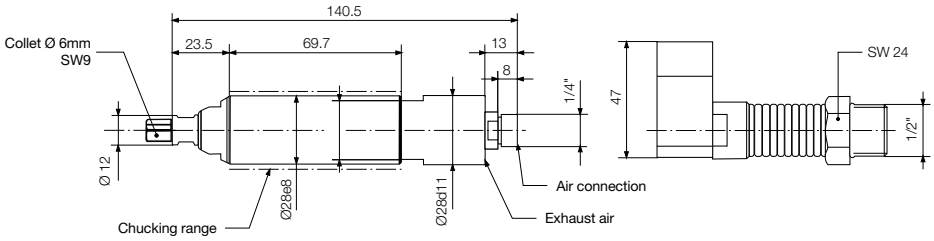
Dimensions (mm)

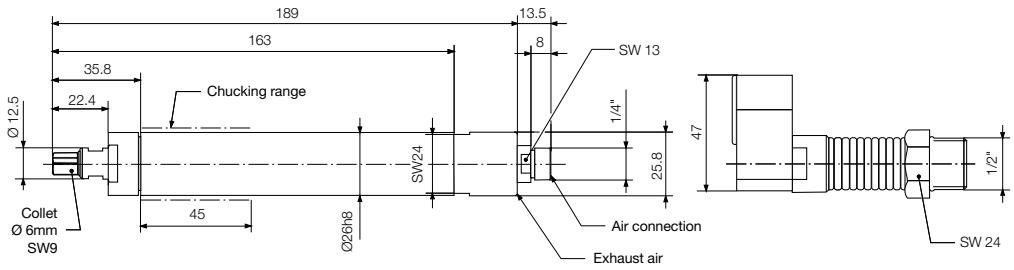
Grinding motor P1V-S009N0A000



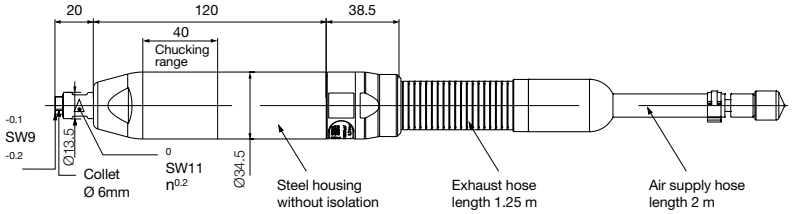
Grinding motor P1V-S015N0AQ0



Grinding motor P1V-S025N0Z00



Grinding motor P1V-S030N0X00
Grinding motor P1V-S030N0AN0



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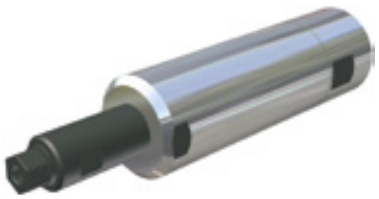
Milling motor with collet P1V-S040N

This motor was designed for milling plastic components, but it can also be used for milling other materials. The motor has a built-in silencer for exhaust air. If lower noise levels are required, or if you want the exhaust air to be collected, the relevant accessories are available.





Note! All technical data are based on a working pressure of 6 bar and with oil. For oil-free performances are -10 to 20% lower. Data tolerance accuracy -+10%

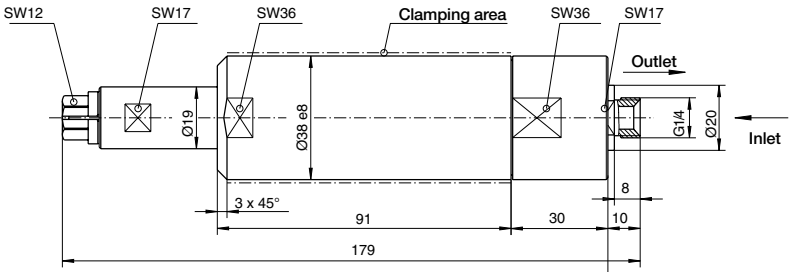
Data for milling motor with collet P1V-S040N

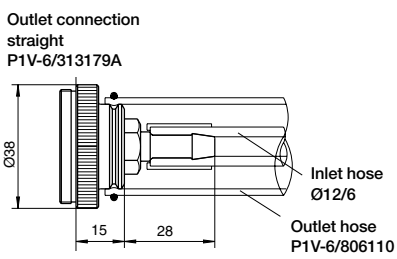
Max power [kW]	Free speed [rpm]	Version	Milling of plastic mill dia. max [mm]	Milling of wood mill dia. max [mm]	Air consumption at max power [l/s]	Conn.	Min pipe ID	Weight	Order code
0.400	20000	Collet 6	8	10	5,0	6	6	0,80	**P1V-S040N0L00**

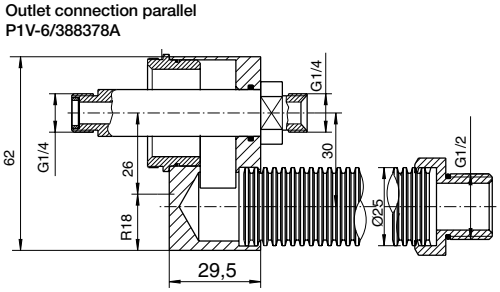
Accessories for milling motor with collet P1V-S040N

Name	Order Code
Collet Ø 3 mm	**P1V-6/312690**
Collet Ø 4 mm	**P1V-6/312692**
Collet Ø 5 mm	**P1V-6/312693**
Collet Ø 6 mm	**included with the motor**
Collet Ø 7 mm	**P1V-6/312739**
Collet Ø 8 mm	**P1V-6/312696**
Collet Ø 9 mm	**P1V-6/313137**
Collet Ø 1/8"	**P1V-6/312691**
Collet Ø 1/4"	**P1V-6/312695**
Other accessories	
Outlet connection straight	**P1V-6/3131179A**
Outlet hose Ø 23 x 28 mm 0,75 m long	**P1V-6/806110**
Outlet connection parallel	**P1V-6/388378A**

Dimensions (mm) - Milling motor with collet P1V-S040N0L00)







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Pneumatic Division - Europe

Milling motors with collets 500, 700 & 1000 W

This motor was designed for milling plastic components, but it can also be used for milling other materials.
The motor has a built-in silencer for exhaust air. If lower noise levels are required, or if you want the exhaust air to be collected, the relevant accessories are available.





Note! All technical data are based on a working pressure of 6 bar and with oil. For oil-free performances are -10 to 15% lower. Data tolerance accuracy -+10%

Data for milling motors with collets 500, 700 & 1000 W

Max power [kW]	Free speed [rpm]	Version	Air consumption at max power [l/s]	Conn.	Min pipe ID	Weight [kg]	Order code
0.500	20000	Collet 6 mm	15.0	6	10	1.2	**P1V-S050N0L00**
0.700	19000	Collet 6 mm	15.0		10	1.7	**P1V-S070N0N00**
1.000	15300	Collet 6 mm	16.7		12	1.7	**P1V-S100N0F30**

Accessories for milling motors with collets 500, 700 & 1000 W

Name	Order Code		
Collet	**For P1V-S050**	**For P1V-S070**	**For P1V-S100**
Collet Ø 3 mm	**P1V-6/6014320**	**P1V-6/6014317**	
Collet Ø 4 mm	**P1V-6/6014321**	**P1V-6/6017743**	
Collet Ø 5 mm	-	**P1V-6/6017744**	
Collet Ø 6 mm		**Included with the motor**	
Collet Ø 7 mm		-	
Collet Ø 8 mm	-	**P1V-6/315073**	
Collet Ø 8 mm (in stainless steel)	-	**P1V-6/6014282**	
Collet Ø 9 mm	-	**P1V-6/315089**	
Collet Ø 1/8" (3,175 mm)	**P1V-6/6014320**	-	-
Collet Ø 3/16" (4,76 mm)	**P1V-6/6014321**	**P1V-6/315088**	
Collet Ø 1/4" (6,35 mm)	**P1V-6/6014314**	**P1V-6/315074**	
Collet Ø 5/16"	-	**P1V-6/315090**	

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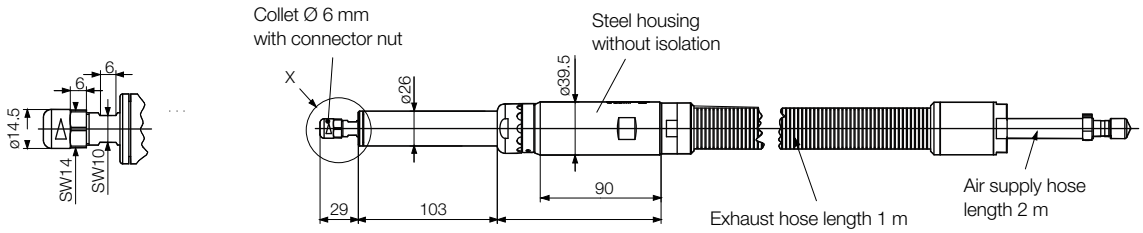
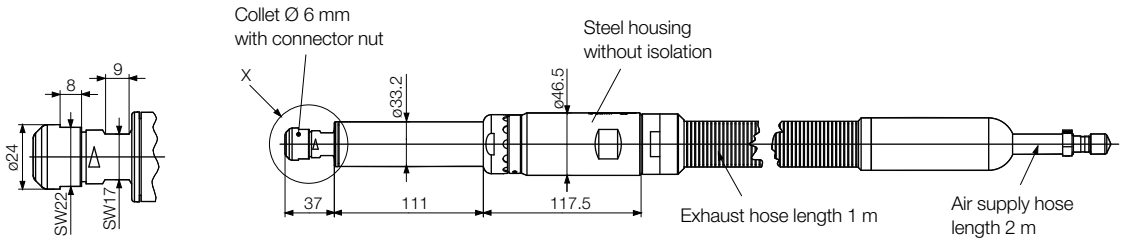
Dimensions (mm)

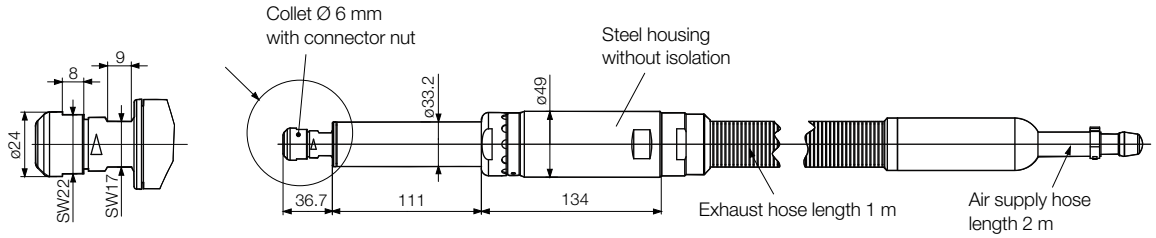
Milling motor with collet P1V-S050N0L00



Milling motor with collet P1V-S070N0N00



Milling motor with collet P1V-S100N0F30



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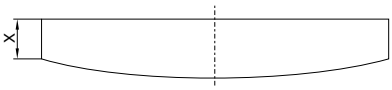
P1V-S - Drilling, Grinding & Milling Air Motors

Lubrication and service life



The first service is due after approximately 500 hours of operation. After the first service, the service interval is determined by the degree of vane wear*. The table below shows new dimensions and the minimum dimensions of worn vanes.



Drilling motors	New dimensions X (mm)	Minimum dimensions X (mm)
P1V-S008	4.3	4.0
P1V-S017	4.2	3.3
P1V-S025	6.5	5.8
P1V-S040	6.8	6.0

Milling motors	New dimensions X (mm)	Minimum dimensions X (mm)
P1V-S040	X	X
P1V-S050	X	X
P1V-S070	X	X
P1V-S100	X	X

Grinding motors	New dimensions X (mm)	Minimum dimensions X (mm)
P1V-S009	No vanes	No vanes
P1V-S015	X	X
P1V-S025	X	X
P1V-S030	X	X

* The specified hours of operation apply when the motor is running at the speed corresponding to maximum power (load speed).
This is approximately half free speed.If the motor operates at higher speeds, the service interval is shorter. If the motor operates at lower speeds, the service interval is longer.

Service kits for drilling, milling and grinding motors

The following kits are available for the motors, consisting of vanes, (springs), silencers, O-rings, seals and 50 g of grease: (USDA-H1 approved)



Service kits

For drilling motors	Order Code
P1V-S008N	**P1V-6/446085A**
P1V-S017N/M	**P1V-6/446086A**
P1V-S025N/M	**P1V-6/446087A**
P1V-S040M	**P1V-6/446088A**
P1V-S060M0350	**9121720604**
P1V-S060M0270	**9121720604**
P1V-S060M0170	**9121720604**
P1V-S060M0063	**9121720604**
P1V-S060M0048	**9121720605**
P1V-S060M0030	**9121720605**
P1V-S060M0015	**9121720605**

For milling motors	Order Code
P1V-S040N	**P1V-6/446088A**
P1V-S050N	**P1V-6/4405021B**
P1V-S070N	**P1V-6/4405021C**
P1V-S100N	**P1V-6/4405021D**

For grinding motors	Order code
P1V-S009N	**Service free**
P1V-S015N	**P1V-6/4449221A**
P1V-S025N	**P1V-6/4449211A**
P1V-S030N	**P1V-6/4405021B**

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JP – Japan, Tokyo
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MY – Malaysia, Shah Alam
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NZ – New Zealand, Mt Wellington
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SG – Singapore
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TH – Thailand, Bangkok
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TW – Taiwan, Taipei
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