

- up to 45 bar
- through-hole Ø 37.5 - 127.5 mm
- short design/low mass
- stroke control via proximity switch or linear positioning system



Application/customer benefits

- Actuation of open center jaw and collet power chucks
- Machining of bars and tubes

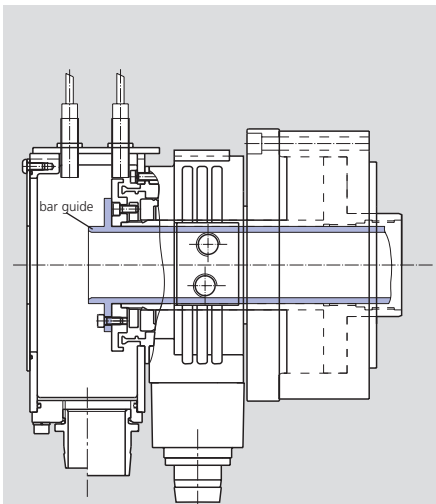
Technical features

- Pressure range 8–45 bar
- Short design/low mass/low power consumption
- Horizontal installation only
- Safety valves and excess pressure relief valve
- Mounting from the rear side with bolts
- A 10 µm filter in pressure line is requested
- Use oil HM32 ISO 3448

VNK

standard version

- mounting for bar guides standard
- bar guides not included



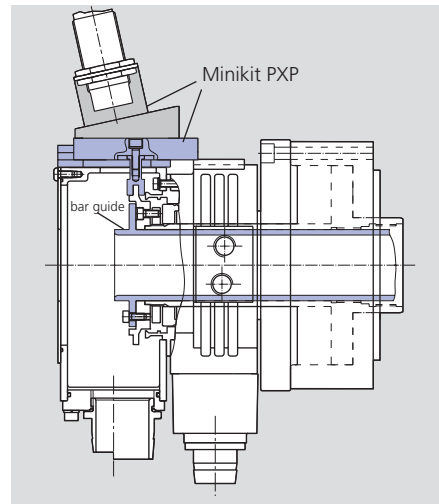
Ordering example VNK 150-67

- Cylinder Id. No. 33092216

VNK-PXP

with linear positioning system

- mounting for bar guides standard
- bar guides not included
- Minikit PXP must be ordered separately
- Sensor PXP Ø 30mm not included



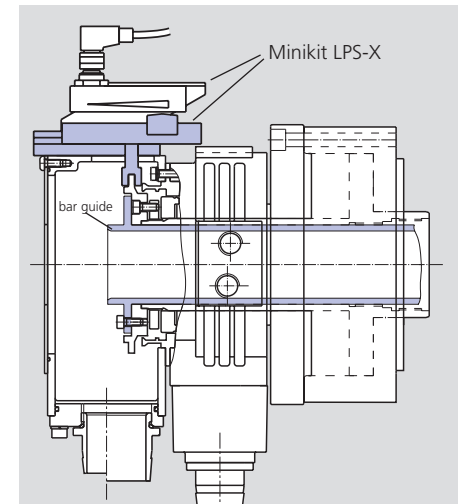
Ordering example VNK 150-67-PXP

- Cylinder Id. No. 77091916
- Minikit PXP Id. No. 60367941

VNK-LPS-X

with linear positioning system LPS-X

- bar guides not included
- Minikit LPS-X must be ordered separately
- Sensor LPS-X not included see page 233



Ordering example VNK 150-67-LPS-X

- Cylinder Id. No. 77091916
- Minikit LPS-X Id. No. 60367741

Technical data

SMW-AUTOBLOK Type VNK		70-37	102-46	130-52	150-67	170-77	200-86	225-95	250-110	320-127
VNK Standard version		33092211	33092213	33092215	33092216	33092218	33092219	33092220	33092222	33092225
VNK prepared for PXP/LPS		77091911	77091913	77091915	77091916	77091918	77091919	77091920	77091922	77091925
Minikit PXP		60367941	60367941	60367941	60367941	60367941	60367941	60367941	60367941	60367941
Minikit LPS-X		60367741	60367741	60367741	60367741	60367741	60367741	60367741	60367741	60367741
Piston area	cm ²	70	103	131	152	170	197	225	247	325
Through-hole	mm	37.5	46.5	52.5	67.5	77	86	95	110	127.5
Max. pressure	bar	45	45	45	45	45	45	45	45	45
Draw pull at 45 bar	kN	31	46	58	68	76	88	100	110	144
Oil leakage*	dm ³ /min	2.5	3	3.5	4	4.5	5	7	8	9
Max. speed	r.p.m.	8000	7000	6300	5500	5000	4500	4000	3600	3200
Weight	kg	8	12	15	20	23	27	30	48	61
Moment of inertia J	kg·m ²	0.013	0.028	0.04	0.07	0.09	0.13	0.17	0.28	0.54
Power absorption**	kW	0.85	1	1.2	1.5	1.8	1.9	1.9	2.2	2.5

* Total at 30 bar / 50 °C

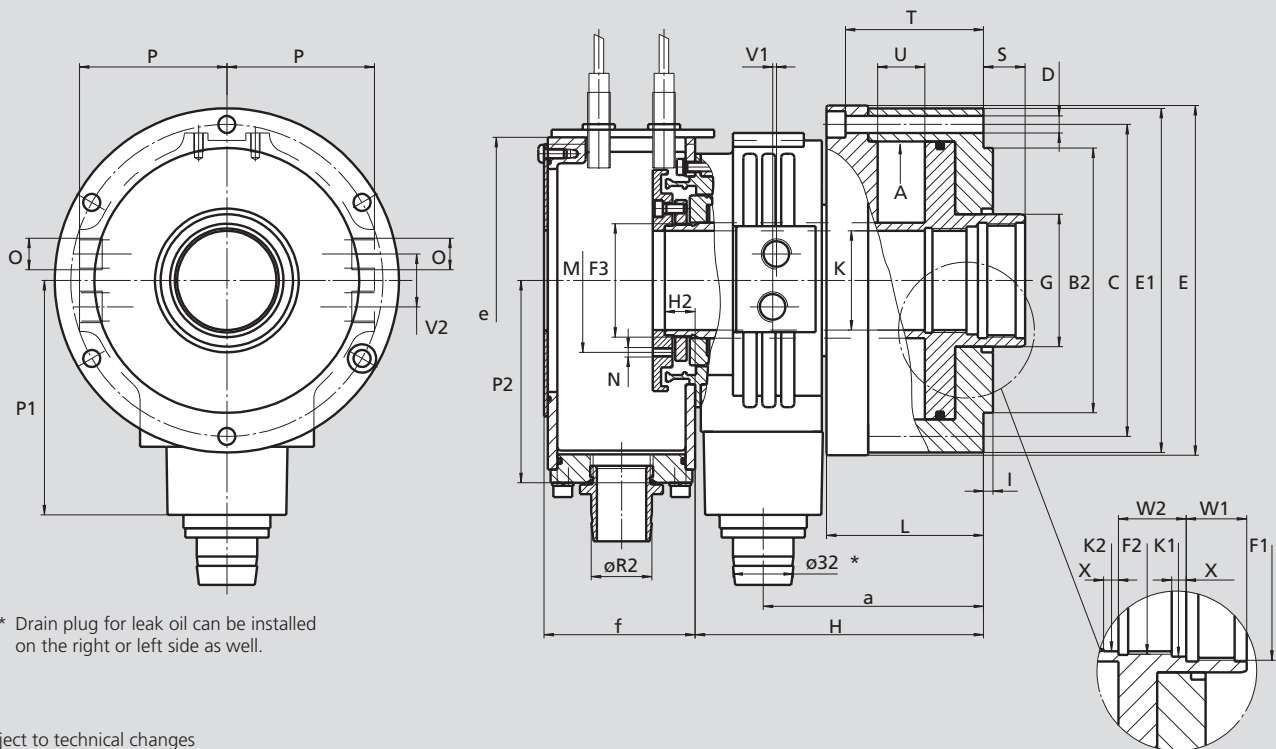
** At max. speed/ oil HM32 ISO 3448

Important: On higher pressure the leakage increases proportionally. On higher oil temperature the leakage increases over proportionally (the use of an oil cooler is recommended). When designing/checking the hydraulic unit please ask for our data sheets.

- up to 45 bar
- through-hole Ø 37.5 - 127.5 mm
- short design/low mass
- stroke control via proximity switch or linear positioning system

VNK

Open center
rotating hydraulic cylinder



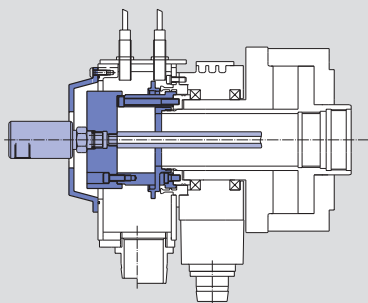
Subject to technical changes
For more detailed information please ask for customer drawing

SMW-AUTOBLOK Type VNK		70-37	102-46	130-52	150-67	170-77	200-86	225-95	250-110	320-127
A	mm	107	130	147	163	175	190	205	220	250
B2	h6	mm	110	130	140	160	180	210	210	250
C	mm	125	147	165	180	195	210	227	240	270
D	mm	n.6 x Ø 9	n.6 x Ø 9	n.6 x Ø 9	n.6 x Ø 11	n.6 x Ø 11	n.6 x Ø 11	n.6 x Ø 11	n.6 x Ø 11	n.6 x Ø 13
E	mm	145	165	185	202	217	234	249	266	295
E1	mm	140	162	182	197	214	228	245	266	290
F1	mm	M44 x 1.5	M55 x 2	M60 x 1.5	M75 x 2	M85 x 2	M95 x 2	M105 x 2	M120 x 2	M135 x 2
F2	mm	M42 x 1.5	M50 x 1.5	M55 x 2	M72 x 1.5	M80 x 2	M90 x 2	M100 x 2	M115 x 2	-
F3	mm	M42 x 1.5	M52 x 1.5	M60 x 1.5	M74 x 1.5	M84 x 1.5	M94 x 2	M104 x 2	M120 x 2	M138 x 2
G	mm	50	61	70	85	95	105	115	130	145
H	mm	151	152	152	178	178	203	208	245	266
H2	mm	16	16	16	21	21	21	21	26	22
I	mm	5	5	5	8	8	8	8	8	5
K	through-hole	mm	37.5	46.5	52.5	67.5	77	86.5	95.5	110.5
K1	H9	mm	42.5	52.5	57	72.5	82	92	102.5	117.5
K2	H9	mm	40	47	52.5	69	77	87	97	112
L	mm	83	83	83	95	95	107	107	116	134
M	mm	Ø 53	Ø 68	Ø 76	Ø 91	Ø 91	Ø 116	Ø 120	Ø 130	-
N	mm	M6 (2x)	M6 (2x)	M6 (2x)	M6 (2x)	M6 (2x)	M6 (2x)	M6 (2x)	M6 (2x)	-
O	oil connections	inch	G 3/8"	G 3/8"	G 3/8"	G 3/8"	G 3/8"	G 3/8"	G 3/8"	G 3/8"
P	mm	67	76	78	89	94	104	112	123	133
P1	mm	111	122	128	138	143	153	165	185	198
P2	mm	100	100	107	127	127	127	127	162	162
R2*	standard	mm	32	32	32	32	32	32	32	32
S	max.	mm	24	22	22	25	25	31	31	44
T	mm	67	73	73	82	82	94	94	104	113
U	piston stroke	mm	26	25	25	29	29	34	34	40
V1	mm	9	9	9	10	10	11	11	12	12
V2	mm	28	28	28	36	36	36	36	28	28
W1	mm	20	25	25	25	25	32	32	32	32
W2	mm	22	25	28	28	28	30	30	30	-
X	mm	5	6	6	6	6	6	6	6	6
a	mm	114.5	117	117	134	134	146	151	180	198
e	mm	128	128	144	184	184	184	184	230	230
f	standard	mm	65	65	80	90	90	90	100	100

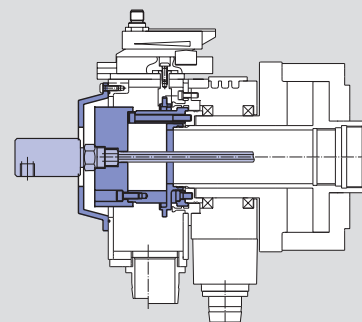
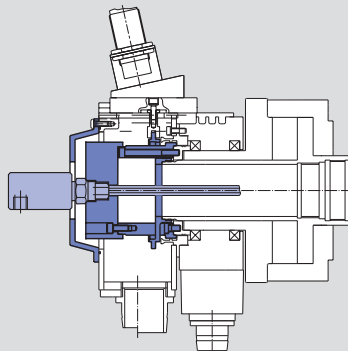
*R₂ also Ø 40 or Ø 60 (optional)

- Kit CP3 for rotary union
- Kit adjusting workstop

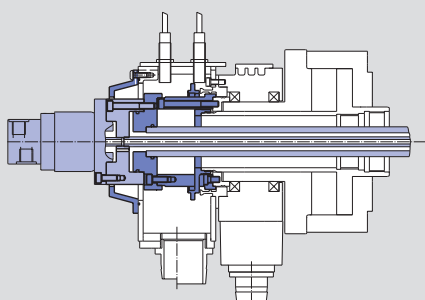
Kit CP3 for VNK standard
1 medium rotary union



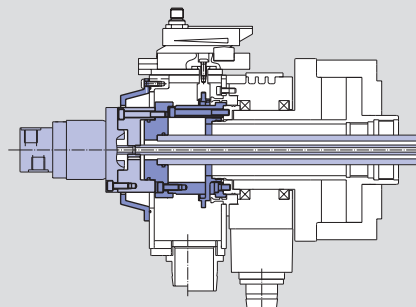
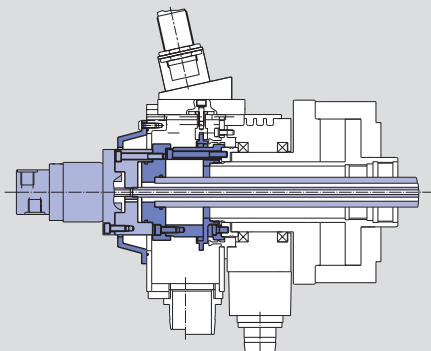
Kit CP3 for VNK-PXP/VNK-LPS 1 medium rotary union



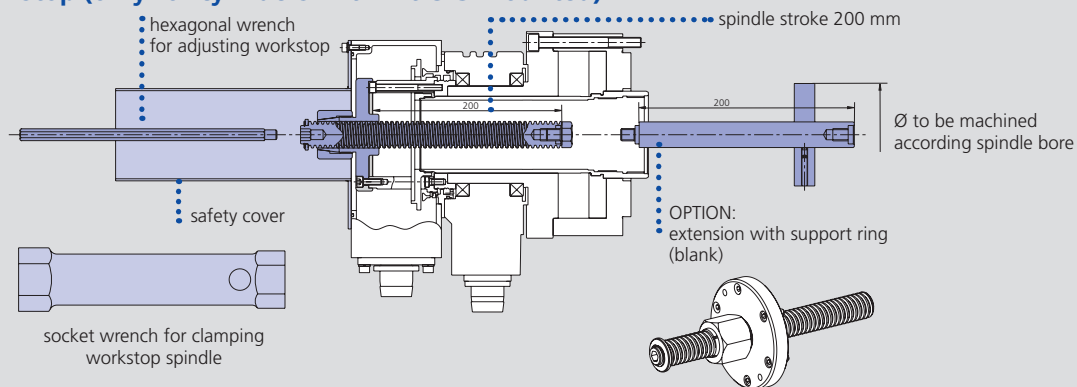
Kit CP3 for VNK standard
2 media rotary union



Kit CP3 for VNK-PXP/VNK-LPS 2 media rotary union



Kit adjustable workstop (only for cylinders with Kit CP3 mounted)



SMW-AUTOBLOK Type VNK	70-37	102-46	130-52	150-67	170-77	200-86	225-95	250-110	320-127
Id. No. adjusting workstop	044540	044542	044544	044546	044548	044550	044552	044554	044556

Important:

The basis to mount the axial workstop is a VNK cylinder **with the CP-3 standard unit** mounted.
The spindle of the work stop can have a through hole for media as an option.