

# ATC-B20/B40 vacuum gripping system

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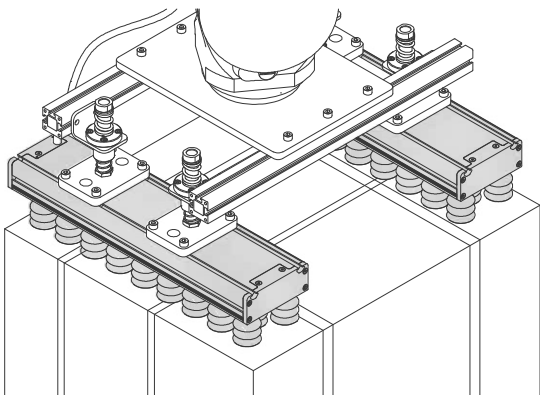
## ATC-B20/B40 vacuum gripper



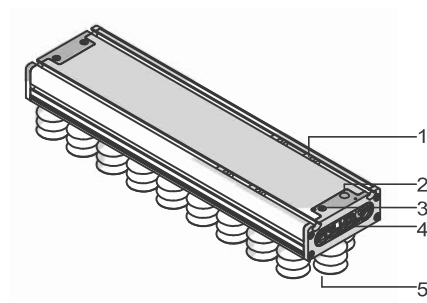
General-purpose



Application of ATC...B40/B20 vacuum gripper



System design of ATC...B40/B20 vacuum gripper



### Introduction

- ◆ Suitable for applications with compressed air supplied on-site
- ◆ Light, high-strength casing made of quality aluminum alloy
- ◆ Options offered for internal check valve and throttle valve structure
- ◆ T-slot installation (with M8×1.25 sliders)
- ◆ 130 mm wide; suction surface: B20/B40 rubber cup

### Application

- ◆ Mainly used for packaging, e.g. smart warehousing, smart logistics, piling and unpling, etc.
- ◆ The gripper with check valve can be used to suction irregular workpieces with leakage to a certain degree and in non-uniform size

### Structure

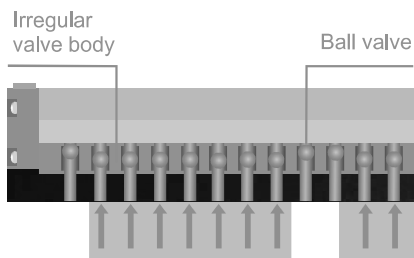
- ◆ (1) M8 slider in the T-slot
- ◆ (2) Compressed air inlet
- ◆ (3) Vacuum detection port
- ◆ (4) Exhaust port
- ◆ (5) Suction surface of cup parts

# ATC-B20/B40 vacuum gripping system

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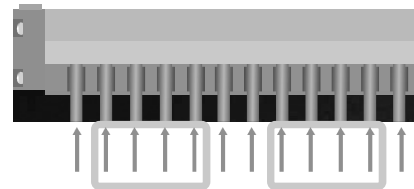
## ATC-B20/B40 vacuum gripper

### SVK check valve technology



- A mechanical check valve is mounted to the profiled aluminum plate. When the suction holes in the foam do not cover the workpiece, the check valve will automatically close to ensure the vacuum degree of the system
- The air leakage preExhaust portion function enables higher handling efficiency and suction force
- The irregular valve with a larger diameter to allow larger flow to pass through can be used for quick gripping and releasing and can meet the demand for handling workpieces with uneven surfaces

### SW throttle valve technology



- The internal throttle minimizes the vacuum leakage in the suction area not covering the workpiece
- Applicable to tipping over and quick handling
- Options offered for throttle valve diameter

### Model selection guide

Application Feature	SVK	SW
Smooth and highly airtight workpiece surfaces (such as metal sheets, glass, painted wood, etc.)	✓	✓
Breathable workpieces (such as cardboards, bags, bare wood, etc.)	✓	
Uneven workpiece surfaces	✓	
Small workpiece suction area, low coverage of suction holes of the gripper (e.g. tubes, profiled materials)	✓	
Minimized operating cycle (faster blowing and releasing)	✓	
Optimized energy efficiency	✓	
Tipping-over operation angle > 45°		✓

Application Feature	SVK	SW
Minimized disturbance caused by mismatch between tube diameter and external vacuum generator	✓	
Easy installation, quick connection	✓	
Minimized system cost (the input cost involves the vacuum generating unit, hose and controller)	✓	
Minimized operating cost (due to the electric vacuum generator used), especially in the event of more grippers required	✓	
Highly breathable workpieces handled	✓	

Application Feature	Sponge	Rubber cup
Rigid workpieces such as plates, metal sheets, profiled materials and pallets	✓	✓
Flexible workpieces such as cartons, bags, packages and pallets	✓	✓
Long thin workpieces and plates	✓	
Rough workpiece surfaces with patterns	✓	
Palletized small workpiece handling, e.g. canned food (opened/closed), tins	✓	

Vacuum gripping system

- ATC -3R18/5R18
- ATD -3R18/5R18
- ATC -B40/B20**
- ATD -B40/B20
- ATC -MX39/MX55
- ATD -MX39/MX55
- ATE
- ATF
- ATS
- ATK
- MPT
- MPM
- ATX
- ABX
- MSG
- MSC
- MATD

# ATC-B20/B40 vacuum gripping system

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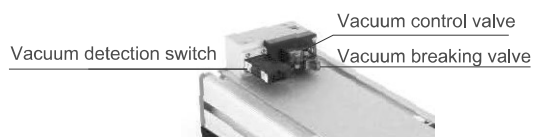
## ATC-B20/B40 vacuum gripper

☑ ATC...3R18/5R18 foam gripper purchase guide

### ATC - FN - SVK 258 3R54 B40

①                      ②                      ③                      ④                      ⑤                      ⑥

① Product series	② Controller	③ Valve technology	④ Length	
ATC	Null - No control valve	SVK - Check valve	258mm	618mm
	FN - With control valve, NPN switch	SW - Throttle valve	278mm	816mm
	FP - With control valve, PNP switch		294mm	978mm
			420mm	1212mm
			508mm	1410mm



⑤ Number of suction hole rows	⑥ Cup diameter
3R54 - 3 rows of holes (suction hole interval: 54mm)	B40 - Diameter: 40mm
5R36 - 5 rows of holes (suction hole interval: 36mm)	B20 - Diameter: 20mm

Note: When item 5 is 3R54, it can only correspond to B40.  
When item 5 is 5R36, it can only correspond to B20.

☑ ATC...B40/B20 vacuum gripper fittings

Name	Model
Rubber cup	B40
	B20

# ATC-B20/B40 vacuum gripping system

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## ATC-B20/B40 vacuum gripper

### Technical parameters of ATC...B40 vacuum gripper

Model	Number of suction holes	Air consumption l/min	Maximum vacuum degree %	Suction force N	Weight kg
ATC-□-SVK 258 3R54 B40	12	180	70	160	2.8
ATC-□-SVK 278 3R54 B40	15	180	70	210	3.1
ATC-□-SVK 294 3R54 B40	15	180	70	210	3.4
ATC-□-SVK 420 3R54 B40	23	180	70	320	4.2
ATC-□-SVK 508 3R54 B40	27	180	70	380	4.6
ATC-□-SVK 618 3R54 B40	33	270	70	460	5.1
ATC-□-SVK 816 3R54 B40	44	180	70	610	7.7
ATC-□-SVK 978 3R54 B40	53	270	70	740	8.9
ATC-□-SVK 1212 3R54 B40	66	270	70	920	10.3
ATC-□-SVK 1410 3R54 B40	77	270	70	1080	11.7
ATC-□-SW 258 3R54 B40	12	180	70	128	2.7
ATC-□-SW 278 3R54 B40	15	180	70	168	3.0
ATC-□-SW 294 3R54 B40	15	180	70	168	3.4
ATC-□-SW 420 3R54 B40	23	180	70	256	4.1
ATC-□-SW 508 3R54 B40	27	180	70	300	4.5
ATC-□-SW 618 3R54 B40	33	270	70	360	5.0
ATC-□-SW 816 3R54 B40	44	180	70	480	7.6
ATC-□-SW 978 3R54 B40	53	270	70	590	8.8
ATC-□-SW 1212 3R54 B40	66	270	70	730	10.2
ATC-□-SW 1410 3R54 B40	77	270	70	860	11.6

Vacuum gripping system

ATC-3R18/5R18

ATD-3R18/5R18

ATC-B40/B20

ATD-B40/B20

ATC-MX39/MX55

ATD-MX39/MX55

ATE

ATF

ATS

ATK

MPT

MPM

ATX

ABX

MSG

MSC

MATD

### Technical parameters of ATC...B20 vacuum gripper

Model	Number of suction holes	Air consumption l/min	Maximum vacuum degree %	Suction force N	Weight kg
ATC-□-SVK 258 5R36 B20	34	180	70	140	3.0
ATC-□-SVK 278 5R36 B20	35	180	70	145	3.3
ATC-□-SVK 294 5R36 B20	39	180	70	160	3.6
ATC-□-SVK 420 5R36 B20	55	180	70	230	4.5
ATC-□-SVK 508 5R36 B20	69	270	70	290	4.9
ATC-□-SVK 618 5R36 B20	84	360	70	350	5.4
ATC-□-SVK 816 5R36 B20	110	360	70	460	8.0
ATC-□-SVK 978 5R36 B20	130	450	70	550	9.1
ATC-□-SVK 1212 5R36 B20	165	540	70	700	10.6
ATC-□-SVK 1410 5R36 B20	194	630	70	820	12.0
ATC-□-SW 258 5R36 B20	34	180	70	112	2.9
ATC-□-SW 278 5R36 B20	35	180	70	116	3.2
ATC-□-SW 294 5R36 B20	39	180	70	128	3.5
ATC-□-SW 420 5R36 B20	55	180	70	180	4.4
ATC-□-SW 508 5R36 B20	69	270	70	230	4.8
ATC-□-SW 618 5R36 B20	84	360	70	280	5.3
ATC-□-SW 816 5R36 B20	110	360	70	360	7.9
ATC-□-SW 978 5R36 B20	130	450	70	440	9.0
ATC-□-SW 1212 5R36 B20	165	540	70	560	10.5
ATC-□-SW 1410 5R36 B20	193	630	70	650	11.9

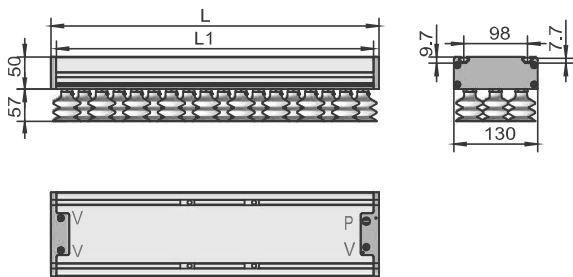
# ATC-B20/B40 vacuum gripping system

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## ATC-B20/B40 vacuum gripper

### ✂ Design parameters of ATC...B40/B20 vacuum gripper

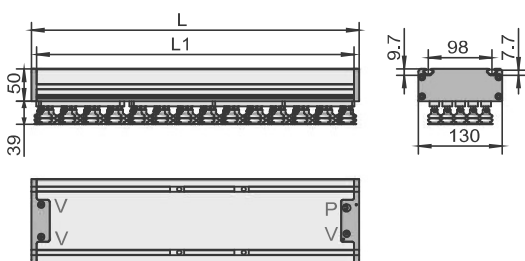
ATC...3R54 B40 (258 to 1410)



P: Compressed air inlet (G1/4)  
V: Vacuum port (G1/8)

Model	Size (mm)	
	L	L1
ATC-SVK(SW)258 3R54 B40	258	242
ATC-SVK(SW)278 3R54 B40	278	262
ATC-SVK(SW)294 3R54 B40	294	278
ATC-SVK(SW)420 3R54 B40	420	404
ATC-SVK(SW)508 3R54 B40	508	492
ATC-SVK(SW)618 3R54 B40	618	602
ATC-SVK(SW)816 3R54 B40	816	800
ATC-SVK(SW)978 3R54 B40	978	962
ATC-SVK(SW)1212 3R54 B40	1212	1196
ATC-SVK(SW)1410 3R54 B40	1410	1394

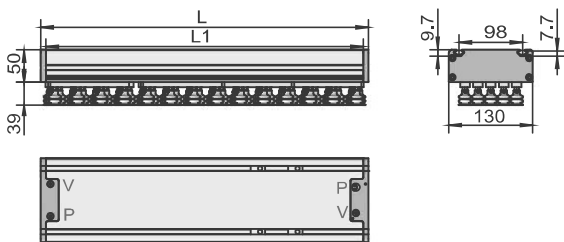
ATC...5R36 B20 (258 to 816)



P: Compressed air inlet (G1/4)  
V: Vacuum port (G1/8)

Model	Size (mm)	
	L	L1
ATC-SVK(SW)258 5R36 B20	258	242
ATC-SVK(SW)278 5R36 B20	278	262
ATC-SVK(SW)294 5R36 B20	294	278
ATC-SVK(SW)420 5R36 B20	420	404
ATC-SVK(SW)508 5R36 B20	508	492
ATC-SVK(SW)618 5R36 B20	618	602
ATC-SVK(SW)816 5R36 B20	816	800

ATC...5R36 B20 (978 to 1410)



P: Compressed air inlet (G1/4)  
V: Vacuum port (G1/8)

Model	Size (mm)	
	L	L1
ATC-SVK(SW)978 5R36 B20	978	962
ATC-SVK(SW)1212 5R36 B20	1212	1196
ATC-SVK(SW)1410 5R36 B20	1410	1394

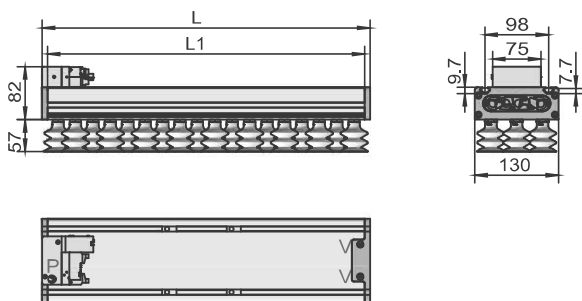
# ATC-B20/B40 vacuum gripping system

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## ATC-B20/B40 vacuum gripper

✂ Design parameters of ATC-FN/FP...B40/B20 vacuum gripper with control valve

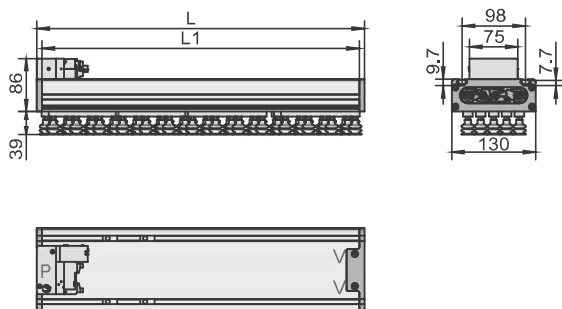
ATC-FN/FP... 3R54 B40 (258 to 1410)



P: Compressed air inlet (G1/4)  
V: Vacuum port (G1/8)

Model	Size (mm)	
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ATC-□-SVK(SW)258 3R54 B40	258	242
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ATC-□-SVK(SW)294 3R54 B40	294	278
ATC-□-SVK(SW)420 3R54 B40	420	404
ATC-□-SVK(SW)508 3R54 B40	508	492
ATC-□-SVK(SW)618 3R54 B40	618	602
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ATC-□-SVK(SW)978 3R54 B40	978	962
ATC-□-SVK(SW)1212 3R54 B40	1212	1196
ATC-□-SVK(SW)1410 3R54 B40	1410	1394

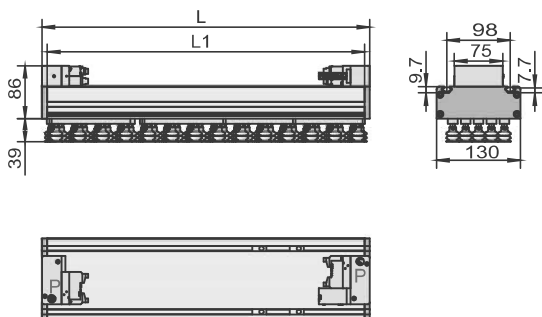
ATC-FN/FP... 5R36 B20 (258 to 816)



P: Compressed air inlet (G1/4)  
V: Vacuum port (G1/8)

Model	Size (mm)	
	L	L1
ATC-□-SVK(SW)258 5R36 B20	258	242
ATC-□-SVK(SW)278 5R36 B20	278	262
ATC-□-SVK(SW)294 5R36 B20	294	278
ATC-□-SVK(SW)420 5R36 B20	420	404
ATC-□-SVK(SW)508 5R36 B20	508	492
ATC-□-SVK(SW)618 5R36 B20	618	602
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ATC-FN/FP...5R36 B20 (978to 1410)



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ATC-□-SVK(SW)1212 5R36 B20	1212	1196
ATC-□-SVK(SW)1410 5R36 B20	1410	1394

Vacuum gripping system

- ATC -3R18/5R18
- ATD -3R18/5R18
- ATC -B40/B20**
- ATD -B40/B20
- ATC -MX39/MX55
- ATD -MX39/MX55
- ATE
- ATF
- ATS
- ATK
- MPT
- MPM
- ATX
- ABX
- MSG
- MSC
- MATD