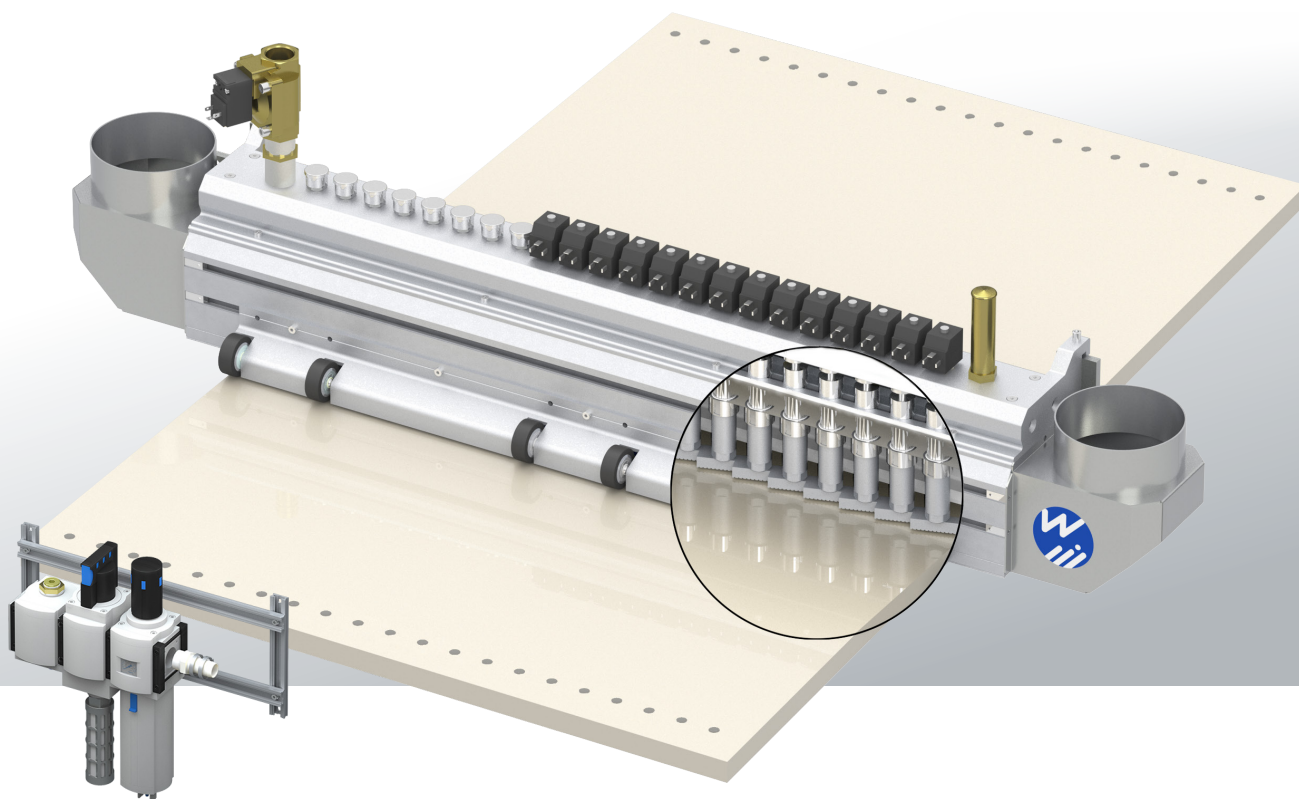


Tornado Channel TKF 200..

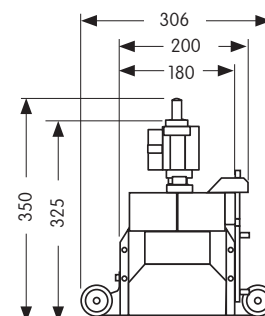
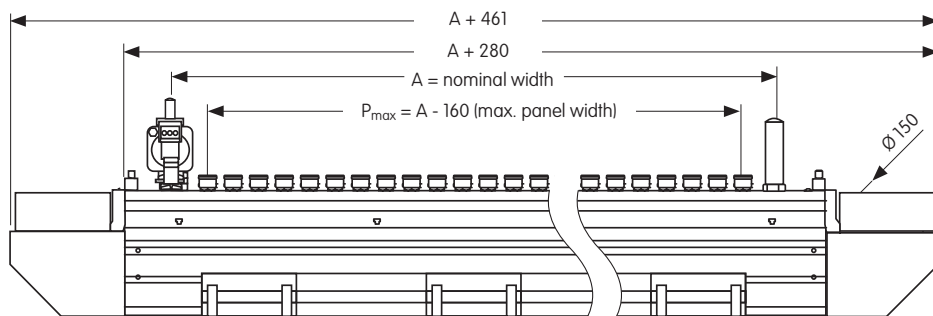


Brief description

The Tornado Channel TKR 200.. is ideal for the pre-cleaning of panels with rows of bore holes that run orthogonally in relation to the product flow. Compressed air driven Power nozzles remove the particles from the bore holes, an air flow will transport the particles towards the suction connections. A compressed air reservoir will provide for the necessary air pressure all across the entire board width. We recommend to install electrical valves and a product recognition at the infeed of the channel to reduce compressed air consumption and to be able to emit precise short jets of air at a particular time.

Technical details

- U-shaped channel with mounting brackets and spacing rollers at the infeed and the outfeed
- Fixed Power nozzles pitched at 40 mm intervals with individual mechanical resp. electrical valves
- Integrated pressure reservoir with pressure control valve
- Incoming compressed air regulator including filter, regulator and on-off valves
- Suction connections facing upwards



Measures in mm

Order code	Nominal width A mm	Nominal width A inch	Number of Power nozzles	Number of suction connections	Total air consumption Nm ³ /jet of air**
2270-003	400	15.75	7	1	0.019
2270-004	520	20.47	10	1	0.027
2270-005	650	25.59	13	1	0.035
2270-058	700	27.55	15	1	0.040
2270-006	850	33.46	18	1	0.048
2270-045	900	35.43	20	1	0.053
2270-007	1000	39.37	22	1	0.059
2270-008	1100	43.31	25	1	0.067
2270-031	1200	47.24	27	1	0.072
2270-009	1300	51.18	30	1	0.080
2270-030	1400	55.11	32	1	0.085
2270-010	1500	59.05	35	2	0.093
2270-011	1650	64.96	38	2	0.101
2270-059	1700	66.92	40	2	0.107
2270-012	1750	68.89	41	2	0.109
2270-032	1900	74.80	45	2	0.120
2270-013	2000	78.74	47	2	0.125
2270-033	2100	82.67	50	2	0.133
2270-014	2200	86.61	52	2	0.139
2270-056	2300	90.55	55	2	0.147
2270-015	2500	98.42	60	2	0.160
2270-016	2750	108.20	66	2	0.176
2270-060	2800	110.23	67	2	0.179
2270-017	3000	118.11	72	2	0.192

* if compressed air pressure is at 6 bar and all Power nozzles are activated simultaneously for 0.5 seconds

Ordering example

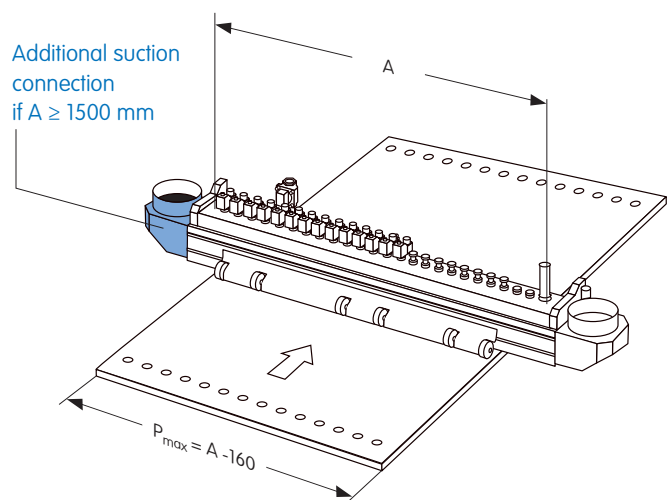
The panel that needs to be cleaned has a max. width of $P_{\max} = 800$ mm.

Min. nominal width of the Tornado Channel is

$A_{\min} = P_{\max} + 160$ mm = 960 mm

The most suitable Tornado Channel has a nominal width of $A = 1000$ mm

Order code 2270-007 describes TKF 200/VM/1000





Technical data

TKF 200/VM/A

Electrical

Main valve	1 x 24 V DC; 4.5W
Magnetic valves	each with 24 V DC / 0.5 A

Pneumatics

Compressed air quality	filtered (max. particle size < 40µm), oil free (residual oil < 1.5 mg/Nm ³ at 24° C)
Compressed air connection	1 x 1" female thread; 6 bar
Compressed air consumption per Power nozzle	0.320 Nm ³ /min
Compressed air consumption entire channel	See table page 2 For a short period of time, all nozzles may be activated. For continuous operation, no more than 36 nozzles should be activated at the same time.

Suction

Suction connection	A < 1500 mm 1 x Ø 150 mm	A ≥ 1500 mm 2 x Ø 150 mm
Suction capacity	1 x 26 Nm ³ /min	2 x 26 Nm ³ /min
Vacuum	Min. -500 Pa	
Flow velocity	Min. 25 m/s	

Acoustic emission

Max. acoustic emission	86 dB (A) if all power nozzles are activated The acoustic emission depends on the number of activated nozzles, the surface characteristics and the geometry of the panel that needs to be cleaned.
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Transport speed

Max. transport speed	30 m/min If v > 30 m/min, some particles may remain in smaller bore holes
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Dimensions

Min. panel length	L _{min} = 300 mm
Panel width P _{max}	P _{max} = Nominal width A - 160 mm
Bore hole diameter	Min. 4 mm
Bore hole depth	Max. 12 mm
Distance Tornado Channel to surface	5 mm

Technical information is subject to changes.

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