

R10 & R10 Turbo



R10-13
U.S. & METRIC
9/22



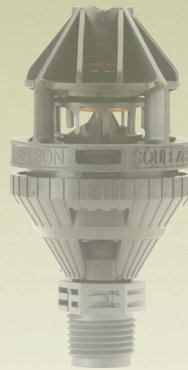
R5
9 - 29 GPM
34 - 110 LPH



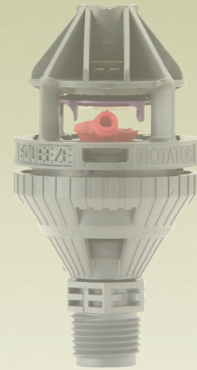
R10
0.3 - 0.7 GPM
61 - 164 LPH



R10 Turbo
0.6 - 2.1 GPM
140 - 469 LPH



R2000
0.7 - 3.5 GPM
150 - 792 LPH



R2000LP/WF
0.9 - 5.7 GPM
191 - 1295 LPH

The R10 and R10 Turbo are part of the Nelson Rotator® family of sprinklers.

 **NELSON IRRIGATION CORPORATION**



No other

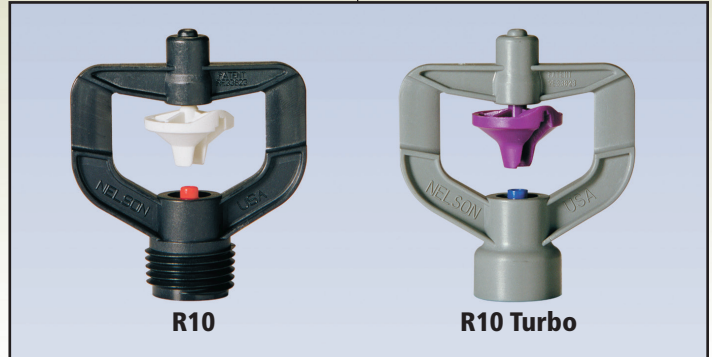
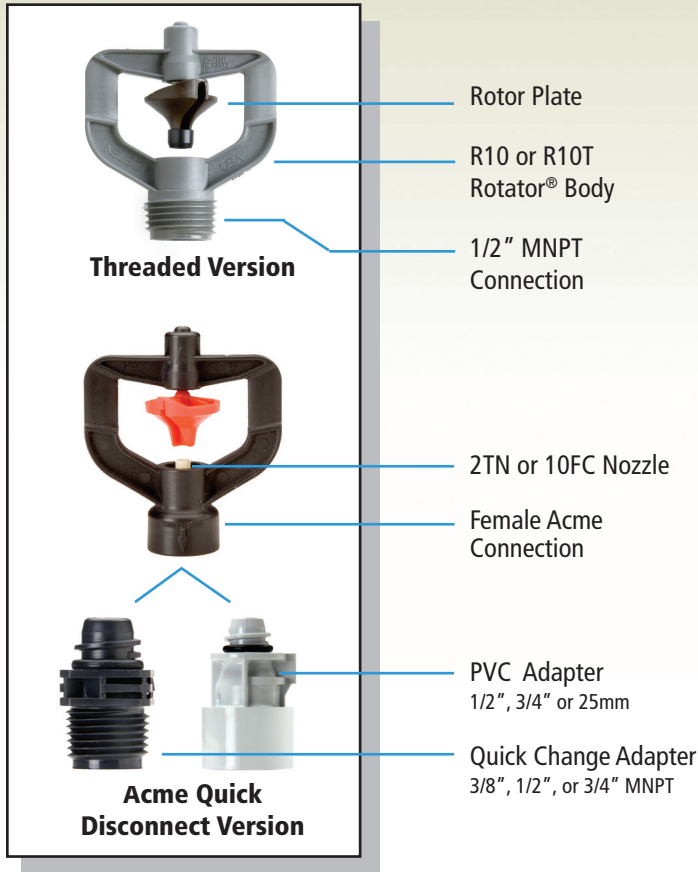


agricultural sprinkler matches the dependability

Ultra Reliable Low-Volume Sprinklers

Filling the need for small, low-volume sprinklers that perform reliably in the mid-range between micro and a regular size sprinkler, Nelson **R10** and **R10 Turbo (R10T)** Rotators are right on target. Incorporating the same proven, patented drive principle and advanced sprinkler technology used in other Nelson Rotators, the R10 and R10T are making their mark in a wide variety of orchard and field irrigation applications.

R10 & R10 Turbo Components



A special motor (brake) design in the R10 Turbo Rotators has more resistance to maximize radius, reliability, and uniformity.

Nelson 2TN Nozzle

- long wear and high accuracy
- color-coded for easy identification
- easy change snap in or out design



For durability, dependability and doing a better job of uniform water application, the choice is simple. Nelson R10 and R10 Turbo.



CROP APPLICATIONS



Overhead cooling for tree crops.

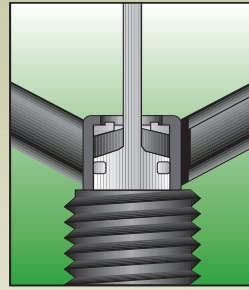
Under canopy irrigation for tree crops.



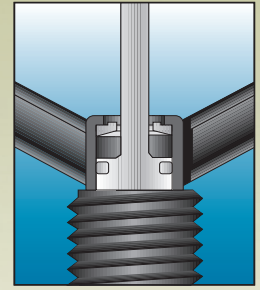
For irrigation of field crops. The R10T Rotator® is used as part of a portable irrigation system that utilizes polyethylene pipe for laterals in combination with the Nelson FT5 feedtube assembly.



R 10 NOZZLE OPTIONS AND FLOW REGULATION



10FC with high pressure



10FC with low pressure

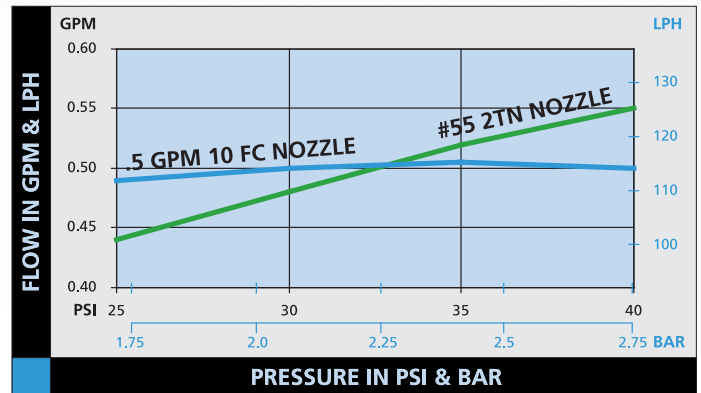
Nelson 10FC Flow Control Nozzle

The 10FC nozzles illustrated above are operating at the same flow. As pressure increases, the flexible flow washers reduce the orifice opening size and emit a constant flow over a wide range of pressure. They assure uniform application of water throughout your crop.

Why use Flow Control Nozzles?

- constant flow over a range of pressure
- increases field uniformity
- low cost, high value

10FC nozzle and 2TN nozzle flow rates with changes in pressure



Flow control nozzles (10FC) are an excellent low cost option when system pressure ranges between 25-50 PSI (1.7-3.4 BAR). When system pressure differences are more extreme the Nelson Mini Regulator or Mini Regulator Drain Check are ideal products.

Mini Regulator (MR), Mini Regulator Drain Check (MRDC) and Mini Drain Check (MDC)










The Mini Regulator and Mini Regulator Drain Check increase the potential to conserve water when the pressure is maintained at or above the nominal rating of the regulator. Every sprinkler in a system delivers exactly the same flow, droplet size, and distribution uniformity. The MR and MRDC are available in 30, 35, 40, 45, or 50 PSI (2.0, 2.4, 2.8, 3.1 or 3.4 BAR) nominal pressures.

The Drain Check feature (available in the MRDC and MDC) eliminates sprinkler drizzle during shut down and start up. The Mini Drain Check is available in 20 and 35 PSI (1.4-2.4 BAR) options.














MR, MRDC & MDC Connection Options	
Inlet	Outlet
Female Acme, ½" MNPT, ½" FNPT	Male Acme, ½" MNPT

R10 Plate/Nozzle Options and Flow Performance in GPM and LPH

Plate Series	Plate Options	Recommended Nozzles	PSI						BAR						
			25	30	35	40	45	50	1.75	2	2.25	2.5	2.75	3	3.25
P2	P2 9° Red Radius 18-20' (5.5-6.1 m) Stream Ht. 14-23" (36-58 cm) 	 Lt. Blue #40	—	—	.28	.30	.32	.34	—	—	61.4	64.7	68.0	71.3	74.6
		 Lt. Purple #45	.29	.32	.35	.37	.39	.42	66.4	71.3	76.3	80.6	83.9	87.2	91.5
		 Dk. Green #50	.36	.39	.43	.46	.48	.51	82.3	87.2	93.4	99.4	104	108	112
		.35 10FC (79 LPH) .43 10FC (98 LPH)	Within the recommended pressure range of 25-50 PSI (1.75-3.25 BAR), the .35 10 FC flow control nozzle is flow regulating within a flow range of no more than 0% greater and 10% less than the nominal flow of .35 GPM (79.5 LPH).												
P4	P4 9° White Radius 18-22' (5.5-6.7 m) Stream Ht. 14-24" (36-61 cm)  P4 15° Orange Radius: 23-25' (7.0-7.6 m) Stream Ht. 40-50" (102-127 cm) 	 Dk. Green #50	—	—	.43	.46	.48	.51	—	—	93.4	99.4	104	108	112
		 Lt. Yellow #55	.44	.48	.52	.55	.59	.62	101	107	114	120	125	131	137
		 Lt. Red #60	.51	.56	.61	.65	.69	.73	117	125	133	141	147	154	161
		.50 10FC (114 LPH)	Within the recommended pressure range of pressure range of 25-50 PSI (1.75-3.25 BAR), the .50 10 FC flow control nozzle is flow regulating within a flow range of no more than 0% greater and 10% less than the nominal flow of .5 GPM (114 LPH).												

R10 Turbo Plate/Nozzle Options and Flow Performance in GPM and LPH

Plate Series	Plate Options	Recommended Nozzles	PSI						BAR						
			25	30	35	40	45	50	1.75	2	2.25	2.5	2.75	3	3.5
P6	P6 9° Blue R. 20-22' (6.1-6.7 m) Stream Ht. 17-30" (43-76 cm)  P6 15° Purple R. 25-26' (7.6-7.9 m) Stream Ht. 33-49" (84-124 cm) 	 Gray #65	.61	.67	.72	.77	.82	.86	140	150	158	166	175	183	197
		 White #70	.70	.77	.83	.89	.94	1.00	160	172	182	192	202	210	229
		 Dk. Blue #78	.88	.97	1.05	1.12	1.19	1.25	201	217	230	242	254	266	286
		.75 10FC (170 LPH) 1.0 10FC (227 LPH)	Within the recommended pressure range of 25 to 50 PSI (1.75-3.5 BAR), the .75 10 FC flow control nozzle is flow regulating within a flow range of no more than 0% greater and 10% less than the nominal flow of .75 GPM (170 LPH).												
P8	P8 15° Gold R. 26-30' (7.9-9.1 m) Stream Ht. 38-58" (97-147 cm)  P8 24° Brown R. 27-33' (8.2-10.1 m) Stream Ht. 64-99" (163-251 cm) 	 Orange #86	1.07	1.17	1.27	1.36	1.45	1.53	245	261	278	294	308	323	350
		 Purple #94	1.27	1.39	1.50	1.61	1.70	1.80	290	311	329	347	365	380	412
		 Yellow #102	1.50	1.64	1.78	1.90	2.02	2.13	343	366	389	411	431	451	487
		1.25 10FC (284 LPH) 1.5 10 FC (341 LPH)	Within the recommended pressure range of 30 to 50 PSI (2-3.5 BAR), the 1.25 10 FC flow control nozzle is flow regulating within a flow range of no more than 3.5% greater and 8% less than the nominal flow of 1.25 GPM (284 LPH).												
P8	P8 24° Brown R. 27-33' (8.2-10.1 m) Stream Ht. 64-99" (163-251 cm) 	Dk. Blue #78 for use with P8 24° plate only	—	.97	1.05	1.12	1.19	1.25	—	217	230	242	254	266	286
		1.0 10FC (227 LPH) for use with P8 24° plate only	Within the recommended pressure range of 30 to 50 PSI (2-3.5 BAR), the 1.0 10 FC flow control nozzle is flow regulating within a flow range of no more than 0% greater and 10% less than the nominal flow of 1.0 GPM (227 LPH).												

The performance data in this section has been recorded under ideal test conditions and may be adversely affected by poor hydraulic entrance conditions, slope, riser tilt, temperature, wind or other factors. **Always be sure to use the nozzle size that is recommended for the plate.** The operating pressure should be within the recommended range. Only the nozzle and plate combinations grouped together in the above chart are recommended. The absence of flow data on the above chart indicates the pressure is outside the recommended range.

R 10 and R10 TURBO MOUNTING OPTIONS and ACCESSORIES

Nelson Rotator® Feedtube Assemblies

These versatile stake mounting options feature durable, UV and kink resistant flexible PVC tubing. Fast, simple installation. Easy nozzle cleaning — kink the tubing to stop the flow. Low cost, high value. 5 mm and 10 mm tubing options are available. See the Nelson Rotator® Feedtube Assemblies brochure for further details.

FT2 Feedtube

#9726-024 6 mm Steel Stake 24" (61 cm) or #10040-018 6 mm Fiberglass Stake 18" (45 cm) or #10040-024 6 mm Fiberglass Stake 24" (61 cm)

#9741-030 30" (76cm) Tubing Assy Less Stake

#9741-042 42" (107cm) Tubing Assy Less Stake

#9741-072 72" (183cm) Tubing Assy Less Stake

#9741-096 96" (244cm) Tubing Assy Less Stake

FT3 Feedtube

R10, Acme Base

5mm Tubing Options*

#12598 17" FT3 Stake & Adapter Assembly

#12600-030 Complete 17" FT3 Stake & 30" Tubing Assembly

#12600-042 Complete 17" FT3 Stake & 42" Tubing Assembly

***5 mm Tubing
O.D. = .30" (7.6 mm) I.D. = 0.19" (4.8 mm)**

5mm LTO & Tubing Assemblies	Part #
30" (76 cm)	11283-030
42" (107 cm)	11283-042
48" (122 cm)	11283-048
72" (183 cm)	11283-072
96" (244 cm)	11283-096
5mm tubing 1000' (305 m) coil	9284
5mm LTO or Barb	12023

1/2 PVC-5 mm Feedtube

R10T, Acme Base

#11271 PVC Stake Adapter (Black) 5mm

1/2" PVC Stake

5mm Tubing Options*

See Assemblies Below**

**1/2 PVC-5 Stake and Tube Assembly Options

Assembly #	Stake Length	5 mm Tubing Length	Hole Distance from Top
11284-21630	16" (40 cm)	30" (76 cm)	5.5" (14 cm)
11284-22230	22" (55 cm)	30" (76 cm)	11.3 (29 cm)
11284-22242	22" (55 cm)	42" (107 cm)	11.3 (29 cm)
11284-32230	22" (55 cm)	30" (76 cm)	1.5" (4 cm)

For FT2, FT3, 1/2 PVC-5 and 3/4 PVC-5 use Punch Tool #9349 or Drill Tool #9835-003.

3/4 PVC-5 mm Feedtube

R10T, Acme Base

#11429 PVC Stake Adapter (Black) 5mm Compression x Acme

3/4" PVC Stake

5mm Tubing Options*

#11455-12230 Complete 22" (55cm) Stake & 30" (76cm) Tubing Assy w/ Hole 11.3" (29cm) from top

10 mm Feedtube Assemblies

The 3/4 PVC-10, FT4 and FT5 Feedtube Assemblies all utilize 10 mm feedtube and connect R10 & R10 Turbo Rotators to polyethylene laterals. The 3/4 PVC-10 is a heavy-duty option that prevents damage caused by equipment, workers and animals chewing on tubing. The FT4 is for permanent connection while the FT5 has a quick connect and disconnect feature for portable lateral systems. Both assemblies are mounted with steel stakes. With the addition of collar #9195 to FT4 or FT5, they can be converted to mount on a 3/4" PVC stake.

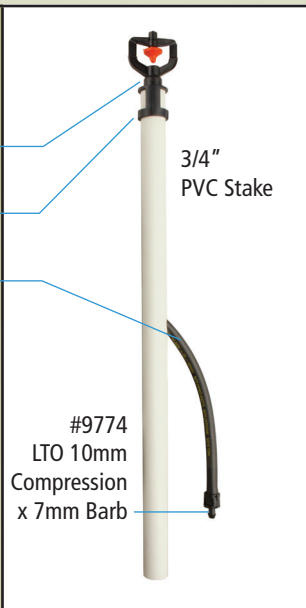
3/4 PVC-10 mm Feedtube

R10T, Acme Base

#11429 PVC Stake Adapter (Black) 10mm

#9099-036 10 mm Flexible PVC Feedtube Length = 36" (91 cm)
O.D. = .505" (13 mm)
I.D. = .355" (9.4 mm)
Bulk Coils #9099 500' (152 m)

#11452-12236 Complete 22" (55cm) Stake & 36" (91 cm) Tubing Assy w/ Hole 11.3" (29cm) from top



3/4" PVC Stake

#9774 LTO 10mm Compression x 7mm Barb

FT4 Feedtube


R10T, Acme Base

#9677 Steel Stake Adapter, Acme Thread


#9725-024 8 mm Steel Stake 24" (61 cm) or #10160 8 mm Fiberglass Stake 24" (61 cm)

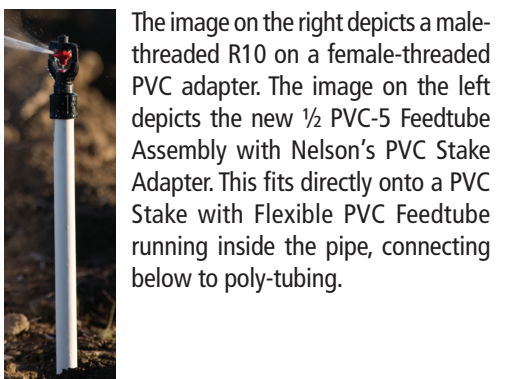
#9099-036 10 mm Flexible PVC Feedtube Length = 36" (91 cm)
O.D. = .505" (13 mm)
I.D. = .355" (9.4 mm)
Bulk Coils #9099 500' (152 m)

#9752-036 36" Tubing Assy Less Stake

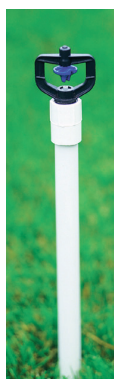


#9774 LTO 10mm Compression x 7mm Barb





The image on the right depicts a male-threaded R10 on a female-threaded PVC adapter. The image on the left depicts the new 1/2 PVC-5 Feedtube Assembly with Nelson's PVC Stake Adapter. This fits directly onto a PVC Stake with Flexible PVC Feedtube running inside the pipe, connecting below to poly-tubing.



FT5 Feedtube

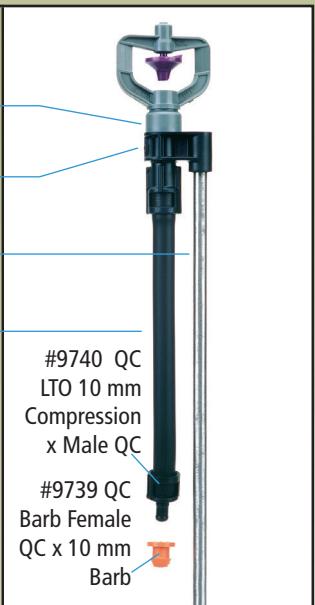
R10T, Acme Base

#9677 Steel Stake Adapter, Acme Thread

#9725-048 8 mm Steel Stake 48" (122 cm)

#9099-036 10 mm Flexible PVC Feedtube Length = 36" (91 cm)
O.D. = .505" (13 mm)
I.D. = .355" (9.4 mm)
Bulk Coils #9099 500' (152 m)

#9737-048 48" Tubing Assembly Less Stake




#9740 QC LTO 10mm Compression x Male QC

#9739 QC Barb Female QC x 10 mm Barb

For FT5 use Punch Tool #9776 or Drill Tool #9835-001.

For 3/4 PVC-10 and FT4 use Punch Tool #9810 or Drill Tool #9835-002.



Nelson R10 Stream Splitters

Choose from the Red, One-Sided Stream Splitter or the Blue, Two-Sided Stream Splitter depending on tree proximity. Simply snap on to the R10 Rotator and protect adjacent tree trunks by creating a small wedge shape in the wetted pattern. This helps keep tree trunks dry and reduces disease problems.



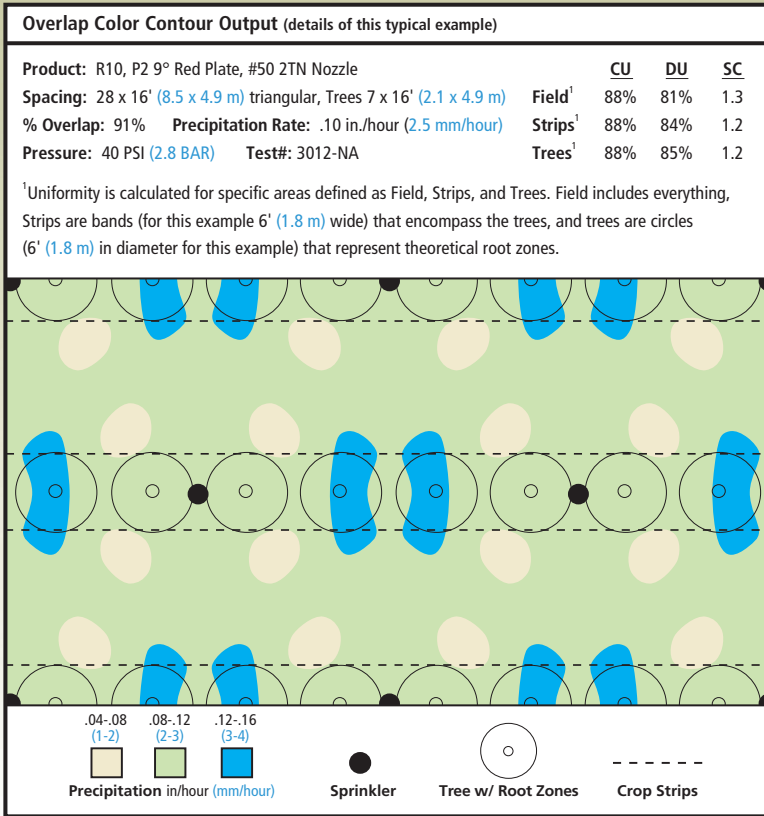
Pressure Gauge Tap Assembly #10367 (order gauge separately)



Use Stake Installation Tool #10287 for 6.3mm Steel Stake and #10288 for 8mm Steel Stake



NELSON OVERLAP SOFTWARE



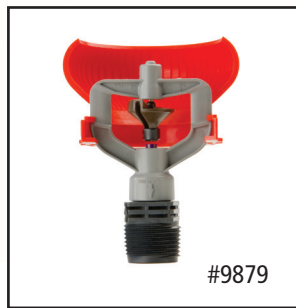
Overlap

Nelson Overlap Computer Software Package (#3001) determines the nozzle size, pressure, and optimum sprinkler spacing for your irrigation system to achieve the highest possible uniformity. Complete performance information for the R10 and R10 Turbo (including radius, stream height, and Overlap color contours with CU, DU, SC and % overlap) is available from your Nelson dealer or the Nelson factory.

Nelson Low Angle Road Guard (Red)



Nelson High Angle Road Guard (Orange)



Road guards easily snap on to convert the R10 and R10 Turbo Rotators to part-circle operation (irrigates 200°). Cutting guides are provided at 10° increments to increase the amount of arc irrigated.



WARRANTY AND DISCLAIMER

Nelson R10 & R10 Turbo Rotators, Feedtube Assemblies, and accessories are warranted for one year from the date of original sale to be free of defective material and workmanship when used within the working specifications for which the products were designed and under normal use and service. The manufacturer assumes no responsibility for installation, removal or unauthorized repair of defective parts and the manufacturer will not be liable for any crop or other consequential damages resulting from any defects or breach of warranty. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSES AND OF ALL OTHER OBLIGATIONS OR LIABILITIES OF MANUFACTURER. No agent, employee or representative of the manufacturer has authority to waive, alter or add to the provisions of this warranty nor to make any representations or warranty not contained herein.

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