

O-ring Seal (ORS) Fittings & Components

The O-ring Seal (ORS) Fitting Advantage



**Superior
Chemical
Resistance**



**Stronger
Compact
Fittings**



**No Threads
or Sealant
Required**

Hose Barb
Inlet



Full Line of Metering Orifices
Precision metering orifices for rates
as low as 16L/ha

1/8" to 3/8"
Push-In Tube
Quick Connect
Outlets

Color-coded
ORS Metering Orifices

Standard FKM O-ring Seals
FKM o-rings are used to maximize
chemical resistance & durability.

Compatible with Flow Indicators
Wilger ORS fittings are used for
both Flow Indicator & EFM systems

ORS to ORS Check Valves

Diaphragm check valves with an ORS-F outlet
for in-line outlet control to minimize dripping



When the knob is **OPEN**, it acts as a
standard 0.7bar check valve.
When the knob is **CLOSED**, it turns off
flow to that outlet ONLY. It does not turn
off flow to any other outlets.

Check Valve Style	90° Outlet	Straight
Dia. Check Valve	20550-00	20555-00
0.7BAR Manual On/Off	20551-00	20556-00
0.3BAR Manual On/Off	20551-P4	20556-P4
Air-Off Operated	20552-00	20557-00
For PWM/no-check	20553-00	20558-00

*0.3bar check valves available: change "-00" to "-P4". For ultra-low flow (<0.01 us cm), 0.3bar may be required.

ORS to COMBO-JET Check Valves

Diaphragm check valves with a Combo-Jet outlet
for spray tip or cap metering or spraying.



Check Valve Style	90° Outlet
Dia. Check Valve	20560-00
0.7BAR Manual On/Off	20561-00
0.3BAR Manual On/Off	20561-P4
Air-Off Operated	20562-00
PWM/no-check	20563-00

COMBO-JET Caps & Metering Orifices

A variety of radiallock or
COMBO-JET caps & metering
orifices are available for hose
barb, push-in-tube, spray tips,
and other adapters.



ORS Hose Barb Inlets/Outlets

O-ring seal hose barb inlets and outlets. Compatible with all ORS metering orifices.

Hose Barbs	Orientation	Part#
1/4"	Straight	20500-00
3/8"	Straight	20501-00
	90°	20511-00
1/2"	Straight	20502-00
	90°	20512-00
5/8"	90°	20514-00
3/4"	Straight	20503-00
	90°	20513-00
1"	Straight	20504-00
	90°	20515-00

ORS Outlet Adapters & Plugs

O-ring seal outlets with female threads, plugs and more.
Compatible with all ORS metering orifices for metering flow.

Type	Orientation	Part#
1/4" NPT-F	Straight	20519-00
	90°	20518-00
ORS x Sq Lug	Straight	20549-00
ORS Plug	Straight	20529-00

ORS x Square Lug adapter
adapts to any square lug
nozzle cap (e.g. Teejet/Hypro/
Varitarget). *Ensure hoses
connected are supported well.

ORS End Caps & Adapters

O-ring seal end caps are used on any ORS-M ports

Style & Size	Part#
End Cap	20521-00
Straight Hose Barb	3/8" 20544-00
	1/2" 20545-00
	3/4" 20547-00
	1" 20548-00
Push-in Tube (seals on O.D.)	1/4" 20540-00
	5/16" 20541-00
	3/8" 20542-00
	1/4" 20535-00
NPT-F Thread	3/8" 20536-00
	1/2" 20537-00
NPT-M Thread	1/4" 20530-00

ORS Splitters & Couplers

Use ORS outlet & end caps to make swiveling,
robust o-ring seal splitters, couplers and reducers.



ORS Push-in-Tube Outlets

O-ring seal quick-connect outlets that seal around the
outside diameter of a tube. Compatible with ORS orifices

Tube O.D.	Orientation	Part#
1/4"	Straight	20506-00
	Double	20509-00
	90°	20516-00
5/16"	Straight	20508-00
	90°	20528-00
3/8"	Straight	20507-00
	90°	20517-00



O-ring Seal (ORS) Parts & Manifolds

PRO TIP: Lubricate ORS fittings before assembly

When assembling any flow indicator or O-ring seal (ORS) parts, using a touch of lubricant (e.g. liquid silicone) on the O-ring makes assembly easy.

NEW ORS In-line Strainer

In-line strainer with removable 50-mesh cartridge can be reversed for universal flow direction.



Description	Part#
ORS Strainer Assembly [50 Mesh]	20576-00
Replacement Strainer [50 Mesh]	20576-02
2" ORS Spacer Assy [no strainer]	20576-05

20576-05

ORS Tees & Other Fittings

A variety of fittings for splitting manifolds, outlets or other auxiliary functions.



Description	Part#
90° ORS Elbow [M x F]	20520-00
ORS Tee w/ 1/4" NPT-F [M x M x F w/ 1/4" NPT-F]	20526-00
3/8" x Blind ORS Tee [Blind F x M x 3/8" NPT-F]	20523-00
3/8" NPT-F x ORS Tee [F x M x 1/8" NPT-F]	20524-00
2-Outlet ORS-F Splitter [F x F x M]	20527-00
1" NPT-F x ORS Tee [M x M x 1" NPT]	20525-00

O-ring Seal (ORS) Manifolds

ORS manifolds can be configured and plumbed to any size, shape or configuration to suit any application equipment needs such as liquid fertilizer manifolds, estate sprayer manifolds, or any other liquid manifold plumbing.

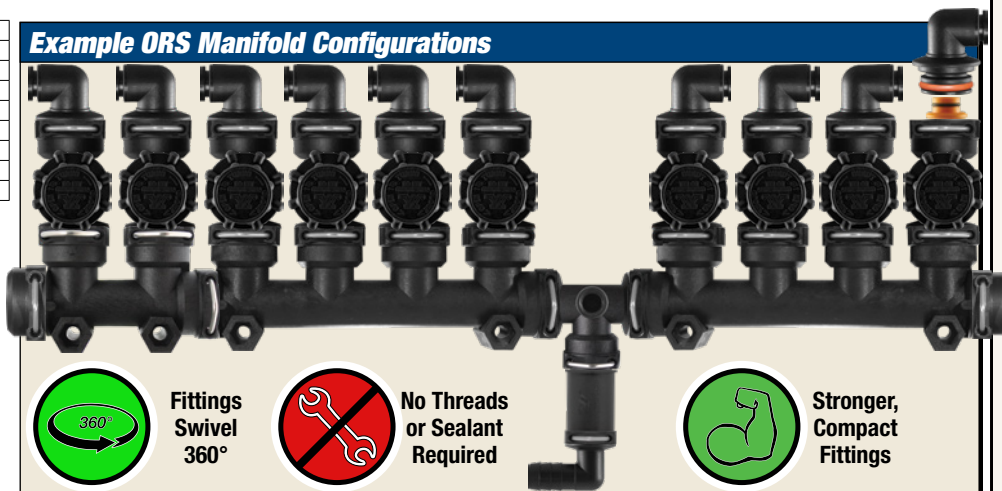


Model	O-ring	Part#
1-Outlet Manifold	FKM	20571-00
	Body only	20571-01
2-Outlet Manifold	FKM	20572-00
	Body only	20572-01
3-Outlet Manifold	FKM	20573-00
	Body only	20573-01
4-Outlet Manifold	FKM	20574-00
	Body only	20574-01



20573-01
Body only
(no u-clips or o-rings)

Example ORS Manifold Configurations



Fittings
Swivel
360°



No Threads
or Sealant
Required



Stronger,
Compact
Fittings

Replacement Parts for ORS & Flow Indicator Fittings

Replacement components for ORS Fittings/Kits

Product	Type/Material	Part#
Ball Retainer	Polypro	20460-02
U-clip	302 SS	20460-02
Flow Indicator Kit w/o Indicator Body	Manifold Feed	20460-11
	Isolated Feed	20480-02
O-rings for ORS fittings	FKM	20460-03
	VITON	20460-15
O-rings for metering orifices	FKM	40225-04
	VITON	40225-05



20460-02



20460-04



20460-03



20460-11*



40225-04

*MANIFOLD KITS INCLUDE: Ball Retainer (#20460-02), O-ring (#20460-03), 2x U-clips (#20460-04), Green Ball (#20460-08), Red Plastic Ball (#20460-06), 1/2" SS Ball (#20460-05)

Mounting Clamps for ORS

Two hole mounting clamps with 1/4" bolt-mount for ORS manifolds and flow indicators

NEW
40550-SS

Tube Size	Type	Part#
1" Sq Tube	302 SS	40550-SS
1-1/4" Sq Tube	302 SS	40551-SS
1-1/2" Sq Tube	302 SS	40552-SS



O-ring Seal (ORS) Metering Orifices & Charts

Precise metering orifices for metering liquid fertilizers, or chemicals. The easier-to-handle orifices fit in any O-ring seal (ORS-M) fitting port, and cannot be inserted backwards. Available in precision molded color-coded sizes or custom drilled sized orifices.

Drilled Orifices



Molded Orifices



Color-coded Consistent Rust-proof



Easy to Handle

Metering Orifice type, seal & ORS Orifice Part#	Molded ORS Orifice VITON O-ring	Custom Drilled Orifice FKM/viton O-ring	Blank Orifice/Plug FKM/viton O-ring
Color	21500-VXXX	21XXX-00/21XXX-V0	21000-00/2100-V0
	Color-coded*	Black	Black



Use **TIP WIZARD** for metering orifice selection

Available on

TRY IT FREE AT WWW.WILGER.NET

Download on the App Store

GET IT ON Google Play



Simply input rate, speed & spacing, and get the best orifice for the job.

Calculating required flow for metering orifice selection

To determine the flow rate (or application rate), use the following equations & density conversion chart:

W = Outlet Spacing (meters)

conv = Conversion Factor based on specific gravity/weight of liquid

$$\text{Litres/minute} = \frac{\text{L/ha} \times \text{kph} \times \text{W} \times \text{conv}}{600}$$

$$\text{L/ha} = \frac{600 \times \text{L/min (per outlet)}}{\text{kph} \times \text{W} \times \text{conv}}$$

Solution Weight (lbs/ us gallon)	Specific Gravity	Conversion Factor (conv)
8.34 (Water)	1.00	1.00
10.65 (28-0-0)	1.28	1.13
11.65 (10-34-0)	1.39	1.18

EASY-TO-USE ORS orifice and ball selector calculator available @ WWW.WILGER.NET

ORS Orifice Part #	Flow Rate (Litres/minute)							ORS Orifice Part #	Flow Rate (Litres/minute)						
	1BAR	1.5BAR	1.75BAR	2 BAR	2.25BAR	2.5 BAR	3 BAR		1BAR	1.5BAR	1.75BAR	2 BAR	2.25BAR	2.5 BAR	3 BAR
21009-XX	0.024	0.029	0.031	0.033	0.036	0.037	0.041	21075-XX	1.579	1.934	2.089	2.233	2.073	2.497	2.735
21011-XX	0.037	0.045	0.049	0.052	0.055	0.058	0.064	21078-XX	1.763	2.160	2.333	2.494	2.315	2.788	3.054
21013-XX	0.050	0.061	0.066	0.071	0.075	0.079	0.087	21500-V08	1.816	2.224	2.402	2.568	2.384	2.871	3.145
21015-XX	0.066	0.081	0.087	0.093	0.099	0.104	0.114	21081-XX	1.869	2.289	2.472	2.643	2.453	2.955	3.237
21500-V003	0.068	0.084	0.090	0.097	0.103	0.108	0.118	21083-XX	2.053	2.514	2.716	2.903	2.695	3.246	3.556
21018-XX	0.095	0.116	0.125	0.134	0.142	0.150	0.164	21086-XX	2.132	2.611	2.820	3.015	2.799	3.371	3.692
21500-V005	0.113	0.139	0.150	0.160	0.170	0.179	0.196	21089-XX	2.237	2.740	2.959	3.164	2.937	3.537	3.875
21020-XX	0.118	0.145	0.157	0.167	0.178	0.187	0.205	21500-V10	2.290	2.804	3.029	3.238	3.006	3.620	3.966
21022-XX	0.139	0.171	0.185	0.197	0.209	0.221	0.242	21091-XX	2.395	2.933	3.168	3.387	3.144	3.787	4.148
21500-V007	0.153	0.187	0.202	0.216	0.229	0.241	0.264	21093-XX	2.500	3.062	3.308	3.536	3.283	3.953	4.33
21025-XX	0.179	0.219	0.237	0.253	0.268	0.283	0.310	21096-XX	2.684	3.288	3.551	3.796	3.524	4.245	4.65
21026-XX	0.197	0.242	0.261	0.279	0.296	0.312	0.342	21500-V125	2.842	3.481	3.760	4.020	3.732	4.494	4.92
21027-XX	0.208	0.255	0.275	0.294	0.312	0.329	0.360	21102-XX	2.974	3.642	3.934	4.206	3.904	4.702	5.15
21028-XX	0.224	0.274	0.296	0.316	0.336	0.354	0.387	21104-XX	3.079	3.771	4.073	4.355	4.043	4.869	5.33
21500-V01	0.229	0.280	0.303	0.324	0.343	0.362	0.397	21107-XX	3.342	4.094	4.422	4.73	4.388	5.285	5.79
21031-XX	0.290	0.355	0.383	0.409	0.434	0.458	0.501	21500-V15	3.421	4.190	4.526	4.84	4.492	5.410	5.93
21500-V015	0.342	0.419	0.453	0.484	0.513	0.541	0.593	21110-XX	3.527	4.319	4.665	4.99	4.630	5.576	6.11
21035-XX	0.368	0.451	0.487	0.521	0.553	0.583	0.638	21113-XX	3.737	4.577	4.94	5.29	4.907	5.909	6.47
21037-XX	0.395	0.483	0.522	0.558	0.592	0.624	0.684	21116-XX	3.921	4.803	5.19	5.55	5.148	6.200	6.79
21039-XX	0.447	0.548	0.592	0.633	0.671	0.707	0.775	21120-XX	4.053	4.964	5.36	5.73	5.321	6.408	7.02
21500-V02	0.474	0.580	0.627	0.670	0.711	0.749	0.821	21125-XX	4.474	5.480	5.92	6.33	5.874	7.074	7.75
21041-XX	0.500	0.612	0.662	0.707	0.750	0.791	0.866	21500-V20	4.553	5.576	6.02	6.44	5.978	7.199	7.89
21043-XX	0.526	0.645	0.696	0.744	0.791	0.832	0.912	21128-XX	4.658	5.71	6.16	6.59	6.116	7.365	8.07
21500-V025	0.579	0.709	0.766	0.819	0.760	0.915	1.003	21130-XX	4.843	5.93	6.41	6.85	6.358	7.657	8.39
21046-XX	0.605	0.741	0.801	0.856	0.795	0.957	1.048	21136-XX	5.422	6.64	7.17	7.67	7.118	8.572	9.39
21047-XX	0.632	0.774	0.836	0.893	0.829	0.999	1.094	21140-XX	5.764	7.06	7.62	8.15	7.567	9.113	9.98
21049-XX	0.684	0.838	0.905	0.968	0.898	1.082	1.185	21144-XX	5.974	7.32	7.90	8.45	7.844	9.446	10.35
21500-V03	0.684	0.838	0.905	0.968	0.898	1.082	1.185	21147-XX	6.132	7.51	8.11	8.67	8.051	9.696	10.62
21051-XX	0.737	0.903	0.975	1.042	0.967	1.165	1.276	21150-XX	6.58	8.06	8.70	9.30	8.638	10.403	11.40
21052-XX	0.763	0.935	1.010	1.079	1.002	1.207	1.322	21152-XX	6.79	8.32	8.98	9.60	8.915	10.736	11.76
21055-XX	0.869	1.064	1.149	1.228	1.140	1.373	1.504	21156-XX	7.08	8.67	9.37	10.01	9.295	11.194	12.26
21500-V04	0.921	1.128	1.219	1.303	1.209	1.456	1.595	21161-XX	7.45	9.12	9.85	10.53	9.779	11.776	12.90
21060-XX	1.026	1.257	1.358	1.452	1.348	1.623	1.778	21166-XX	7.82	9.57	10.34	11.05	10.262	12.359	13.54
21061-XX	1.053	1.289	1.393	1.489	1.382	1.665	1.823	21172-XX	8.58	10.51	11.35	12.13	11.264	13.566	14.86
21063-XX	1.132	1.386	1.497	1.600	1.486	1.789	1.960	21177-XX	9.11	11.15	12.05	12.88	11.955	14.398	15.77
21500-V05	1.158	1.418	1.532	1.638	1.520	1.831	2.006	21182-XX	9.50	11.64	12.57	13.44	12.474	15.022	16.46
21064-XX	1.158	1.418	1.532	1.638	1.520	1.831	2.006	21187-XX	10.05	12.31	13.30	14.22	13.199	15.896	17.41
21065-XX	1.184	1.450	1.567	1.675	1.555	1.873	2.051	21196-XX	11.16	13.67	14.76	15.78	14.651	17.644	19.33
21067-XX	1.263	1.547	1.671	1.787	1.659	1.997	2.188	21205-XX	12.08	14.80	15.98	17.08	15.860	19.100	20.92
21500-V06	1.369	1.676	1.810	1.935	1.797	2.164	2.370	21213-XX	13.00	15.92	17.20	18.39	17.069	20.557	22.52
21070-XX	1.395	1.708	1.845	1.973	1.831	2.205	2.416	21218-XX	13.58	16.63	17.96	19.21	17.829	21.472	23.52
21073-XX	1.500	1.837	1.985	2.122	1.970	2.372	2.598	21234-XX	15.82	19.37	20.92	22.37	20.766	25.009	27.40
								21250-XX	18.24	22.34	24.13	25.79	23.945	28.838	31.59