

2020-21 Manufacturer's Suggested Retail Price List



All prices in Canadian currency. Effective October 1, 2020.

Prices charged by dealer or retailer may vary from manufacturer's suggested retail prices.





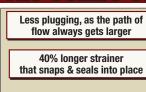






The Combo-Jet® Spray Tip Advantage

MR110-06



DR / 75% 90% 90%+ **Drift Reduction Series**

Cap color always matches flow rate

Super long-lasting stainless steel spray tip The most versatile spray tips for Pulse Width Modulation Systems (e.g. Capstan Pinpoint®/EVO®, Case AIMCommand®, John Deere ExactApply®, IntelliSpray®, Raven Hawkeye®, & more)

Spray tip & cap are held together as one piece

Easy-to-read label

Best educational spray tip charts to select the best spray tips

Combo-Jet tips use a modern pre-orifice & closed chamber design that produces significantly less drift, creating solid mass droplets, for maximum spray velocity and more meaningful spray.

Without needing consistent air induction for drift reduction

Combo-Jet spray tips are the preferred tip for Pulse Width Modulation (PWM) spraying systems.

Easy & thorough spray tip cleaning

SR, MR, DR & UR Series

To clean stainless tip Pull strainer (with pre-orifice) up and out



To clean plastic pre-orifice Push strainer sideways to release from pre-orifice

ER Series Push strainer sideways to remove



To use/replace strainer Push strainer down to snap in strainer

WILGER.NET has some of the most useful spray tip selection tools in the world. Check them out!











WILGER WEBSITE USB



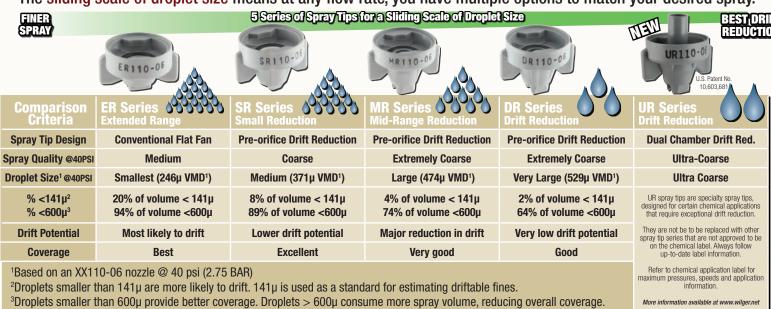




PRINTED TIP CHARTS

COMBO-JET® ER, SR, MR, DR, & UR Spray Tips - What is the difference?

The sliding scale of droplet size means at any flow rate, you have multiple options to match your desired spray.



For complete Terms and Conditions, visit www.wilger.net.

Wilger products are sold exclusively to original equipment manufacturers and authorized distributors, and are available to the end user through their retail dealerships. Prices shown are manufacturer suggested retail prices. Dealer selling prices may vary.

Warranties - Wilger warrants that its products are free of defects in material and workmanship and perform to each product's specifications. The foregoing warranties are in lieu of all other warranties, written or expressed, including, but not limited to, those concerning suitability for a particular purpose. Claims under these warranties must be made promptly within one (1) year after receipt of goods by the buyer. Any warranty action by the buyer must be expressly pre-authorized by Wilger.

Limitation of Liabilities - Except for claims for bodily injury, Wilger's liability for any and all claims arising out of the purchase of the product shall not exceed the billed or billable value of the product. In no case will Wilger be liable for any consequential damages or loss of profit, even if Wilger has been advised of the possibility of such damages.

Technical Assistance - Wilger personnel are available to provide technical assistance in the choice and use of products furnished to the buyer and will do so free of charge. Wilger assumes no obligation or liability for any such advice, or any consequences occurring as a result of the application of such advice. The buyer is solely responsible for the selection of the appropriate product(s) and the appropriate application to the intended end use.

Combo-Jet® 80° Spray Tips

Disclaimer: These charts are published for comparative purposes to demonstrate the differences in the series of Combo-Jet® spray tips. Data used to populate this chart is extrapolated from third party testing data from a controlled conditions test with water as the testing solution. Actual spray applications with active chemical ingredients may change the spray dynamics and spray tip performance specifications. Wilger is not liable for any misuse or misrepresentation of this information, leading to (but not limited to) incorrect spray application, crop damage, or any other harm. (Not limited to human, livestock or environmental). Always verify these charts with the most recent charts found on the www.wilger.net, and ALWAYS follow chemical label nozzle requirements.

Tip	Flow		Арр	licatio	n Rate	- US Ga	allons/	Acre @	20"	Spra	ay Cla	ssifica	tion, V	MD	(in μ); '	%< 14 1	μ (% [Drifta	ble Fir	1es); %	600µ	ı (%	of Sma	all Dro	plets)	Spray 1	lip, Part # & I	MSRP
Cap	Rate	PSI		Spr	ayer S _l	peed - I	Miles/H	lour			ER 80	° Serie	es		SR 80	° Serie	es		MR 80	° Seri	es		DR 80	° Serie	es	Description	Part #	MSRP
Size	USGPM		5	7.5	10	12.5	15	17.5	20		VMD			Cat	VMD	<141	<600				<600			<141				-
	0.043	30	2.6	1.7	1.3					F	149	41%						M	236		100%		276		100%	ER80-005	40270-005	\$15.24
005	0.050	40	3.0	2.0	1.5		WIL			F	137	55%		No	t sure v	vhich r	ozzle	F	201		100%	M	230		100%			-
	0.056	50	3.3	2.2	1.7					F	128	63%			straine			F	178		100%	F	200			MR80-005	40290-005	\$22.49
	0.061	60	3.6	2.4	1.8		TIP W	IZARD		F	121	68%			se 100 l		•	F	161		100%	F	178		100%	DR80-005	40280-005	\$17.51
	0.058	30	3.4	2.3	1.7			omprehe		F	180	35%	100%		es smal se 50 N			F	211	24%	100%	C	308	9%	100%	ER80-0067	40270-007	\$15.24
0067	0.067	40	4.0	2.6	2.0			charts fo	,	F	153 141	45%			es fron		•	F	182	33%	100%	M	267	13%	100%	MD00 0067	40000 007	е Ф17 E1
	0.075	50 60	4.4	3.0	2.2	HUZZIE	Tip W		able on	F	131	52% 58%	100%					F	162	40%	100%	M	239 218	17% 20%	100%	MR80-0067 DR80-0067	40290-007 40280-007	\$17.51 \$17.51
	0.002		5.1	3.4	2.6	2.1			1.3	F	156	41%	100%	М	233	21%	97%	M	148 218	46% 23%	97%	C	312	10%	94%	ER80-01	40270-007	\$11.84
	0.09	30 40	5.9	4.0	3.0	2.4	2.0	1.5	1.5	F	143	41%	100%	F	199	29%	97%	F	191	30%	97%	C	274	14%	96%	SR80-01	40270-01	\$17.51
01	0.10	50	6.6	4.4	3.3	2.7	2.2	1.9	1.7	F	134	56%	100%	F	176	36%	98%	F	173	36%	97%	M	248	17%	98%	MR80-01	40290-01	\$17.51
	0.12	60	7.3	4.8	3.6	2.9	2.4	2.1	1.8	F	128	62%	100%	F	159	41%	98%	F	159	40%	97%	M	229	19%	99%	DR80-01	40280-01	\$17.51
	0.12	30	7.7	5.1	3.9	3.1	2.6	2.2	1.9	F	180	29%	100%		262	16%	95%	С	323	10%	94%	VC	418	4%	87%	ER80-015	40270-015	\$11.84
	0.15	40	8.9	5.9	4.5	3.6	3.0	2.5	2.2	F	167	34%	100%		230	22%	96%	C	283	14%	96%	C	380	6%	90%	SR80-015	40288-015	\$17.51
015	0.17	50	10.0	6.6	5.0	4.0	3.3	2.8	2.5	F	158	39%	100%	_	207	26%	97%	M	256	17%	97%	С	353	7%	92%	MR80-015	40290-015	\$17.51
	0.18	60	10.9	7.3	5.5	4.4	3.6	3.1	2.7	F	151	42%			191	30%	97%	M	236	20%	98%	C	332	8%	94%	DR80-015	40280-015	\$17.51
	0.17	30	10.3	6.9	5.1	4.1	3.4	2.9	2.6	F	170	34%	100%		257	16%	95%	С	326	8%	94%	XC	454	3%	80%	ER80-02	40270-02	\$11.84
	0.20	40	11.9	7.9	5.9	4.8	4.0	3.4	3.0	F	161	38%	100%	_	233	20%	96%	C	298	11%	94%	VC	419	4%	84%	SR80-02	40288-02	\$17.51
02	0.22	50	13.3	8.9	6.6	5.3	4.4	3.8	3.3	F	155	42%	100%	_	216	24%	97%	C	277	14%	95%	VC	394	5%	87%	MR80-02	40290-02	\$17.51
	0.24	60	14.5	9.7	7.3	5.8	4.8	4.2	3.6	F	150	45%	100%		203	27%	98%	М	262	16%	95%	С	375	6%	88%	DR80-02	40280-02	\$17.51
	0.22	30	12.9	8.6	6.4	5.1	4.3	3.7	3.2	F	209	23%	100%		296	11%	93%	VC	425	5%	_	XC	460	3%	77%	ER80-025	40270-025	\$11.84
	0.25	40	14.9	9.9	7.4	5.9	5.0	4.2	3.7	F	194	28%	100%		268	15%	94%	С	382	6%	85%	VC	430	4%	81%	SR80-025	40288-025	\$17.51
025	0.28	50	16.6	11.1	8.3	6.6	5.5	4.7	4.2	F	182	31%	100%		248	18%	95%	C	353	8%	87%	VC	408	5%	83%	MR80-025	40290-025	\$17.51
	0.31	60	18.2	12.1	9.1	7.3	6.1	5.2	4.5	F	174	34%	100%	М	233	20%	96%	C	330	9%	89%	С	391	6%	85%	DR80-025	40280-025	\$17.51
	0.26	30	15.4	10.3	7.7	6.2	5.1	4.4	3.9	F	228	23%	99%	C	344	9%	89%	VC	432	5%	81%	XC	481	3%	72%	ER80-03	40270-03	\$11.84
	0.30	40	17.8	11.9	8.9	7.1	5.9	5.1	4.5	F	215	26%	99%	C	309	12%	91%	С	390	7%	85%	VC	447	4%	77%	SR80-03	40288-03	\$17.51
03	0.34	50	19.9	13.3	10.0	8.0	6.6	5.7	5.0	F	205	29%	99%	С	285	15%	92%	С	360	8%	88%	VC	422	5%	80%	MR80-03	40290-03	\$17.51
	0.37	60	21.8	14.5	10.9	8.7	7.3	6.2	5.5	F	197	32%	99%	М	266	17%	93%	C	337	9%	89%	С	403	6%	83%	DR80-03	40280-03	\$17.51
	0.35	30	20.6	13.7	10.3	8.2	6.9	5.9	5.1	М	230	21%	99%	С	344	7%	87%	VC	420	5%	80%	XC	543	2%	62%	ER80-04	40270-04	\$11.84
	0.40	40	23.8	15.8	11.9	9.5	7.9	6.8	5.9	M	216	24%	99%	C	310	10%	89%	С	385	7%	84%	XC	507	3%	68%	SR80-04	40288-04	\$17.51
04	0.45	50	26.6	17.7	13.3	10.6	8.9	7.6	6.6	F	206	26%	99%	C	286	12%	91%	C	360	9%	86%	XC	480	4%	72%	MR80-04	40290-04	\$17.51
	0.49	60	29.1	19.4	14.5	11.6	9.7	8.3	7.3	F	198	28%	99%	М	267	14%	92%	C	341	10%	88%	XC	460	4%	75%	DR80-04	40280-04	\$17.51
	0.43	30	25.7	17.1	12.9	10.3	8.6	7.3	6.4	M	267	16%	95%	С	381	7%	83%	XC	504	3%	68%	XC	574	2%	56%	ER80-05	40270-05	\$11.84
	0.50	40	29.7	19.8	14.9	11.9	9.9	8.5	7.4	M	248	20%	95%	C	342	10%	86%	VC	466	4%	73%	XC	538	2%	62%	SR80-05	40288-05	\$17.51
05	0.56	50	33.2	22.1	16.6	13.3	11.1	9.5	8.3	M	235	22%	95%	C	314	12%	87%	VC	438	5%	77%	XC	512	3%	67%	MR80-05	40290-05	\$17.51
	0.61	60	36.4	24.2	18.2	14.5	12.1	10.4	9.1	M	224	25%	95%	C	293	14%	89%	VC	417	6%	79%	XC	492	3%	70%	DR80-05	40280-05	\$17.51
	0.52	30	30.9	20.6	15.4	12.3	10.3	8.8	7.7	С	296	17%	91%	VC	420	5%	81%	XC	526	2%	64%	XC	596	1%	51%	ER80-06	40270-06	\$11.84
	0.60	40	35.6	23.8	17.8	14.3	11.9	10.2	8.9	С	279	20%	91%	С	390	7%	84%	XC	492	3%	70%	XC	564	2%	57%	SR80-06	40288-06	\$17.51
06	0.67	50	39.8	26.6	19.9	15.9	13.3	11.4	10.0	С	267	22%	90%	С	368	8%	86%	VC	468	4%	73%	XC	540	2%	61%	MR80-06	40290-06	\$17.51
	0.73	60	43.6	29.1	21.8	17.5	14.5	12.5	10.9	М	257	24%	90%	С	351	9%	88%	VC	448	5%	76%	XC	521	3%	64%	DR80-06	40280-06	\$17.51
	0.69	30	41.2	27.4	20.6	16.5	13.7	11.8	10.3	С	317	17%	90%	UC		8%	59%	UC	540	6%	63%	UC	619	3%	52%	ER80-08	40270-08	\$11.84
	0.80	40	47.5	31.7	23.8	19.0	15.8	13.6	11.9	M	286	21%	93%	XC	449	9%	66%	UC	500	8%	69%	UC	585	4%	58%	SR80-08	40288-08	\$17.51
08	0.89	50	53.1	35.4	26.6	21.3	17.7	15.2	13.3	М	264	23%	94%	XC		10%	71%	XC	470	9%	73%	UC	559	5%	62%	MR80-08	40290-08	\$17.51
	0.98	60	58.2	38.8	29.1	23.3	19.4	16.6	14.5	F	247	26%	95%	XC	390	11%	74%	XC	448	10%	76%	UC	539	5%	65%	DR80-08	40280-08	\$17.51
	0.87	30	51.4	34.3	25.7	20.6	17.1	14.7	12.9	XC	405	12%		UC	512	7%	55%	UC	546	5%	62%	UC	611	4%	52%	ER80-10	40270-10	\$11.84
	1.00	40	59.4	39.6	29.7	23.8	19.8	17.0	14.9	C	371	14%		XC		8%	63%	UC	513	6%	67%	UC	582	5%	57%	SR80-10	40288-10	\$17.51
10	1.12	50	66.4	44.3	33.2	26.6	22.1	19.0	16.6	C	346	16%				9%		UC	489	7%	70%	UC	561	6%	60%	MR80-10	40290-10	\$17.51
	1.22	60	72.7	48.5	36.4	29.1	24.2	20.8	18.2	M	328		87%			10%	71%		470	8%			544	6%	63%	DR80-10	40280-10	\$17.51
	1.08	30	64.3	42.9	32.2	25.7	21.4	18.4	16.1	XC	413	11%	81%	UC	509	7%	55%	UC	585	5%	56%	UC	624	4%	50%	ER80-125	40270-125	\$11.84
	1.25	40	74.3	49.5	37.1	29.7	24.8	21.2	18.6	VC	383	13%		XC		8%		UC	556	6%	60%	UC	595	5%	54%	SR80-125	40288-125	\$17.51
125	1.40	50	83.0	55.3	41.5	33.2	27.7	23.7	20.8	VC	362	14%		XC		9%		UC	535	7%	63%	UC	574	5%	57%	MR80-125	40290-125	\$17.51
	1.53	60	90.9	60.6	45.5	36.4	30.3	26.0	22.7	С		15%		XC		10%		UC	519	8%	66%	UC	557	6%	59%	DR80-125	40280-125	\$17.51
	1.30	30	77.2	51.4	38.6	30.9	25.7	22.0	19.3	XC	412	10%		UC	554	6%	47%	UC	513	7%	66%	UC	637	3%	48%	ER80-15	40270-15	\$11.84
	1.50	40	89.1	59.4	44.6	35.6	29.7	25.5	22.3	VC	379		81%	UC		6%	53%	UC	480	8%	70%	UC	605	3%	53%	SR80-15	40288-15	\$17.51
15	1.68	50	99.6	66.4	49.8	39.8	33.2	28.5	24.9	C	355	14%		UC		7%	58%	XC	456	9%	73%	UC	581	4%	57%	MR80-15	40290-15	\$17.51
	1.84	60	109.1	72.7	54.6	43.6	36.4	31.2		C	337		83%	_		7%	61%	XC	438	10%	75%	UC	562	4%	59%	DR80-15	40280-15	\$17.51
	1.73	30	103	68.6	51.4	41.2	34.3	29.4	25.7	XC	460	9%	73%	UC	-	5%	48%	UC	564	5%	58%	UC	628	3%	50%	ER80-20	40270-20	\$11.84
	2.00	40	119	79.2	59.4	47.5	39.6	33.9		XC	427	11%		UC		6%		UC	523	6%	64%	UC	587	4%	56%	SR80-20	40288-20	\$17.51
20	2.24	50	133	88.5	66.4	53.1	44.3	37.9	33.2	VC	403	12%		UC		7%		UC	494	7%	68%	UC	556	4%	61%	MR80-20	40290-20	\$17.51
	2.45	60	145	97	72.7	58.2	48.5	41.6	36.4	C		13%		XC	_	7%	62%	XC	472	8%	71%	UC	533	5%	64%	DR80-20	40280-20	\$17.51
	2.17	30	129	85.7	64.3	51.4	42.9	36.7	32.2		462	10%		UC		5%	54%	UC	604	4%	55%	UC	657	3%	46%	ER80-25	40270-25	\$11.84
	2.50	40	149	99	74.3	59.4	49.5	42.4	37.1	XC	427	11%		UC		6%	59%	UC	566	4%	60%	UC	617	3%	52%	SR80-25	40288-25	\$17.51
25	2.80	50	166	111	83	66.4	55.3	47.4	41.5	VC	402	12%				7%	62%	UC	539	5%	63%	UC	587	3%	57%	MR80-25	40290-25	\$17.51
	3.06	60	182	121	91	72.7	60.6	52.0	45.5			13%					65%	_		5%	66%	UC	563	4%	60%	DR80-25	40280-25	\$17.51
NOTE:	SR, MR, [OR, UR s	spray tips	include p	re-orifice	e(s). Pre-c	rifices are	e not inter	changea	ble bet	ween di	fferent sp	oray tips	of diff	erent seri	ies.												
	Shown ap	plicatio	n informa	ation is ba	ised on w	rater @ 8	0°F in a c	controlled	environm	nent an	d should	d not be	consider	ed act	ual. Infori	mation is	provided	d for co	mpariso	n to othe	er Combo	-Jet®	spray tip	ps, for ed	ducationa	al purposes only. I	Repeat testing res	sults can vary.
	Upcharge							 วกวก	\$	1.91																		
202	20-21 Ca	ıııadlal	i Micelli	St (UDIN)	o)- ElleC	LIVE UCTO	UDU I, Z	<u> </u>							2													

COMBO-JET® 110° Spray Tips

For the full chart of pressures, speeds and droplet size, refer to Tip Wizard or the Combo-Jet® Spray Tip Brochure.

Disclaimer: These charts are published for comparative purposes to demonstrate the differences in the series of Combo-Jet® spray tips. Data used to populate this chart is extrapolated from third party testing data from a controlled conditions test with water as the testing solution. Actual spray applications with active chemical ingredients may change the spray dynamics and spray tip performance specifications. Wilger is not liable for any misuse or misrepresentation of this information, leading to (but not limited to) incorrect spray application, crop damage, or any other harm. (Not limited to human, livestock or environmental). Always verify these charts with the most recent charts found on the www.wilger.net, and ALWAYS follow chemical label nozzle requirements.

ASABE Spray Classification (ASABE S572.1 Standard)
Spray quality is categorized based on Dv0.1 and VMID droplet sizes. Spray quality is categorized based on Dv0.1 and VMD droplet sizes.

Objective testing data (by 3rd party), from spray spectrum recording equipment (without wind tunnel use), has been used to classify spray quality for this chart. Extra data (e.g. VMD, etc.) can vary between testing equipment and method, and is provided as an educational resource only. **More information **@ Wilger.net**.

Fine (F) Medium (M) Coarse (C)
Very Coarse (VC) Very Coarse (VC)

Extremely Coarse (XC)

Ultra Coarse (UC) VMD (Volume Median Diameter) Size of the median droplet (in u) for a nade up of droplets smaller than VMD with half made up of droplets larger

% <141μ (% Driftable Fines) Percentage of volume which is likely to drift. As wind conditions and boom height increase, observed spray drift will increase substantially

% <600µ (% of Small Droplets) Percentage of volume which is made up of 'small' droplets, useful for coverage. As % of useful droplets lowers, overall coverage is reduced.

_	TIDS SIZEO	1 up to 110	-Ub ventied d	n Phase Do	opier Particie	e Analyzer (PL	JPA); tips sz	ed over 110	-Uo vern	ied on Malveri	1.			oarse (
Tip	Flow			•		- US (_	-			nall dro	-				ip Descript	
Cap	Rate US gpm	PSI	Sp	rayer	Spee	d - Mi	les/H	our		ER 11	0° Ser	ies		SR 11					0° Ser				0° Ser				Series			#, & MSRP	
SIZE	oo gpiii		5	7.5	10	12.5	15	20	Cla	VMD	<141	<600	Cla	VMD	<141	<600	Cla	VMD	<141	<600	Cla	VMD	<141	<600	Cla VI	MD* <	<141* •	<600	Description	Part #	MSRP
	0.09	30	5.1	3.4	2.6	2.1	1.7	1.3	F	140	51%	100%				DD015	Ton F3		Hom om	mann (The	v coll	or:Hom							Snap-ir	ı Strainer Sizi	ng:
01	0.10	40	5.9	4.0	3.0	2.4	2.0	1.5	F	133	56%	100%		WILGE					ilersp ie & sne					nacina	is availa	hle on	n Tip Wiz	zard	100 mesh strain		
01	0.11	50	6.6	4.4	3.3	2.7	2.2	1.7	F	128	59%	100%		*													ı.wilge		50 mesh straine	r (#40250-00) fo	r -02 to -06
	0.12	60	7.3	4.8	3.6	2.9	2.4	1.8	F	124	62%	100%	T	IP WIZ	ARD	Domine	, a a	.p ***.2u			, 0	mar cpri	orror tak	,,,,,,,,,,	.00 it ut		90		ER110-01	40281-01	\$11.84
	0.13	30	7.7	5.1	3.9	3.1	2.6	1.9	F	145	47%	100%	F	215	24%	98%	C	322	11%	94%	C	366	7%	92%	-	-	-	-	ER110-015	40281-015	\$11.84
045	0.15	40	8.9	5.9	4.5	3.6	3.0	2.2	F	139	52%	100%	F	199	28%	98%	C	277	16%	97%	C	328	10%	94%	-	-	-	-	SR110-015	40287-015	\$17.51
015	0.17	50	10.0	6.6	5.0	4.0	3.3	2.5	F	134	55%	100%	F	187	32%	98%	M	247	20%	99%	С	301	12%	95%	-	-	-	-	MR110-015	40291-015	\$17.51
	0.18	60	10.9	7.3	5.5	4.4	3.6	2.7	F	131	58%	100%	F	177	34%	98%	М	225	23%	99%	С	281	14%	96%	-	-	-	-	DR110-015	40286-015	\$17.51
	0.17	30	10.3		5.1	4.1	3.4	2.6	F	160	39%	100%	М	219	23%	99%	С	315	12%	95%	VC	431	5%	82%	-	-	-	-	ER110-02	40281-02	\$11.84
	0.20	40	11.9	7.9	5.9	4.8	4.0	3.0	F	151	45%	100%	F	206	26%	99%	C	279	15%	97%	VC	392	7%	87%	-	-	-	-	SR110-02	40287-02	\$17.51
02	0.22	50	13.3	8.9	6.6	5.3	4.4	3.3	F	144	49%	100%	F	196	29%	99%	M	254	19%	97%	C	361	8%	90%		-	_	_	MR110-02	40291-02	\$17.51
	0.24	60	14.5	9.7	7.3	5.8	4.8	3.6	F	138	52%	100%	F	188	31%	99%	M	235	21%	98%	C	336	9%	92%		_	_	_	DR110-02	40286-02	\$17.51
	0.22	30	12.9			5.1	4.3	3.2	F	186	29%			236	20%	98%	С	350	9%	91%	VC		5%	80%					ER110-025	40281-025	
-					6.4							100%	M				-								ME	w ur	110±02	25			+
005	0.23	35	13.9	9.3	6.9	5.6	4.6	3.5	F	183	30%	100%	M	228	21%	98%	C	334	10%	92%	VC	414	6%	83%			rmatio		SR110-025	40287-025	
025	0.25	40	14.9	9.9	7.4	5.9	5.0	3.7	F	181	30%	100%	M	222	23%	98%	С	320	11%	93%	VC		7%	86%			n 2020 ite for i		MR110-025	40291-025	
	0.28	50	16.6		8.3	6.6	5.5	4.2	F	176	30%	100%	F	211	25%	98%	C	296	13%		C	370	8%	89%			te char		DR110-025	40286-025	+
	0.31	60	18.2		9.1	7.3	6.1	4.5	F	173	31%	100%	F	203	27%	98%	С	277	15%	96%	С	347	9%	92%					UR110-025	40292-025	
	0.26	30	15.4		7.7	6.2	5.1	3.9	F	183	31%	99%	С	303	11%	95%	VC	394	6%	86%	XC	479	4%	74%	ME	W/IID	3110±0	3	ER110-03	40281-03	\$11.84
	0.28	35	16.7	11.1	8.3	6.7	5.6	4.2	F	178	33%	99%	С	290	13%	95%	С	376	8%	89%	XC	460	4%	77%			rmatio		SR110-03	40287-03	\$17.51
03	0.30	40	17.8	11.9	8.9	7.1	5.9	4.5	F	173	35%	98%	C	279	15%	96%	C	360	9%	91%	VC	443	5%	80%	CC	me iı	n 2020		MR110-03	40291-03	\$17.51
	0.34	50	19.9	13.3	10.0	8.0	6.6	5.0	F	165	37%	98%	M	260	17%	97%	C	333	10%	93%	VC	414	6%	84%			te for i te char		DR110-03	40286-03	\$17.51
	0.37	60	21.8	14.5	10.9	8.7	7.3	5.5	F	159	39%	97%	M	244	19%	97%	C	311	12%	94%	C	391	6%	86%	up-i	.v-uai	le Gilai	15.	UR110-03	40292-03	\$27.70
	0.35	30	20.6	13.7	10.3	8.2	6.9	5.1	М	225	22%	97%	С	314	11%	94%	VC	416	5%	84%	XC	510	3%	69%	UC				ER110-04	40281-04	\$11.84
	0.37	35	22.2	14.8	11.1	8.9	7.4	5.6	М	220	23%	100%	С	300	12%	95%	VC	395	6%	87%	ХC	488	4%	73%			specialty sp ultra coarse		SR110-04	40287-04	\$17.51
04	0.40	40	23.8				7.9	5.9	F	215	24%	96%	C	288	14%	95%	С	377	7%	89%	VC		4%	76%	IIC Re		chemical		MR110-04	40291-04	\$17.51
	0.45	50	26.6	17.7	13.3		8.9	6.6	F	206	26%	96%	M	269	16%	96%	C	346	8%	92%	VC		5%	80%	101		num presi Ind applic		DR110-04	40286-04	\$17.51
	0.49	60	29.1			11.6		7.3	F	199	28%	96%	M	253	17%	96%	C	321	9%	94%	VC		6%	83%	UC		rmation.	auon	UR110-04	40292-04	\$27.70
		30			12.9		8.6	6.4		226	22%	95%	C	355	8%	91%	XC	486	3%	72%	XC	530	2%	63%	UC					40281-05	\$11.84
	0.43								M				-												Uni		specialty sp		ER110-05		+
	0.47	35	27.8			11.1	9.3	6.9	M	220	24%	95%	C	338	10%	93%	XC	464	4%	75%	XC	516	2%	66%	= D		ultra coarse chemical		SR110-05	40287-05	\$17.51
05	0.50	40		19.8			9.9	7.4	F	212	26%	95%	C	322	11%	93%	VC	445	5%	78%	XC	503	3%	68%	for	maxim	num pres	sures,	MR110-05	40291-05	\$17.51
	0.56	50	33.2					8.3	F	202	28%	95%	С	296	13%	95%	VC	412	6%	82%	XC	482	3%	72%	UC sp		ind applic ormation.	ation	DR110-05	40286-05	\$17.51
	0.61	60				14.5		9.1	F	194	30%	95%	С	275	15%	96%	С	386	7%	85%	XC	465	3%	74%	UG				UR110-05	40292-05	\$27.70
	0.52	30	30.9	20.6	15.4	12.3	10.3	7.7	M	261	18%	94%	VC	416	6%	84%	XC	507	3%	68%	XC	565	2%	57%	UC UR 1	ips are s	specialty sp	ray tips	ER110-06	40281-06	\$11.84
	0.56	35	33.3	22.2	16.7	13.3	11.1	8.3	M	253	19%	94%	С	392	7%	87%	XC	490	4%	71%	XC	546	2%	61%			ultra coarse		SR110-06	40287-06	\$17.51
06	0.60	40	35.6	23.8	17.8	14.3	11.9	8.9	M	246	20%	94%	C	371	8%	89%	XC	474	4%	74%	XC	529	2%	64%			chemical num pres:		MR110-06	40291-06	\$17.51
	0.67	50	39.8	26.6	19.9	15.9	13.3	10.0	M	235	22%	95%	C	337	10%	92%	VC	448	4%	78%	XC	501	3%	68%		eeds a	ind applic		DR110-06	40286-06	\$17.51
	0.73	60	43.6	29.1	21.8	17.5	14.5	10.9	M	225	24%	95%	C	308	12%	93%	VC	427	5%	81%	XC	478	3%	71%	UC	Into	rmation.		UR110-06	40292-06	\$27.70
	0.69	30	41.2	27.4	20.6	16.5	13.7	10.3	С	290	17%	93%	XC	453	6%	67%	UC	531	4%	53%	UC	614	3%	40%	UC IID I	ine are e	enocialty en	aray tine	ER110-08	40281-08	\$11.84
	0.75	35	44.5				14.8		М	276	19%	94%	XC	429	7%	71%	UC	506	5%	57%	UC	590	3%	44%	UIT		specialty sp ultra coarse		SR110-08	40287-08	\$17.51
08	0.80	40				19.0			M	264	20%	95%	XC		7%	74%	UC		5%	61%	UC	569	4%	47%	TIC Re		chemical		MR110-08	40291-08	\$17.51
	0.89	50		35.4					M	244	22%	95%	VC		9%	79%	XC	446	6%	67%	UC	534	4%	51%			num presand applic		DR110-08	40286-08	\$17.51
	0.98	60	58.2			23.3			_	228	23%	96%	C	346	10%	82%	XC	416	7%	70%	UC		4%		UC		rmation.		UR110-08	40292-08	\$27.70
	0.87					20.6					4.407	90%			001	62%	wa	500	4%	53%	l ma	000	5%		IIC				ER110-10	40281-10	
	0.87	30				22.2					14%				6% 7%	67%	UC		5%	56%	UC		5%	41% 57%			specialty sp ultra coarse		SR110-10	40287-10	
10		35										1				70%	-		1		=				_		chemical		MR110-10		•
10	1.00	40				23.8					17%			424	7%				5%	59%	UC		5%	45%	for	maxim	num pres	sures,		40291-10	
	1.12					26.6			-				_		8%	75%			6%		=		6%	49%	_		ind applic ormation.	duon	DR110-10	40286-10	_
	1.22	60				29.1			_		21%				9%	79%	-		6%		UC		6%	52%	UC				UR110-10	40292-10	
	1.08					25.7			_			76%			5%		UC		4%		UC		3%	35%		serie		t	ER110-125	40281-125	
125	1.25					29.7					11%	80%			6%	70%	UC		4%	47%	UC		4%	39%			lly avail			40287-125	
	1.40	50	83.0	55.3	41.5	33.2	27.7	20.8	C	336	12%	83%	XC	386	7%		UC		5%	52%	UC	592	4%	42%		in t			MR110-125	40291-125	
	1.53	60	90.9	60.6	45.5	36.4	30.3	22.7	C	319	13%	85%	VC	355	7%	78%	UC	506	5%	55%	UC	572	5%	44%		110-1	125 size		DR110-125	40286-125	\$17.51
	1.30	30	77.2	51.4	38.6	30.9	25.7	19.3	XC	398	10%	72%	UC	538	5%	51%	UC	608	4%	40%	UC	659	3%	40%	110	eoric	es is no	t	ER110-15	40281-15	\$11.84
4.5	1.50	40	89.1	59.4	44.6	35.6	29.7	22.3	VC	370	12%	76%	UC	496	6%	58%	UC	574	4%	45%	UC	624	4%	46%					SR110-15	40287-15	\$17.51
15	1.68					39.8					13%				6%	64%			5%		UC		4%	50%					MR110-15	40291-15	\$17.51
	1.84	60				43.6					14%			436	7%	67%			5%		UC		4%	53%	UF				DR110-15	40286-15	\$17.51
	1.73	30				41.2					8%	64%	_		6%		UC		4%	42%	-	-	-	-					ER110-20	40281-20	\$11.84
	2.00	40				47.5					9%	68%	_		6%	62%	UC		5%	48%	-	-	-	-					SR110-20	40287-20	\$17.51
20	2.24	50				53.1					9%	72%			7%		UC		6%	52%	Ē		-	-		ercial in t	lly avail the		MR110-20	40291-20	\$17.51
																	=						-	-	UI		20 size		WII 11 10-20	+0231-20	ψ17.31
NOTE	2.45		140	97.0	12.1	30.2	40.5	30.4	λU	3/9	10%	14%	ΛU	424	8%	70%	UC	506	6%	55%	-	-		-							

4

Combo-Jet® 110° Spray Tip Charts For PWM Sprayers

The following charts are based on spraying water in controlled settings, and cannot be replicated in field application. For educational use only to compare different series of spray tips of the same size. Standard PWM valve specifications are used to illustrate pressure drop. Check with your PWM manufacturer to verify pressure drop specifications, and match chart with appropriate tip pressures.

		F1				Speed I	Range (Ro	ounded)		Ė	Spra	y Clas	sificat	tion;	VMD	(Drop	let Si	ze in	μ); %	<141	μ (Dri	ftabl	e Fine	es); %	600	μ (Sm	all D	roplets)	Spray Tip	& Part No.
Si	ze	Kate	Boom PSI	Tip PSI		@ US Gal	/Acre; 20	" Spacing		EF	R110	Ser	ies	SF	R110	Seri	ies	MR	110	Seri	es	DR	110	Ser	ies	UR	110	Seri	es	Spray Tip	Part #
	ľ	JSGPM			5 GPA	7.5 GPA	10 GPA	12.5 GPA	15 GPA	Class	VMD	<141	<600	Class	VMD	<141	<600	Class	VMD	<141 ·	<600	Class	VMD	<141	<600	Class	VMD	<141	<600	opiuj iip	· u··· »
		0.13	30	30	2-8	1-5	1-4	1-3	1-3	F	145	47%	100%	F	216	24%	98%	С	323	11% !	94%	C	368	7%	92%					ER110-015	40281-015
	Щ	0.14	35	35	2-8	1-6	1-4	1-3	1-3	F	142	49%	99%	F	207	26%	98%	С	298	14% !	96%	С	346	8%	93%					SR110-015	40287-015
0	15	0.15	40	40	2-9	1-6	1-4	1-4	1-3	F	139	51%	100%	F	200	28%	98%	С	279	16% !	97%	С	329	10%	94%					MR110-015	40291-015
	Ц	0.17	50	50	2-10	2-7	1-5	1-4	1-3	F	135	55%	100%	F	188	32%	98%	M	248	20% !	98%	С	302	12%	95%					DR110-015	40286-015
		0.18	60	59	3-11	2-7	1-5	1-4	1-4	F	131	58%	100%	F	178	34%	98%	M	226	23% !	99%	С	282	14%	96%						
		0.17	30	29	3-10	2-7	1-5	1-4	1-3	F	160	39%	100%	M	220	22%	99%	С	317	11% !	95%	VC	433	5%	82%					ER110-02	40281-02
		0.19	35	34	3-11	2-7	1-6	1-4	1-4	F	155	42%	100%	F	213	24%	99%	С	297	13% !	96%	VC	412	6%	85%					SR110-02	40287-02
0	2	0.20	40	39	3-12	2-8	1-6	1-5	1-4	F	151	45%	100%	F	207	26%	99%	С	281	15% !	97%	VC	394	6%	87%					MR110-02	40291-02
		0.22	50	49	3-13	2-9	2-7	1-5	1-4	F	144	49%	100%	F	197	28%	99%	M	256	18% !	97%	C	364	8%	90%					DR110-02	40286-02
		0.24	60	59	4-14	2-10	2-7	1-6	1-5	F	138	52%	100%	F	189	31%	99%	M	237	21% !	98%	C	339	9%	91%						
	Ц	0.21	30	29	3-13	2-8	2-6	1-5	1-4	F	187	29%	100%	M	237	19%	98%	С	353	8% !				5%	79%	MI	107 ATT	n10=0	กล	ER110-025	40281-025
	Ц	0.23	35	34	3-14	2-9	2-7	1-5	1-5	F	184	29%	100%	M	230	21%	98%	С	337	10% !	92%	VC	418	6%	83%			rmatio		SR110-025	40287-025
0:	25	0.25	40	39	4-15	2-10	2-7	1-6	1-5	F	181	30%	100%	M	223	22%	98%	С	322	11% !	93%	VC	401	6%	86%			n 2020		MR110-025	40291-025
	Ц	0.28	50	49	4-16	3-11	2-8	2-7	1-5	F	177	30%	100%	F	213	25%	98%	С	299	13% !	95%	С	373	8%	89%			ite for te cha		DR110-025	40286-025
		0.30	60	58	4-18	3-12	2-9	2-7	1-6	F	173	31%	100%	F	204	27%	98%	С	280	15% !	96%	С	350	9%	91%	up.				UR110-025	40292-025
		0.26	30	29	4-15	3-10	2-8	2-6	1-5	F	185	31%	99%	С	307	11%	95%	VC	399	6%	86%	XC	484	3%	73%	DATE	300 OT	?a110±0	າຄ	ER110-03	40281-03
		0.28	35	34	4-16	3-11	2-8	2-7	1-5	F	179	33%	98%	C	293	13%	95%	С	380	7%	88%	XC	464	4%	77%			ormatic		SR110-03	40287-03
0	3	0.29	40	39	4-17	3-12	2-9	2-7	1-6	F	175	34%	98%	С	282	14%	96%	С	364	8% !	90%	VC	447	5%	79%			n 2020		MR110-03	40291-03
		0.33	50	48	5-20	3-13	2-10	2-8	2-7	F	167	37%	98%	M	263	17%	97%	С	337	10% !	93%	VC	419	6%	83%			ite for te cha		DR110-03	40286-03
		0.36	60	58	5-21	4-14	3-11	2-9	2-7	F	160	39%	97%	M	247	19%	97%	С	315	11% !	94%	C	396	6%	86%	- up	io uu	to ona		UR110-03	40292-03

PWM Duty Cycle (Effective "on-time" of solenoid) PWM systems adjust rates by the length of time the solenoid stays open, in order to keep pressure constant for controlled spray quality. Duty cycle is calculated by dividing your travel speed into the max speed of the spray tip at your pressure. Min/Max operating duty cycles are 40-100%. (confirm with your PWM mfg.)

VMD (in μ) (Volume Median Diameter) Size of the median droplet (in μ) for a sprayed volume. Half of the volume is made up of droplets smaller than VMD, with half made of droplets larger.

% <141μ (% Driftable Fines) Percentage of volume which is likely to drift. As wind conditions and boom height increase, observed spray drift will increase substantially. Try keep the %<141µ to a minimum.

% <600µ (% Useful Droplets) Percentage of volume which is made up of 'small' droplets. As % of useful droplets lowers, coverage is reduced. Try maintaining highest %<600, while keeping %<141µ as low as possible. ASABE Spray Classification Fine (F)

(ASABE S572.1 Standard)
Spray quality is categorized based on Dv0.1 and VMD droplet sizes by 3rd party testing from spray spectrum recording equipment.

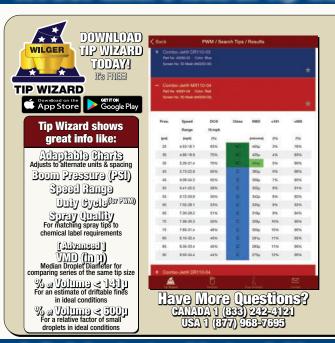
Medium (M) Coarse (C) Very Coarse (VC) Extr. Coarse (XC)

PWM CHARTS

ope	rating duty (cycles a	re 40-11	UU%. (CONTIF	m with your F	www.mrg.)	VMD, with	half made of	drople	ts large	er. Iry	keep tr	16 %<	141µ to	a min	ilmum.	_ L	eeping	%<14	1µ as io	ow as p	ossible	IJL	spray s	pectru	ım recording equipment.	Ultra Co	oarse (UC)
	Flow			S	prayer Sp	eed Rang	e (Rounde	ed)		5	Spray Cl	lassifi	catio	on; VM	ID (D	rople	et Siz	e in µ); %<	:141µ	(Drif	t %);	%<6	00µ (Sı	mall	Droplets)	Spray Tip	& Part #
Siz	Rate	BOOM PSI	TIP PSI	@	US Gallon	s/Acre on	20" Spac	ing	EF	R110) Serie	es	SR	110 9	Seri	es	MR	110	Ser	ies	DR	110	Ser	ies	U	R110 Series	Spray Tip	Part #
	USGPM			5 GPA	7.5 GPA	10 GPA	15 GPA	20 GPA	Class	VMD	<141 <	600 C	lass	VMD <	:141 <	<600	Class	VMD	<141	<600	Class	VMD	<141	<600 0	class	UR Tip Usage	opiuj iip	Turt ii
	0.34	30	28	5-20	3-13	2-10	2-7	1-5	M	228	21% 9	97%	C	319 1	0% 9	93%	-	-	-	-	-	-	-	-	-	UR tips are specialty	ER110-04	40281-04
	0.36	35	33	5-22	4-14	3-11	2-7	1-5	M	222	23% 9	97%	C	306 1	2% 9	94%	VC	404	5%	86%	XC	497	3%	71%	-	spray tips to produce ultra coarse spray.	SR110-04	40287-04
	0.39	40	37	6-23	4-15	3-12	2-8	1-6	M	217	24% 9	97%	C	294 1	3% 9	95%	С	386	6%	88%	XC	478	4%	74%	UC	Refer to chemical	MR110-04	40291-04
04	0.43	50	47	6-26	4-17	3-13	2-9	2-6	F	209	26% 9	96%	C	275 1	5% 9	96%	С	355	8%	91%	VC	447	5%	79%	UC	application label for	DR110-04	40286-04
	0.47	60	56	7-28	5-19	4-14	2-9	2-7	F	202	27% 9	96%	M	259 1	7% 9	96%	С	330	9%	93%	VC	421	6%	82%	UC	maximum pressures, speeds and application	UR110-04	40292-04
	0.51	70	66	8-30	5-20	4-15	3-10	2-8	F	196	29% 9	96%	M	245 1	8% 9	97%	С	309	10%	95%	C	400	6%	84%	UC	information.		
	0.41	30	27	6-24	4-16	3-12	2-8	2-6	M	231	21% 9	95%	C	367	7% 9	90%	-	-	-	-	-	-	-	-	-		ER110-05	40281-05
	0.45	35	32	7-26	4-18	3-13	2-9	2-7	M	217	25% 9	95%	С	334 1	0% 9	93%	VC	459	4%	76%	XC	513	3%	66%	UC	UR tips are specialty spray tips to produce ultra coarse	SR110-05	40287-05
١	0.48	40	36	7-28	5-19	4-14	2-9	2-7	F	207	27% 9	95%	С	308 1	2% 9	94%	VC	427	5%	80%	XC	492	3%	70%	UC	spray.	MR110-05	40291-05
05	0.53	50	45	8-32	5-21	4-16	3-11	2-8	F	198	29% 9	95%	С	287 1	4%	95%	С	400	6%	83%	XC	475	3%	73%	UC	Refer to chemical label for maximum pressures,	DR110-05	40286-05
	0.58	60	54	9-35	6-23	4-17	3-12	2-9	F	192	31% 9	95%	M	269 1	5% 9	96%	С	378	7%	85%	XC	460	4%	75%	UC	speeds and application information.	UR110-05	40292-05
	0.63	70	63	9-37	6-25	5-19	3-12	2-9	F	186	32% 9	95%	M	253 1	7% 9	97%	С	359	7%	87%	VC	448	4%	77%	UC	information.		
	0.48	30	26	7-29	5-19	4-14	2-10	2-7	M	268	16% 9	94%	VC	438	5%	81%	-	-	-	-	-	-	-	-	-		ER110-06	40281-06
	0.52	35	30	8-31	5-21	4-16	3-10	2-8	M	260	18% 9	94%	VC	414	6%	84%	XC	506	3%	68%	XC	563	2%	58%	UC	UR tips are specialty spray tips to produce ultra coarse	SR110-06	40287-06
000	0.56	40	35	8-33	6-22	4-17	3-11	2-8	M	242	21% 9	95%	C	358	9% 9	90%	XC	465	4%	76%	XC	519	3%	65%	UC	spray.	MR110-06	40291-06
06	0.63	50	43	9-37	6-25	5-19	3-12	2-9	M	233	23% 9	95%	C	330 1	11% 9	92%	VC	443	5%	79%	XC	496	3%	69%	UC	Refer to chemical label for maximum pressures,	DR110-06	40286-06
	0.69	60	52	10-41	7-27	5-20	3-14	3-10	M	225	24% 9	95%	C	306 1	2% 9	93%	VC	426	5%	81%	XC	476	3%	71%	UC	speeds and application information.	UR110-06	40292-06
	0.74	70	61	11-44	7-29	5-22	4-15	3-11	M	218	25% 9	95%	C	285 1	3% 9	94%	VC	410	5%	83%	XC	460	3%	73%	UC	information.		
	0.67	35	28	10-40	7-26	5-20	3-13	2-10	C	298	17% 9	93%	XC	465	5% (64%	-	-	-	-	-	-	-	-	-	UR tips are specialty spray	ER110-08	40281-08
	0.71	40	32	11-42	7-28	5-21	4-14	3-11	С	286	18% 9	93%	XC	445	6%	68%	UC	522	4%	54%	UC	606	3%	42%	UC	tips to produce ultra coarse spray.	SR110-08	40287-08
08	0.79	50	39	12-47	8-31	6-24	4-16	3-12	M	266	20% 9	95%	XC	410	7%	74%	UC	486	5%	61%	UC	571	4%	47%	UC	Refer to chemical label	MR110-08	40291-08
	0.87	60	47	13-52	9-34	6-26	4-17	3-13	M	249	21% 9	95%	XC	382	8%	78%	XC	455	6%	65%	UC	543	4%	50%	UC	for maximum pressures, speeds and application	DR110-08	40286-08
	0.94	70	55	14-56	9-37	7-28	5-19	3-14	M	235	23% 9	96%	VC	359	9% 8	80%	XC	430	6%	69%	UC	519	4%	53%	UC	information.	UR110-08	40292-08
	0.84	40	28	12-50	8-33	6-25	4-17	3-12	C	330	13% 9	90%	UC	480	6%	60%	UC	533	4%	51%	-	-	-	-	-	UR tips are specialty spray		40281-10
	0.94	50	35	14-56	9-37	7-28	5-19	3-14	C	310	16% 9	91%	XC	444	7%	67%	UC	497	5%	57%	UC	651	3%	35%	UC	tips to produce ultra coarse spray.		40287-10
10	1.03	60	42	15-61	10-41	8-31	5-20	4-15	C	293	17% 9	92%	XC	414	8%	72%	XC	468	5%	61%	UC	628	3%	38%	UC	Refer to chemical label		40291-10
	1.11	70	49	17-66	11-44	8-33	6-22	4-17	C	278	19% 9	93%	XC	389	8%	75%	XC	444	6%	64%	UC	608	4%	40%	UC	for maximum pressures, speeds and application		40286-10
	1.19	80	56	18-71	12-47	9-35	6-24	4-18	M	266	20% 9	93%	VC	368	9%	78%	XC	423	6%	66%	UC	591	4%	42%	UC	information.		40292-10
	1.09	50	30	16-65	11-43	8-32	5-22	4-16	XC	383	10% 7	7%	XC	469	5% (62%	-	-	-	-	-	-	-	-			ER110-125	40281-125
	1.19	60	36	18-71	12-47	9-35	6-24	4-18	VC	366	11% 7	9%	XC	439	6%	67%	UC	587	4%	44%	UC	626	4%	37%		JR series is not	SR110-125	40287-125
12.	1.29	70	42	19-76	13-51	10-38	6-25	5-19	C	351	12% 8	31%	XC	413	6%	71%	UC	562	5%	48%	UC	609	4%	40%		mercially available in the	MR110-125	40291-125
	1.38	80	48	20-82	14-54	10-41	7-27	5-20	С	339	12% 8	33%	XC	391	7%	74%	UC	540	5%	51%	UC	595	4%	41%			DR110-125	40286-125
	1.46	90	55	22-87	14-58	11-43	7-29	5-22	C	328	13% 8	34%	VC	371	7%	76%	UC	521	5%	53%	UC	582	5%	43%				
	1.20	50	26	18-72	12-48	9-36	6-24	4-18	XC	413	10% 6	69%	UC	561	4%	46%	-	-	-	-	-	-	-	-				40281-15
	1.32	60	31	20-78	13-52	10-39	7-26	5-20	XC	395	11% 7	72%	UC	534	5% ;	52%	UC	604	4%	41%	UC	655	3%	40%		JR series is not		40287-15
15	1.43	70	36	21-85	14-56	11-42	7-28	5-21	XC	380	11% 7	4%	UC	511	5% ;	56%	UC	586	4%	44%	UC	637	4%	43%		mercially available in the		40291-15
	1.52	80	41	23-91	15-60	11-45	8-30	6-23	VC	367	12% 7	76%	UC	491	6% ;	59%	UC	570	5%	46%	UC	620	4%	46%		JR110-15 size.		40286-15

1.62 90 46 24-96 16-64 12-48 8-32 6-24 **C 355** 13% 78% **XC 473** 6% 62% **UC 557** 5% 48% **UC 606** 4% 48%

A First-timer's look at Tip Wizard



Beginner's Guide to using Tip Wizard

- Choose application units, spray system type, and search function (e.g. Search for tips)
- Enter application rate, spraying speed¹, nozzle spacing, and spray tip angle². 'Since PWM systems can modulate flow by changing the spray duration, enter the MAX typical spraying speed. Spray tip angle required is based on nozzle spacing and boom height. Always maintain 100% overlap.
- 3 Enter target spray quality or target droplet size (microns). <This is where Tip Wizard gets more useful> Each chemical used in agricultural spraying has different spray quality requirements for best efficacy and also to maintain tolerable levels of driftable fines for spraying in ideal conditions. Using the droplet size (VMD) allows a more advanced way to filter through series of tips.

Where to find target spray quality or droplet size? Depending on the chemical, as well as the different methods and modes of applications, some chemical labels may have less/more information. In general, chemical labels will have a description of how it should be applied, in the form of an ASABÉ spray classification recommendation, or a minimum spray classification (e.g. Spray at least ASABE Coarse)

Application Information: Reference max pressure for Minimum water requirement on chemical label by law conventional nozzles like ER series. Water Volume: Minimum 22 L per acre Try avoid non-drift reduction tips. Nozzles and Pressure: 30 to 40 psi (210 to 275 kPa) when using conventional flat fan nozzles. Low drift nozzles may require higher pressures for proper performance. Use a combination of nozzles and pressure designed to deliver thorough, even coverage of ASABE coarse spray. Droplet spectrum recommendation for balance of drift & coverage. Categories as per ASABE S572.1 Classification

Medium Coarse Very Coarse Extremely Coarse

For the example chemical label application information, we'd have a classification of COARSE droplet size to follow. Considering the mode of application as well as the action (e.g. systemic herbicide vs. contact herbicide), you can choose the spray quality that would suit your conditions as best as possible. REMEMBER: the larger the droplet size/VMD, the coarser the spray, resulting in less coverage. For advanced users, using a VMD droplet size can further filter into a spray quality to make it easier to compare one series to another. For an example, we might find we typically have windier conditions, so try filter our results to stay around 375u-400u for our targeted droplet size.

Select the Best Spray Tip for your needs.

■ Extremely Fine ■ Very Fine ■ Fine

Based on the operating speed, pressure, spray quality, and while also gauging the last few columns (VMD, % drift, % of small droplets for coverage), make a selection.

A Quick-start guide to picking spray tips

1 STEP 1: Size Your Tip Since the application rate is intended to be the most consistent across the application, selecting a tip sized to properly apply a required rate over the actual sprayer speed range is critical. It is recommended to use Tip Wizard, as it will adjust the chart specifically for any application rate, not just common pairs of rate & speed.

FOCUS ON: SPEED & PRESSURE for a required APPLICATION RATE

Since it is the speed and pressure that will dictate a spray tips ability to match a rate, we must ensure our typical travel speed is met within a reasonable pressure range for our application. Anticipate meeting your minimum speed (e.g. turning) within the operational pressure range. Having pressure too low in slow spots can lead to spotty coverage.

Once you have referenced your chart to find your applied rate to your speed, you will find a certain nozzle size will be most effective.

*FOR PWM SPRAYERS (DUTY CYCLE): Since you have more control of your pressure, your sprayer will typically allow for a wider selection of tip size. Try to pick a size that allows a duty cycle of 60-80% at your typical sprayer speed, allowing sufficient speed up/down.

2 STEP 2: Quality Your Spray Quality Since each chemical will require a certain spray quality to be met (for labels that do not, consult chemical representative or agronomist, or general guide based on mode of application), since you have selected your tip size (e.g. 110-04) you can now qualify the series available within that size. The ER/SR/MR/DR/UR series differ based on spray quality & drift reduction.

FOCUS ON: 'ASABE \$572' SPRAY CLASSIFICATION

Since the pressure is dictating the spray quality, you'll want to filter out any tip series that cannot apply the recommended spray quality.

- *FOR PWM SPRAYERS (Pressure Selection): Since you ultimately have more control of your pressure, your spray quality can be changed as needed (within capabilities of the tip). This means instead of maintaining the required quality through a fixed operating pressure range, you can maintain a more flexible pressure range (provided duty cycle is OK).
- 3 STEP 3: Double Check Once you have selected your best spray tip for your application, it is worthwhile to review some of the extra information provided for the spray tip, and re-evaluate if necessary. While the extra information in extrapolated from lab conditions, with no active ingredients, it cannot be considered actual, but it does lend to paint a picture of differences between series.

[ADVANCED] FOCUS ON: Spray % <141 µ, Spray % <600 µ, VMD (µ)

The extra columns reinforce the different spray qualities between different series, but also give the ability to make a rough spray plan for managing real life spraying conditions.

Spray % <141µ: % of total spray that can be considered driftable fines. In ideal conditions, it would be reasonable to assume this spray is NOT going where you want it to go. Due to evaporation before absorption, off-target spray or inversion, very small droplets will not likely hit target, Ideally have a spray tip that minimizes driftable fines. BUT ensure you maintain an acceptable level of coverage. As speed, wind conditions & boom height increase, observed spray drift will increase substantially.

Spray % <600µ: % of total spray that can be considered small droplets. As % of these useful droplets lowers, coverage is reduced. Consider it the 'other half' of the spray application, focusing on small droplets for coverage. Whereas you should maintain a low %<141µ, try to keep a %<600µ as high as possible, to maintain better coverage. As a very rough guideline with some usually chemical applications, aim for ~80+% <600µ for systemic applications; or ~90+% <600µ for contact applications; provided drift reduction levels are met and are

VMD (µ): The volumetric median diameter is the middle-point of spray distribution, and can be used to estimate between different series of the same size spray tips (tested on the same laboratory equipment). It is not for comparing between brands of tips. If you are familiar with using a VMD in tip searches, you can use it as an intensive filter to further focus in on tips that might work for your application. For example, if you are happy with spray application with the MR110-04 at 50PSI (346µ VMD), the spray quality might be comparable to an SR110-06 at 50 PSI (337µ VMD). Bear in mind, VMD is used for educational purposes only, and should not dictate application.

Quick-Start Example: 10 US GPA @ 14 MPH on 20" SYSTEMIC HERBICIDE (glyphosate)

STEP 1: SIZE THE TIP

For the best ontion for a tip size, it'd likely be the 110-04 size.

It would apply 10 US GPA, 14MPH at ~55 PSI, allowing reasonable room to keep pressure up into turns.

STEP 2: QUALIFY THE SPRAY

Since the chemical label for glyphosate requires a 'even coverage of ASABE COARSE droplets', we will filter out any series in the 110-04 size that do not qualify within our operational pressure range. This filters out the ER and the SR series. leaving us with the MR and DR series.

Note: DR series is coarser than required, bu might be suitable for applicators who have to apply into more drift-sensitive areas.

For the purpose of the example, we will single out the MR110-04 as our best tip.

STEP 3: DOUBLE CHECK MR110-04 Ideal Condition Spraying @ 14MPH: @55PSI: COARSE Spray Class **@55PSI % < 141µ: ∼9%** ✓ OK @55PSI % < 600µ: ~93% ✓ Excellent

Drift Sensitive Spraying @ 10MPH: @30PSI: VERY COARSE Spray Class Excellent @30PSI % < 141μ: ~5% @30PSI % < 600μ: ~84% Good

For PWM Sprayers: You can actively select pressure at any* speed, allowing more flexibility on drift reduction & coverage.

*within the canabilities of the system

For more in-depth Guides, Videos or Reading on how to pick your best spray tip, visit www.wilger.net

COMBO-JET® & Radialock Caps, Accessories & Adapters

CANADA 1 (833) 242-4 USA 1 (877) 968-769 Combo-Jet® & Square-Lug Outlet Adapters For viton 0-ring options, contact Wilger. Adapters are available to convert a square-lug nozzle outlet (e.g. Teejet, 40204-00 40203-00 40202-00 40205-00 40206-00 $\label{prop:lem:hypro} \textbf{Hypro, Arag, etc.) to Combo-Jet} \textbf{@ Outlets, or vice versa.}$ SQ LUG 40204-00 Sq Luq (Teejet/Hypro/etc) to Combo-Jet Adapter, Lock-ring style . \$2.60 -TWISTLOCK--TURN--sleeve--TWISTLOCK-40202-00 Hardi to Combo-Jet Adapter, Snap-on style . \$2.60 Comfig fin 2021 TET Agrifac to Combo-Jet Adapter, Sleeve insert 40203-00 Combo-Jet to Square Lug Adapter \$2.60 40206-00 Square Lug to Double-Down CJ, Lock-ring style \$5.72 install snaps into any Combo-Jet cap Converts a square lug outlet to Self-aligning to convert to Agrifac outlet

TWISTLOCK adapte Radialock Caps & Flanged Spray Tips (for use on Combo-Jet® outlets)

(Different color caps available as non-stocked item. Black is standard. Order item number XXXXX-01 for Red; -02 for White; -03 for Green; -04 for Yellow)

Radialock	Slotted Caps (caps require 40160-00 seal)
40269-05	Radialock Cap, Universal 3/8" Tip Slot\$1.00
40271-06	Radialock Cap, 1/2" Round Tip Slot\$1.12
40275-05	Radialock Cap, Hardi Tip Slot\$1.12
40276-05	Radialock Cap, 7/16" Wide Tip Slot\$1.12
40279-05	Radialock Cap, High-Flow Slot\$1.12
40160-00	Cap Gasket Seal, EPDM Rubber, Universal\$0.65









ER Series Flanged Spray Tips - Refer to Page 3/4 for Spray Tip Application Information

Tip Size	-005	-0067	-01	-015	-02	-025	-03	-04	-05	-06	-08
80° ER Tip	ER80-005	ER80-007	ER80-01	ER80-015	ER80-02	ER80-025	ER80-03	ER80-04	ER80-05	ER80-06	ER80-08
PART#	40170-005	40170-007	40170-01	40170-015	40170-02	40170-025	40170-03	40170-04	40170-05	40170-06	40170-08
110° ER Tip			ER110-01	ER110-015	ER110-02	ER110-025	ER110-03	ER110-04	ER110-05	ER110-06	ER110-08
Part #			40169-01	40169-015	40169-02	40169-025	40169-03	40169-04	40169-05	40169-06	40169-08
MSRP	\$15.25	\$15.24	\$11.84	\$11.84	\$11.84	\$11.84	\$11.84	\$11.84	\$11.84	\$11.84	\$11.84



40170-04



Nozzle Gasket for Flanged Tips Flanged Tips & Radialock

40169-04 40160-00

Combo-Jet® Caps, Metering Orifices & Accessories (Different color caps available as non-stocked items. Check factory for stock. Black is standard. Order item number XXXXX-01 for Red; -02 for White; -03 for Green; -04 for Yellow, -06 for Blue)

COMRO-1	EI® Meter	ing Uritice	es - Refer	to Page 3/	4 for Flow	Rate Info	rmation:	or use as	fixed meter	ing orifices	, or replace	ement mete	ering orifice	for spray t	ips				
Orifice Size	-005	-0067	-01	-015	-02	-025	-03	-04	-05	-06	-08	-10	-125	-15	-20	-25	-30	-40	-50
Part #	40285-005	40285-007	40285-01	40285-015	40285-02	40285-025	40285-03	40285-04	40285-05	40285-06	40285-08	40285-10	40285-125	40285-15	40285-20	40285-25	40285-30	40285-40	40285-50
MSRP	\$8.01	\$8.01	\$6.03	\$6.03	\$6.03	\$6.03	\$6.03	\$6.03	\$6.03	\$6.03	\$6.03	\$6.03	\$6.03	\$6.03	\$6.03	\$6.03	\$6.03	\$6.03	\$6.03
Strainer #	100 Me	esh Strainer	[Green] #40	251-00		50 M	esh Strainer	[Blue] #4025	50-00					Strai	ner not requ	iired.			
MSRP		\$1	.90				\$1.	.90							-				

Combo-Je	t Spray Tip Strainers & O-Rings
40250-00	Strainer, Combo-Jet Snap-in, 50 Mesh, Blue, SS\$1.90
40251-00	Strainer, Combo-Jet Snap-in, 100 Mesh, Green, SS\$1.90
40247-00	Strainer, Combo-Jet Snap-in, 16 Mesh Slotted, Grey, Plastic \$1.88
40248-00	Strainer, Combo-Jet Snap-in, 25 Mesh Slotted, Yellow, Plastic \$1.88
40249-00	Strainer, Combo-Jet Snap-in, 50 Mesh Slotted, Red, Plastic \$1.88
40260-00	O-ring, Combo-Jet Spray Tip, 13mm x 3mm, FKM\$0.27
40260-V0	O-ring, Combo-Jet Spray Tip, 13mm x 3mm, VITON®\$2.18
40261-00	Adapter, CJ Snap-in Strainer & Seal Adapter\$0.42
COMBO-JI	ET® UR Series* Dual-Chamber Pre-orifices [Repl. only]
UR pre-orifices n	nust be replaced with a new pair only. Correct orifices must be used for proper performance.





	s & Adapte t metering & pr	
Seal adapter not required if metering orifice is used	O-ring(s) for Caps & Sp	Combo-Jet® oray Tips
40261-00	40260-00 FKM	40260-V0 viton

	Orifice Set	-025	-03	-04	-05	-06	-08	-10
	Part #	40292-22	40292-23	40292-24	40292-25	40292-26	40292-28	40292
	MSRP	\$11.63	\$11.63	\$11.63	\$11.63	\$11.63	\$11.63	\$11.6
-	U.S. Patent No. 1	0.603.681						
	0.0.1 410111 1101	Plug Can		F	Plug Can			



40441-00

Double-Down Adapter

straight down

Confide m20231

	Plug Cap	
Size	FKM O-ring Assy	Cap Only
Dlug Con	40272-B5	40272-05
Plug Cap	\$1.49	\$1.12

Streamer Cap



40432-086

Fertilizer Streamer Caps

2-Hole

40433-104 Outlet Spacing

	vertical growing targets, double	-down is better into thick canopies
	Pwm Ready Double Nozzle Spraying Just add the two tip sizes together for your PWM nozzle flow* For example: -04 + -04 = -08	
The same of	*PWM Pressure drop based on the combined size.	
	40440-00 Y-Adapter tilts	

Hose Size

1/8

1/4"

3/8"

1/2

To split up a high volume, coarse spray nozzle into two more meaningful spray quality tips. Y-adapter is excellent for

	o forward ckwards	100			
Splitter Caps					
Size	FKM O-ring Assy	Cap Only			
Y-Adapter	40440-00	40440-01			
(60° Fwd/Bkwd)	\$5.22	\$4.98			
Davible Davis	40441-00	40441-01			
Double-Down	\$5.22	\$4.98			

Hose Barb Caps

FKM O-ring Assy

40420-B5

40422-B5

\$2.38

40424-B5

\$2.38

40426-B5

40420-05

40422-05

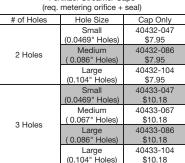
\$1 41

40424-05

\$1.41

40426-05







NPT-F	45° NPT-
40273-05	40274-0
Threaded Outlet Caps	
Thread Size FKM O-ring Assy	Can Only

Th	readed Outlet Ca	os
Thread Size	FKM O-ring Assy	Cap Only
1/8" NPT-F	40277-B5 \$2.38	40277-05 \$1.41
1/4" NPT-F	40273-B5 \$2.38	40273-05 \$1.41
45° 1/4" NPT-F	40274-B5 \$4.26	40274-05 \$3.29



*For selecting metering orifices to fit your application, use Tip Wizard, consult flow charts, or use other tools available at www.wilger.net.

PRODUCT UPGRADE: FKM 0-rings

Wilger parts are now being manufactured with fluoroelastomer (FKM) o-rings & seals.
FKM o-rings provides superior chemical resistance and durability over Buna-N (previous standard).
Viton branded o-rings are available for a premium o-ring option.





40424-05

Quick-Connect Push-In Tube Caps				
Size (Tube O.D.)	FKM O-ring Assy	Cap Only		
1/4"	40435-B5 \$5.23	40435-05 \$4.27		
5/16"	40437-B5 \$5.37	40437-05 \$4.41		
3/8"	40436-B5 \$5.37	40436-05 \$4.41		

COMBO-JET® Nozzle Bodies & Accessories

For Nozzle Body Brochure, visit www.wilger.net

Wet Boom Nozzle Bodies [Nozzle bodies mounted on a solid tube or pipe are considered 'wet boom']

Combo-Jet® Nozzle Bodies

For premium viton O-ring options, contact Wilger.

Single Outlet Combo-Jet Bodies

Boom Pipe	Outlets	Style	Part#	MSRP
3/4"	1 CJ	Check Valve	40611-00	\$5.85
	1" 1 CJ	Check Valve	40621-00	\$5.85
4.1		Manual On/Off	40621-MS	\$7.27
'		KWIKSTOP	40631-00	\$7.88
		No Module	40621-NM	\$5.35





Stop Nozzle Run-on



KWIKSTOP™ nozzle bodies aspirate trapped air in the boom. Less air = Less Drips & Run-on

Contact Wilger for part numbers.

Swivel Bodies can swap from left/right boom orientation as needed

Debris-cleaning inlet slots for less residue build-up

Swivel Bodies available in Combo-Jet and Square Lug (Teejet/Hypro/etc.) outlets

'-NM' Assemblies are cost effective replacement body for retrofitting PWM systems onto a sprayer

Available with 4PSI (repl. '-00' with '-P4'), 10PSI (standard) & 15PSI (repl. '-00' with '-P15') check valve options.

Dual Outlet Swivel Combo-Jet Bodies

Triple Outlet Swivel Combo-Jet Bodies

Boom Pipe	Outlets	Style	Part#	MSRP
3/4"	2 CJ	Check Valve	40612-00	\$15.08
	1" 2 CJ	Check Valve	40622-00	\$15.08
4.1		Manual On/Off	40622-MS	\$16.50
'		KWIKSTOP	40632-00	\$17.10
		No Module	40622-NM	\$14.58





Boom Pipe	Outlets	Style	Part#	MSRP
3/4"	3 CJ	Check Valve	40613-00	\$18.55
1"	3 CJ	Check Valve	40623-00	\$18.55
		Manual On/Off	40623-MS	\$19.97
		KWIKSTOP	40633-00	\$20.58
		No Module	40623-NM	\$18.05





For premium viton O-ring options, contact Wilger.

Swivel Body Replacement Parts & Kits

	· •
40166-04	O-ring Repair Kit, CJ Nozzle Bodies, FKM (6 Bodies)\$16.18
40166-05	O-ring Repair Kit, CJ Nozzle Bodies, VITON® (6 Bodies) \$45.50
40193-02	SCREW, Hi-Lo, #10 x 3/4" SS [for Hinged Swivel Bodies]\$0.25
40155-23	Molded Diaphragm, FKM (replaces 40155-07 + 20455-04) \$1.26
20455-04	O-ring, Pressure Pad, Replacement (pairs with 40155-07) \$0.26
40155-07	Diaphragm Rubber Seal, EPDM (use w/ #20455-04) \$0.99
40155-12	Diaphragm Rubber Seal, VITON® (use w/ #20455-04) \$3.50



CJ Nozzle Body Repair Kits* (up to 6 bodies)
BUNA-N Kit incl.
6x Pressure Pad 0-rings #20455-04 #20455-V4

24x Inner-body O-rings #40155-09 #40155 6x Diaphragms #40155-07 #40155 *Kits will include either a pair of #20455-04 & #40155-07, #40155-13 #40155-12

or #40155-23. Both serve the same function

Square Lug Outlet Swivel Bodies

Single Outlet Square Lug Bodies

Boom Pipe	Outlets	Style	Part#	MSRP
3/4"	1 Ca Lua	Check Valve	40651-00	\$5.85
3/4	1 Sq. Lug	No Check	40140-00	\$4.33
		Check Valve	40661-00	\$5.85
		Manual On/Off	40661-MS	\$7.27
1"	1 Sq. Lug	KWIKSTOP	40671-00	\$7.88
		No Module	40661-NM	\$5.35
		No Check	40141-00	\$4.33







20455-04 40155-07 Also requires 20455-0 pressure pad o-ring

A molded, single-piece diaphragm is replacing the two-piece diaphragm rubber + pressure pad o-ring. For replacing old-style parts, ENSURE pressure pad o-ring is removed from check valve



Dual Outlet Swivel Square Lug Bodies

Boom Pipe	Outlets	Style	Part#	MSRP
3/4"	2 Sq. Lug	Check Valve	40652-00	\$15.08
		Check Valve	40662-00	\$15.08
1"		Manual On/Off	40662-MS	\$16.50
'	2 Sq. Lug	KWIKSTOP	40672-00	\$17.10
		No Module	40662-NM	\$14.58





module, and the new diaphragm groove fits where the pressure-pad o-ring was. This change is also made for manual on/off check valves. Ensure the diaphragm is seated like the [bottom view] example below, with a smooth sealing surface.





Triple Outlet Swivel Square Lug Bodies

	1				
Boom Pipe	Outlets	Style	Part#	MSRP	
3/4"	3 Sq. Lug	Check Valve	40653-00	\$18.55	
	2 50 100	Check Valve	40663-00	\$18.55	
1"		Manual On/Off	40663-MS	\$19.97	
'	3 Sq. Lug	KWIKSTOP	40673-00	\$20.58	
1		No Module	40663-NM	\$18.05	



Using bodies with smooth clamps?



Swivel bodies have been switched to a standard bolt-mount hinge clamp. Contact Wilger for a cross-reference chart for the smooth clamp part numbers and their bolt-mount replacement.

Square Lug Caps, Plugs & Strainers

40150-00	Strainer, Flanged Tip, 50 Mesh, Blue, SS	. \$1.14
40151-00	Strainer, Flanged Tip, 100 Mesh, Green, SS	. \$1.14
40159-05	Sq Lug Cap, 3/8" Tip Slot, Black	. \$0.84
40160-00	Gasket, Sq Lug Cap, Universal, EPDM	. \$0.65
40160-V0	Gasket, Sq Lug Cap, Universal, VITON®	. \$2.93
40198-SM	Gasket, Sq Lug Cap, smaller ID, EPDM	. \$0.57
40164-00	Sq Lug Cap, 1/4" NPT-F, 45°, Black	. \$3.27
40180-05	Sq Luq Cap, Blank Plug, Black	. \$2.15









Contact Wilger for alternate color cap availability.

Flanged Cap Gasket

40150-00

40160-00 40164-00 40150-00 40150-00 401600 50 2020-21 Canadian Pricelist (CDN\$) - Effective October 1, 2020 Revised September 1, 2020

8

\$24.35

Compact Nozzle Bodies & Hose Drop Fittings

Model 10 PSI Check		4 PSI Check	No Module		
1/8" NPT-F	40500-00	40500-P4	40500-01		
1/0 INF 1-1	\$8.39	\$8.38	\$3.98		
1/4" NPT-F	40501-00	40501-P4	40501-01		
1/4 NP1-F	\$8.39	\$8.39	\$3.98		
1/4" Push-In	40502-00	40502-P4	40502-NM		
1/4 Push-in	\$11.35	\$11.35	\$6.94		













Hose drops connect to standard Combo-Jet & Combo-Rate nozzle bodies, or 1/4" NPT Thread. Available in sizes ranging from 16"-48".



Compact Bodies used as In-line Check Valves

The compact nozzle bodies can be used as an in-line check valve for liquid fertilizer kits or on other application equipment that requires a compact, remote check valve.

48" Hose Drop, R/L Cap x 1/4" NPT-M, Nylon

22048-00

ı	OUITIDO I	nate mozzie body components & o cmp Acco	033011
	40155-07	Diaphragm Rubber Seal, Fairprene	
	40155-12	Diaphragm Rubber Seal, VITON®	\$3.50
	20455-04	O-ring, Pressure Pad, #108, FKM (Use with 40155-07/-12)	\$0.26
	40155-23	Diaphragm, Molded, FKM (Replaces 40155-07 + 20455-04)	\$1.26
	41100-02	Nut, CR Body Nut	
	41100-03	Diaphragm Check Valve Module Assy (use w/ #41100-02 nut) .	\$3.06
	41110-01	Manual ON/OFF Check Valve Module Assy, CR (10PSI)	\$4.57
	41125-01	Air-Off Operated Check Valve Assy, CR	. \$12.11
	20455-00	Air Tee , 3/8" x 3/8" x 1/4"	\$9.42
	20456-00	Reducer, 3/8" x 1/4" O.D. Tube	\$4.20
	20457-00	Air Tee , 5/16" x 5/16" x 1/4"	\$9.51
	41250-00	CR Adapter, 90° Elbow Assy, U-clip(F) to U-clip(M)	\$6.79
	41251-00	CR Adapter, U-clip(F) x 1/4" NPT-F	\$4.71
	41252-00	CR Adapter, U-clip(F) x 1/4" NPT-M	\$2.71
	41253-00	CR Adapter, U-clip(F) x 3/8" NPT-M	\$2.71
	41255-00	CR Adapter, U-clip(F) x 1/4" NPT-F, w/ 3/4" SQ MT Adapter	\$3.95
	41256-00	CR Adapter, U-clip(F) x 3/8" NPT-F, w/ 3/4" SQ MT Adapter	\$3.95
	41275-00	CR Adapter, U-clip(M) x 1/4" NPT-F	\$2.26
	41276-00	CR Adapter, U-clip(M) x 3/8" NPT-F	\$2.26
	41285-00	CR Adapter, U-clip(M) x Plug	\$1.78
	41133-01	CR Nut, PWM solenoid (not included), Replacement	\$1.64
	41150-00	Strainer, CR Inter-body, 50 Mesh (Blue)	\$2.52
	41152-00	Strainer, CR Inter-body, 80 Mesh (Grey)	\$2.52
	41151-00	Strainer, CR Inter-body, 100 Mesh (Green)	\$2.52





HOW TO ORDER: 4PSI/10PSI/15PSI Diaphragm Check Valves 41100-03 41100-11 **Diaphragm Check Valves**

PSI Shut-off Part # 10 PSI (Standard) 41100-03 BLACK 4 PSI (Low) 41100-11 RED

PSI Shut-off Part # Colo 10 PSI (Standard) 41110-01 BLACK 15 PSI (High) 41110-08

To order 4 PSI or 15 PSI nozzle bodies, replace '-00' with '-P4' (4 PSI) or '-P15' (15 PSI) i.e. #40622-P15: C/J dual body w/ 15 PSI diaphragm check valve

PRODUCT UPDATE: Rubbei Diaphragm Change





Retro-fittable 40155-23

Combo-Rate® & O-Ring Seal Control Manifolds, Regulating Components & Accessories

Combo-R	late manifolds can be used for a broad range of app	lication
Compatib	le Radialock caps shown on Page 6.	
41130-00	CR Thru Body, Pressure Regulating Valve Assy\$	320.34
41131-00	CR End Body, Pressure Regulating Valve Assy\$	319.03
41110-00	CR Thru Body, Manual ON/OFF Check Valve\$	311.41
41111-00	CR End Body, Manual ON/OFF Check Valve\$	10.59
41252-00	CR Adapter, U-clip(F) x 1/4" NPT-M	\$2.71
41253-00	CR Adapter, U-clip(F) x 3/8" NPT-M	\$2.71
41255-00	CR Adapter, U-clip(F) x 1/4" NPT-F, w/ 3/4" SQ MT Adapter	\$3.95
41256-00	CR Adapter, U-clip(F) x 3/8" NPT-F, w/ 3/4" SQ MT Adapter	\$3.95
41275-00	CR Adapter, U-clip(M) x 1/4" NPT-F	\$2.26
41276-00	CR Adapter, U-clip(M) x 3/8" NPT-F	\$2.26
41251-00	CR Adapter, U-clip(F) x 1/4" NPT-F	\$4.71
Combo-R	ate® Manifold pricing: (not incl. pres. gauge & caps)	
41115-02	2 Outlet CR Manifold, w/ Inlet, PRV \$	47.59
44445 00		

41115-03 3 Outlet CR Manifold, w/ Inlet, PRV . \$58.99 Example ORS Manifold pricing: (pressure gauge not incl.) 2 Outlet ORS Manifold, w/ PRV (not incl. pressure gauge, outlets, inlet) ... 3 Outlet ORS Manifold, w/ PRV (not incl. pressure gauge, outlets, inlet)





BFI OW: CR Control Manifold BOTTOM-I FFT: ORS Control Manifold Combo-Rate® Control Manifold

RIGHT: Estate Sprayer Manifold

#41115-02 (w/o barbs & gauge) Example Sprayer Manifold Plumbing manifolds are compact & convenient for controlling estate

For premium viton O-ring options, contact Wilger.

sprayers, or other equipment.

Combo-Jet® Turret Adapters For Radialock & Square Lug Outlets

Turret adapters are only intended for slow movement activities without risk of being struct Combo-Jet® Adapter (Radialock to Combo-Jet® Cap)						
40470-00	Swivel Turret Adapter Cap, Dual Nozzle, Combo-Jet\$11.04					
40471-00	Swivel Turret Adapter Cap, Triple Nozzle, Combo-Jet\$15.17					
Square Lu	ıg Adapter (Radialock to Square Lug Cap)					
40472-00	Swivel Turret Adapter Cap, Dual Nozzle, Square Lug\$11.04					
40473-00	Swivel Turret Adapter Cap, Triple Nozzle, Square Lug\$15.17					



COMBO-JET® Outlets Adants a Combo-, let outlet to 2 or 3 Combo-Jet outlets

40470-00



40471-00



Square Lug Outlets Adapts a Combo-, let outlet to 2 or 3 Square Lug outlets



For viton assembly options, contact Wilger

Combo-Rate® Boomless Sprayer Nozzle Body Assemblies

Boomless sprayers are used to spray areas not accessible by a boom sprayers. For example: ditches, roadways, etc.

Assembly	Flow Rate	Part #	MSRP
O Tim De amalana	1.3 US gpm	70154-01	
3-Tip Boomless Assembly	2.6 US gpm	70154-03	\$139.79
Assembly	5.8 US gpm	70154-06	
	2.3 US gpm	70155-02	
5-Tip Boomless	2.9 US gpm	70155-03	\$223.47
Assembly	5.8 US gpm	70155-06	φ223.41
	11.5 US gpm	70155-12	
	3.9 US gpm	70156-04	
7-Tip Boomless	4.9 US gpm	70156-05	\$308.62
Assembly	9.6 US gpm	70156-10	φ306.02
	19.5 US gpm	70156-20	



Example boomless-style nozzle assembly on a utility service truck.



COMBO-RATE® Nozzle Bodies

For Full COMBO-RATE® Nozzle Body Brochure, visit www.wilger.net

For premium viton O-ring options, contact Wilger.

For premium viton O-ring options, contact Wilger.

• NOTE: All Wilger u-clip (male to female connections) components are compatible with COMBO-RATE® nozzle bodies and stacking components.

Combo-Rate® Side-Fed Inlet Saddles

Boom Size	Inlet Size	Part # MSRP
3/4" Pipe	3/8" Inlet	41203-00 \$6.89
1" Pipe	3/8" Inlet	41200-00 \$6.89
	9/16" Inlet	41201-00 \$6.89
2" Pipe	9/16" Inlet	41206-00 \$8.01









Combo-Rate® II Bottom-Fed or Top-Fed Saddles

One-Way Combo-Rate II Saddles

Boom Size	Inlet Size	Stacking Direction	Part# & MSRP
1/2" Pipe	3/8" Inlet	One-Way	41471-00 \$6.55
1" Pipe	3/8" Inlet	One-Way	41475-00 \$6.55
i Pipe	9/16" Inlet	One-Way	41477-00 \$6.55





COMBO-RATE® II (CRII) Saddle Perks Active Air Purge

If you are upgrading to (or have) a CRII saddle on your sprayer, something you might not know is that you can rotate your boom so your inlet hole is pointing up, and use the CRII saddle as a 'top-fed saddle', passively pulling any air out of a boom across the entire length as fast as possible.



Two-Way Combo-Rate II Saddles

Boom Size	Boom Size Inlet Size Stacking Direction		Part# & MSRP
1/2" Pipe	3/8" Inlet	Two-Way	41472-00 \$8.24
1" Pipe	3/8" Inlet	Two-Way	41476-00 \$8.24
1 Pipe	9/16" Inlet	Two-Way	\$8.24 41476-00





Combo-Rate® II Stacking Nozzle Bodies [CRII Stacking Bodies require a Combo-Rate turret, plug or end/thru body to fully assemble for use]

For premium viton O-ring options, contact Wilger.

CANADA 1 (833) 242-412
USA 1 (877) 968-7695

Nozzle bodies are listed as One-Way or Two-Way nozzle bodies, based on how many open u-clip (or combo-clip) ports are available.

One-Way Combo-Rate II Stacking Nozzle Bodies

				Nozzle Bo	dies with 5/16"	Bolt Mount Upp	per Clamp
ı			Charling		Description, F	art# & MSRP	
	Boom Size	Inlet Size	Stacking Direction	Dia. Check Valve	Manual ON/OFF	Air-Off Operated	PWM (w/o Nut)**
	1/2" Pipe	3/8" Inlet	One-Way	41411-00 \$15.34	41413-00 \$16.98	41415-00 \$20.09	41417-00 \$10.26
	3/4" Pipe	3/8" Inlet	One-Way	41421-00 \$15.34	41423-00 \$16.98	41425-00 \$20.09	41427-00 \$10.26
١	28mm Pipe	3/8" Inlet	One-Way	41481-00 \$15.34	41483-00 \$16.98	41485-00 \$20.09	41487-00 \$10.26
		3/8" Inlet	One-Way	41431-00 \$15.34	41433-00 \$16.98	41435-00 \$20.09	41437-00 \$10.26
	1" Pipe	KWIKSTOP 3/8" Inlet	One-Way	41451-00 \$17.04	41453-00 \$18.87	41455-00 \$22.24	41457-00 \$11.40
		One-Way	41441-00 \$15.34	41443-00 \$16.98	41445-00 \$20.09	41447-00 \$10.26	

**PWM bodies/turrets do not include a body nut or control module

Two-Way Combo-Rate II Stacking Nozzle Bodies

			Nozzle Bo	dies with 5/16"	Bolt Mount Up	per Clamp			
			Otra eleiera	Description, Part# & MSRP			MSRP		
	Boom Size	Inlet Size	Stacking Direction	Dia. Check Valve	Manual ON/OFF	Air-Off Operated	PWM (w/o Nut)**		
l	1/2" Pipe	3/8" Inlet	Two-Way	41412-00 \$17.03	41414-00 \$18.68	41416-00 \$21.79	41418-00 \$11.95		
	3/4" Pipe	3/8" Inlet	Two-Way	41422-00 \$17.03	41424-00 \$18.68	41426-00 \$21.79	41428-00 \$11.95		
١	28mm Pipe	3/8" Inlet	Two-Way	41482-00 \$17.03	41484-00 \$18.68	41486-00 \$21.79	41488-00 \$11.95		
	3/8" Inl	3/8" Inlet	Two-Way	41432-00 \$17.03	41434-00 \$18.68	41436-00 \$21.79	41438-00 \$11.95		
	1" Pipe	KWIKSTOP 3/8" Inlet	Two-Way	41452-00 \$18.92	41454-00 \$20.75	41456-00 \$24.12	41458-00 \$13.28		
	i Pipe	9/16" Inlet	Two-Way	41442-00 \$17.03	41444-00 \$18.68	41446-00 \$21.79	41448-00 \$11.95		
		High Flow 21/32" Inlet	Two-Way	41462-00 \$17.03	41464-00 \$18.68	41466-00 \$21.79	41468-00 \$11.95		

41433-00





41438-00

HOW THEY WORK: Manual ON/OFF Check Valves

Since Combo-Rate nozzle bodies stack, a manual way to turn off flow to certain outlets is required.

When the knob is OPEN, it acts as a standard 10 PSI check valve.

When the knob is CLOSED, it turns off flow to that nozzle outlet ONLY. It does not effect other stacked nozzle bodies.

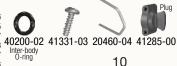






**PWM bodies/turrets do not include a body nut or control module.

Combo-R	Combo-Rate® II Nozzle Body Replacement Components							
40200-02	O-ring, CR Inter-body, #206, FKM	\$0.26						
20460-04	U-clip, 304SS	\$1.85						
41331-03	Screw, CRII Hinge Clamp	\$0.37						
41285-00	Adapter, CR Plug [Covers unused Combo-Rate port]	\$1.78						
20455-07	O-ring, 3/8" Nozzle Body Inlet Stem, #110, FKM	\$0.27						
40200-02	O-ring, 9/16" Nozzle Body Inlet Stem, #206, FKM	\$0.26						
41361-02	O-ring, 21/32" Nozzle Body Inlet Stem, #115, FKM	\$0.25						



PRODUCT UPGRADE: Diaphragms (Page 8 for details)

A molded, single-piece diaphragm is replacing the

two-piece diaphragm rubber + pressure pad o-ring.
For parts replacement, **ENSURE** pressure pad o-ring is removed from module, and molded diaphragm fits where the pressure-pad o-ring was.

COMBO-RATE® STACKING COMPONENTS & ACCESSORIES









Combo-Rate® Stacking Thru/End Nozzle Bodies (use with Combo-Rate® saddle bodies)

		Part # & MSRP				
Model	Dia.Check	Manual	Air-Off	PWM		
	Valve	ON/OFF	Operated	(w/o nut)**		
Thru Body	41100-00	41110-00	41125-00	41135-00		
Assembly	\$9.98	\$11.41	\$14.52	\$4.52		
End Body	41101-00	41111-00	41126-00	41136-00		
Assembly	\$9.10	\$10.59	\$13.70	\$3.38		
Swivel End Body	41102-00	41112-00	41127-00	41137-00		
Assembly	\$12.34	\$13.83	\$0.00	\$8.96		
Combo-Rate® Stacking Turrets (use with Combo-Rate® saddle bodies)						





PWM w/o nut** or PWM Solenoids equivalent control 41136-00

Swivel End Body w/o nut for PWM solenoid (or equiv) 41137-00 Reversible & Adjustable in 15° Increments

or Fence-row

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** PWM bodies/turrets do not include a body nut. Control module or solenoid must be used

For premium viton O-ring options, contact Wilger.

	Number of	Module or	Part # & MSRP				
	Outlets	Check Valve Orientation	Dia. Check Valve	Manual ON/OFF	Air-Off Operated	PWM (w/o nut)*	
		Front	41503-00 \$20.01	41513-00 \$21.44	41543-00 \$24.55	41533-00 \$14.93	
	3 CJ Outlet	Side (Reversible)	41603-00 \$22.46	41613-00 \$23.88	41643-00 \$26.99	41633-00 \$17.37	
		Тор	41803-00 \$23.50	41813-00 \$24.92	41843-00 \$28.03	41833-00 \$18.41	
		Front	41504-00 \$20.01	41514-00 \$21.44	41544-00 \$24.55	41534-00 \$14.93	
	4 CJ Outlet	Side (Reversible)	41604-00 \$22.46	41614-00 \$23.88	41644-00 \$26.99	41634-00 \$17.37	
		Тор	41804-00	41814-00	41844-00	41834-00	

l		vaive	014/011	Operated	(W/O Hut)
	Front	41503-00 \$20.01	41513-00 \$21.44	41543-00 \$24.55	41533-00 \$14.93
3 CJ Outlet	Side (Reversible)	41603-00 \$22.46	41613-00 \$23.88	41643-00 \$26.99	41633-00 \$17.37
	Тор	41803-00 \$23.50	41813-00 \$24.92	41843-00 \$28.03	41833-00 \$18.41
	Front	41504-00 \$20.01	41514-00 \$21.44	41544-00 \$24.55	41534-00 \$14.93
4 CJ Outlet	Side (Reversible)	41604-00 \$22.46	41614-00 \$23.88	41644-00 \$26.99	41634-00 \$17.37
	Тор	41804-00 \$23.50	41814-00 \$24.92	41844-00 \$28.03	41834-00 \$18.41
	Front	41505-00 \$20.01	41515-00 \$21.44	41545-00 \$24.55	41535-00 \$14.93
5 CJ Outlet	Side (Reversible)	41605-00 \$22.46	41615-00 \$23.88	41645-00 \$26.99	41635-00 \$17.37
	Тор	41805-00 \$23.50	41815-00 \$24.92	41845-00 \$28.03	41835-00 \$18.41
	Front	41505-32* \$20.01	41515-32* \$21.44	41545-32* \$24.55	41535-32* \$14.93
3 CJ Outlet + 2 SQ Lug Outlet	Side (Reversible)	41605-32 \$22.46	41615-32 \$23.88	41645-32 \$26.99	41635-32 \$17.37
Outlet	Тор	41805-32 \$23.50	41805-32 \$23.50	41845-32 \$28.03	41835-32 \$18.41
Double-Down + 3 CJ Outlet**	Side (Reversible)	41606-00 \$25.48	41616-00 \$26.90	41646-00 \$30.01	41636-00 \$20.39
Double-Down	Front	41506-00 \$23.03	41516-00 \$24.46	41546-00 \$27.57	41536-00 \$17.95
+ 4 CJ Outlet	Тор	41806-00 \$26.52	41816-00 \$27.94	41846-00 \$31.05	41836-00 \$21.43



^{** 3+}DD side turrets can use 3 Combo-Jet® nozzle outlets & 1 double-down outlet. Unusable single outlet will depend on check valve orientation.

TETT <u>Double D</u>own Turrets Double nozzles from a single turret outlet Great for double-down PWM spraying 41636-00 41836-00 Top Turret







Combo-Rate® Turret & Body Replacement Parts & Repair Kits

41502-11	CR Turret Repair Kit, FKM (2 Bodies)\$16.01
41502-12	CR Turret Repair Kit, VITON® (2 Bodies)\$48.15
41502-04	CR Turret Outlet Arm, Combo-Jet Outlet\$1.00
41502-10	CR Turret Outlet Arm, Square Lug Outlet\$1.00
41502-13	CR Turret Outlet Arm, Double-Down Combo-Jet Outlet\$4.02
41502-05	CR Turret Outlet Arm, Plug\$0.78
40155-23	Diaphragm, Molded, FKM (Replaces #40155-07 + 20455-04) \$1.26
20455-07	O-ring, CR Turret Outlet, #110 Duro 70, FKM\$0.27
40200-02	O-ring, CR Inter-body, #206 Duro 70, FKM
41331-03	Screw, SS, CRII Body Hinge Clamp Screw (for 2016+ newer) \$0.37
41100-15	CRII Nozzle Body O-ring Repair Kit, FKM (6 Bodies)
41100-16	CRII Nozzle Body O-ring Repair Kit, VITON® (6 Bodies)\$48.95







41502-05



40155-07 Diaphragm

COMBO-RATE® II

Body Repair Kits*

20455-04

10x Turret Outlet O-rings #20455-07 COMBO-RATE® 47.502-06
Turret Repair Kits 2x Combo-Jet Outlet Arm #41502-06
(For up to 2 turrets): 2x Combo-Jet Outlet Arm #41502-06 2x Turret Plugs 2x Turret Lock Clips

41331-03 20455-07 40200-02 Turret Arm 0-ring Inter-body 0-ring Buna Kit includes viton Kit incl. #40155-13 #41502-V6 #40155-12 #41502-04 #41502-05 #41502-05

6x Pressure Pad O-rings #20455-04

#41502-09

pressure pad o-ring if #40155-23 is being used.

Body Repair Kits* 6x Inter-body 0-rings #40200-02 #40155-07 #40155-12

*Repair kits may include a pair(s) of #40155-07 and #20455-04, or a single #40155-23. Both serve the same purpose. Ensure to remove the

#41502-09

11

Dry Boom Nozzle Bodies & Clamps [Nozzle bodies fed directly by a hose are considered 'dry boom' nozzle bodies]

40371-00

40372-00

\$8.88

\$8.88

Low Mount Compact Bodies - 11/16" Thread Mount & 5/8" Square-Mount Nozzle Bodies

5/8" Square Mount Body W/ Diaphragm Check Valve (Non-Stocked Item - Contact Factory for Availability)							
Type	3/8" Hose Shank	1/2" Hose Shank	3/4" Hose Shank	MSRP			
One-Way Left	40380-00	40385-00	40390-00	\$8.88			
One-Way Right	40381-00	40386-00	40391-00	\$8.88			
Two-Way	40382-00	40387-00	40392-00	\$8.88			
Three-Way	40383-00	40388-00	N/A	\$8.88			
11/16" Thread Mount Body w/ Diaphragm Check Valve (Non-Stocked Item - Contact Factory for Availability)							
Type	3/8" Hose Shank	1/2" Hose Shank	3/4" Hose Shank	MSRP			
One-Way Left	40360-00	40365-00	40370-00	\$8.88			

40366-00

40367-00

40362-00 Module Retainer, Replacement. . \$1.76

40361-00

For premium viton O-ring options, contact Wilger. 40385-00 40366-00 40367-00 40199-00 40155-21

Combo-Jet® Square-Mount Dry Boom Nozzle Bodies

One-Way Right

Two-Way

Outlet	Single	Dual Swivel	Triple Swivel
Combo-Jet	40352-00	40353-00	40354-00
Square Lug	-	40152-00	40153-00
	\$9.78	\$18.18	\$22.87

Hose Shank Adapters for 3/8" NPT-F Inlet Nozzle Bodies

Model	3/8" Hose Shank	1/2" Hose Shank	3/4" Hose Shank	MSRP
One-Way	40301-00	40306-00	40311-00	\$2.15
Two-Way	40302-00	40307-00	40312-00	\$2.15
Three-Way	N/A	N/A	40313-00	\$2.91

40353-00 40354-00

For premium viton 0-ring options, contact Wilger.

For premium viton 0-ring options, contact Wilger.

40313-00

40312-00

High Mount Dry Boom Nozzle Bodies w/ Hose Shank - 5/8" Square-Mount & Flange Mount Style

5/8" Square Mount Rodies w/ Diaphragm Check Valves (N/S)

oro oquaro mount Bourso II	(, 0)		
Model	3/8" Hose	1/2" Hose	MSRP
One-Way	40450-00	40452-00	\$6.59
Two-Way	40451-00	40453-00	\$6.59
One-Way w/ 1/4" NPT-M	N/A	40454-00	\$6.59

Flange Mount Bodies w/ Diaphragm Check Valves (N/S)

	Model	3/8" Hose	1/2" Hose	MSRP
ı	One-Way	40460-00	40462-00	\$8.52
	Two-Way	40461-00	40463-00	\$8.52
ı	One-Way w/ 1/4" NPT-M	N/A	40464-00	\$8.52

Square Mount Body w/o Diaphragm Check Valve

40406-00	Compact Nozzle	Body, 5/8"	Sq. Mount,	1/2"	One-Way	\$2.34
40407-00	Compact Nozzle	Rody 5/8"	Sa Mount	1/2"	Two-Way	\$2.34

Flange Mount **Square Mount** 40463-00 40464-00 40452-00 40407-00

40311-00

40352-00

Adjustable Swivel Bodies

			Ou	tlet		
Inlet	Without Dia.		Dia. Check		Manual ON/OFF	
	Single	Double	Single	Double	Single	Double
1/4" NPT-M	40225-00	40226-00	40231-00	40232-00	40237-00	40238-00
1/4 INP1-IVI	\$7.61	\$9.09	\$11.94	\$17.74	\$13.84	\$21.58
1/4" NPT-F	40227-00	40228-00	40233-00	40234-00	40239-00	40240-00
1/4" NP1-F	\$8.13	\$9.59	\$12.46	\$18.26	\$14.40	\$22.12
1/4" NPT-M x 1/4"	40229-00	40230-00	40235-00	40236-00	40241-00	40242-00
NPT-F	\$8.53	\$10.00	\$12.86	\$18.66	\$14.80	\$22.50
3/8" Hose Shank	40243-00	-	40244-00	-	40245-00	-
w/ Sq. Mount	\$7.61	-	\$11.94	-	\$13.85	-
40237-03 Diaphragm Shut-off Assembly, Replacement (for swivel & compact bodies only)						



Clamps for Sprayer Booms & 1/4" Bolt Mount Equipment

Boom Clamps for 5/8" Square-Mount Nozzle Bodies (Stainless Steel)

	, , ,							
Γ	Size	5/8" Sq	5/8" Square Mount Clamp (SS)			High Reach 5/8" Sq. Mt Clamp (SS)		
L	Size	Pipe	Sq. Tube	MSRP	Pipe	Sq. Tube	MSRP	
	1/2"	40320-SS	N/A	\$17.08	N	/A	-	
	3/4"	40321-SS	40325-SS	\$17.08	3/4" to 1-1/4" 40341-SS			
	1"	40322-SS	40326-SS	\$17.08			\$27.50	
	1 1/4"	N/A	40327-SS	\$17.08				
	1 1/2"	N/A	40328-SS	\$17.08	1-1/2" to 2" 40342-SS		¢27.50	
	2"	N/A	40330-SS	\$17.08			\$27.50	

40343-SS Dry Boom Clamp, Extra High Reach, 3/4" Tube x 5/8" Square Mount\$35.13 Clamps for 1/4" Bolt-Mount Bodies & Manifolds (Stainlees Steel)

Size		Mount Clamps 5/16" bolts)	Three-Hole Bolt (fits 1/4" to	t-Mount Clamps 5/16" bolts)
	Sq Tube	MSRP	Sq. Tube	MSRP
1"	40550-SS	\$24.38	40553-SS	\$24.38
1 1/4"	40551-SS	\$24.38	40554-SS	\$24.38
1 1/2"	40552-SS	\$24.38	40555-SS	\$24.38

Clamps for 3/4" Square-Mount Adapters to CRII Nozzle Bodies

	<u> </u>		
Size	3/4" Square Mount Nozzle Body Clamp		
1" Sq. Tube	41261-SS	\$17.08	
1 1/4" Sq. Tube	41262-SS	\$17.08	
1 1/2" Sq. Tube	41263-SS	\$17.08	
2" Sa Tube	41264-SS	\$17.08	

Example of 3/4" Square mount clamp and adapter, mating to a Combo-Rate stacking u-clip 41261-SS

Use #41255-00 (1/4" NPT-F) or #41256-00 (3/8" NPT-F) Adapters



Nozzle Body, Manifold, & Nozzle & Utility Mounting 40553-SS

Body Mounting Square Tube

40551-SS

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2020-21 Canadian Pricelist (CDN\$) - Effective October 1, 2020 Revised September 1, 2020

Quick-Flange Fittings & Fluid Supply System

Engineered Flanged Sprayer Fitttings & Tube

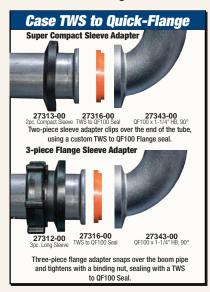
For more on Quick-Flange Fittings, visit www.wilger.net

NEW Product Release: Quick Flange Boom Fittings & Accessories

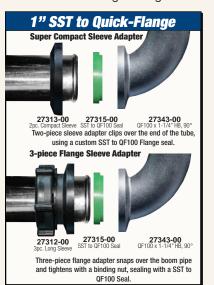
A new product line of engineered sprayer boom fittings to outfit the next generation of sprayers is now here! With emphasis on cutting out contamination, integrating recirculation functions, and generally improving the ability to build a better boom. Wilger is committed to developing and producing high quality liquid application components that are used in setting best practices in an ever-changing environment.

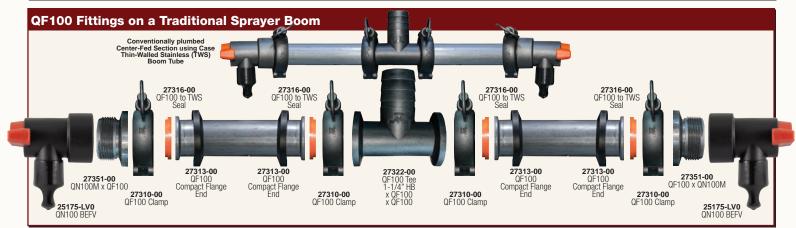
Adapting Quick-Flange Fittings to 1" PIPE, 1" QN SST, or Case TWS Booms

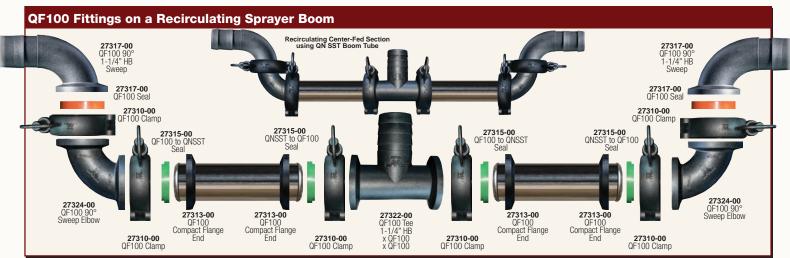
QF100 Fittings can be seamlessly retrofitted or adapted to any 1" Pipe, QN SST, or TWS Booms to a 1" Flange Fitting.











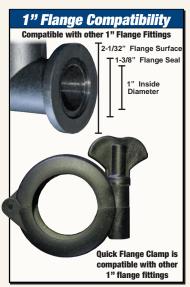
Quick-Flange Fittings & Fluid Supply System

Engineered Flanged Sprayer Fittings & Tube

For more on Quick-Flange Fittings, visit www.wilger.net

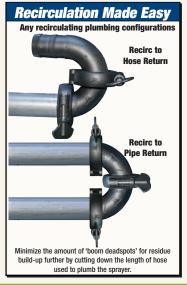
Some Perks of the New Quick-Flange Fittings

QF100 Fittings can be seamlessly retrofitted or adapted to any 1" Pipe, QN SST, or TWS Booms to a 1" Flange Fitting.









Adapt any boom pipe to Quick Flange Fittings

Quick-Flange 100 (QF100) Fittings

QF100 Quic	k Clamps	
27310-00	QF100 Clamp, Butterfly Nut	\$9.40
27311-00	QF100 Clamp, Hex Nut	\$9.85
Boom End T	ube Adapters	
27312-00	Adapter Assy, 3 piece, QNSST/TWS to QF100, Long	. \$10.41
27312-01	Component, Half-Thead, Long	\$2.05
27312-02	Component, Binding Nut, Long	\$2.05
27313-00	Adapter Assy, 2 piece, QNSST/TWS to QF100, Compact	
27313-01	Component, Half-Thead, Compact	\$1.36
QF100 Seals	s & Adapter Seals (For QNSST and TWS)	
27315-00	Seal, QNSST to QF100, VITON®	
27316-00	Seal, TWS to QF100, VITON®	
27317-00	Seal, QF100 to QF100, VITON® (Fits standard 1" Flange)	\$6.77
QF100 Tee 8	& Elbow Fittings	
27321-00	QF100 Tee, QF100 x QF100 x QF100	\$7.70
27323-00	QF100 Tee, QF100 x QF100 x 1" HB	\$6.98
27322-00	QF100 Tee, QF100 x QF100 x 1-1/4" HB	
27324-00	QF100 Elbow, QF100, 90°, Compact	\$7.22
1" Hose Bar	rb Fittings	
27331-00	QF100 Hose Barb, QF100 x 1" HB, Straight	\$3.23
27333-00	QF100 Hose Barb, QF100 x 1" HB, 90° Sweep	\$3.88
1-1/4" Hose	e Barb Fittings	
27341-00	QF100 Hose Barb, QF100 x 1-1/4" HB, Straight	\$3.23
27343-00	QF100 Hose Barb, QF100 x 1-1/4" HB, 90° Sweep	\$3.88
QF100 Adap	oters and Plugs	
27351-00	Adapter, QF100 x QN100-M Thread	\$3.63
27352-00	Adapter, QF100 x TWS-M Thread	\$3.63
27353-00	QF100 Plug, Cap	\$3.27

25175-LV0

41402-LV0



3-piece End Adapter Adapts QNSST or TWS Tube to QF100 Flange



2-piece End Adapter Adapts ONSST or TWS Tube to QF100 Flange



27310-00 Quick Clamp with Butterfly Nut



Quick-Flange Clamp, Boom End Adapters & Seals

27317-00 QF100 Standard Gasket



27316-00 TWS Boom End to QF100 Flange Seal

Quick-Flange Tees & Elbows Easy assembly and dissassembly without tools Sweep elbows reduce flow turbulence



More Flange Fitting Options Coming in 2021

27333-00 1" HB Elbow, 90° Elbow, 90°

27321-00



Quick-Flange Hose Barb Fittings Available in 1" and 1-1/4" hose barb sizes Compact hose barb fittings



Quick-Flange Adapters & Caps Adapt to any series of Quick-Nut or TWS Fittings

More Fittings & Adapters Coming in 2021!

27322-00

Keep your eyes & ears open for new Quick-Flange fittings and adapters that will be coming through 2021. Lots of new and awesome products will continue to be produced into 2022 and beyond.

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QF100 to TWS-M



27351-00 QF100 to QN100 or 1-1/4" NPT-M



27353-00 QF100 Cap

Boom End Flush Valves

Easily add a Flush Valve to any QF100 connection

Full Drain Valve

on Recirc

27352-00

1" QUICK-NUT (QN100) Stainless Steel Fluid Supply

Engineered Sprayer Boom Pipe & Fittlings

QN100 is 1" Quick Nut SST

With additions of the 1" Quick-Flange 100 series (QF100), Wilger is rebranding 1" Quick Nut Boom Fittings to QN100. Nothing has changed but the name.

Lighter Booms weighs 66% of aluminum 23% of sch 40 pipe

Less Pressure Drop with inside diameter >1.25"

Sweep Fittings reduce turbulence & increase flow capacity Lower Cost

For the Full Quick-Nut Brochure, visit www.wilger.net

compared to other pipe plumbed booms

Recirculating Boom compatible boom fittings and tubina

Less Chemical Residue Build-Up compared to hose plumbed boom



Quick-Nut 100 (QN100) SST Fittings - Use with 1" Quick-Nut Stainless Steel Boom Tube (1.315" O.D.)

1" Hose Sh	ank
25166-01	QN100 Hose Barb, QN100 x 1" Hose, Straight
25167-01	
25168-00	QN100 TEE, 1" Hose Barb x QN100-M x QN100-M, Sweep \$9.23
1-1/4" Hos 25160-01	QN100 Hose Barb, QN100 x 1-1/4" Hose, Straight\$3.67
25161-01	QN100 Hose Barb, QN100 x 1-1/4" Hose, 90° Sweep
25162-01	QN100 Hose Barb, QN100 x 1-1/4" Hose, 45° Sweep
25169-00	QN100 TEE, 1-1/4" Hose Barb x QN100-M x QN100-M, Sweep \$9.23
1" QN SST	
25170-00	QN100 Adapter, Female Thread End, QN100-F x QN100 SST \$4.46
1" QN SST	Tube End Adapters (1.315" O.D.)
25171-00	QN100 Adapter, Male Thread End, QN100-F x QN100 SST \$2.38
41590-00	Boom Mount Clamp, Half, for 1.25" O.D. Tube
	Nut, End Caps & O-Rings
25160-03	QN100 Nut, QN100-F Thread\$2.55
25163-01	QN100 Plug, QN100 x Plug Cap\$2.03
25164-01	QN100 Adapter, QN100 x 3/4" NPT-F
25160-02	QN100 O-ring, #219 (for QN100 Fitting Joints), FKM \$0.69
25160-V2	QN100 O-ring, #219 (for QN100 Fitting Joints), VITON®
25172-00	QN100 TEE, QN100 x QN100-M x QN100-M, Sweep
	nt Clamps - Two (2) clamp halves are normally required.
41591-00	Boom Mount Clamp, Half, For QN100 SST (1.315" O.D.)
	Flush Valves (BEFV) & BEFV Components
25175-V0 25175-IV0	ON100 Flush Valve, Boom End, Compact Handle
25175-LVU 25176-V0	1" NPT-F Boom End Flush Valve, Compact Handle\$27.41
25176-VU 25176-IV0	1" NPT-F Boom End Flush Valve, Long Handle
25176-LV0 25137-00	QN100 Bushing Adapter, QN100-M x 1" NPT-F
25137-00 25137-V0	QN100 Bushing Kit. c/w VITON® 0-ring, QN100-M x 1" NPT-F \$5.38
25175-10	Flush Valve Cap, Replacement for any BEFV\$1.64
25175-10	BEFV Repair Kit, O-ring kit (2 Valves), VITON° \$12.28
25175-03	BEFV Replacement Handle, Compact Size
25175-13	BEFV Replacement Handle, Compact Size (1-1/4") \$2.98
	ings for Case Thin Wall Steel (TWS) Booms
25160-04	TWS Seal, Square-ring, FKM, #209\$1.47
41400-01	TWS Boom End Thread, Left & Right Thread Halves
41400-02	TWS Boom End Thread, Binding Ring (order with 41400-01) \$2.50
41400-03	TWS Nut, TWS-F, use with QN100 Fittings
41400-04	TWS Boom End Thread Adapter, TWS-M, Left Thread
41400-05	TWS Boom End Thread Adapter, TWS-M, Right Thread
41401-01	TWS Coupler, TWS-F x QN100-F (1-1/4" NPT-F Compatible) \$5.69
41402-V0	TWS Boom End Flush Valve, Compact Handle\$27.41
41402-IV0	TWS Boom End Flush Valve, Long Handle\$27.41
41403-00	TWS Bushing Adapter, TWS x 1" NPT-F\$3.19
41403-V0	TWS Bushing Adapter Kit, TWS x 1" NPT-F, c/w VITON® 0-ring \$5.38



NEW LONGER HANDLE VERSION Longer handled BEFV are available Handles can retrofit onto existing flush valves. QN100 BEFV 1" NPT VERSION 25175-V0 Case TWS BEFV 25175-LV0 25176-LV0

41402-LV0

15



25137-00 25175-10

Compact valve for flushing boom sections QN100 to Replacement & Retrofit Handles Available Fits QN100 or 1" NPT-M 25175-13 Long Handle 25175-03

CASE Thin Wall Steel (TWS) Boom End Flush Valve & Adapters Fits CASE TWS thread or 1" NPT-F with bushing Compact valve for flushing boom sections













41400-03 41401-01 41403-00 apts 1" NPT-M to Adapts 1" NPT-M to TWS Male Thread

1/2" QUICK-NUT (QN50) Stainless Steel Fluid Supply

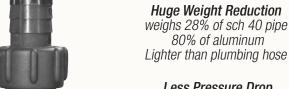
Engineered Sprayer Boom Pipe & Fitttings. Only smaller.



With addition of to the 1/2" Quick-Flange 50 series (QF50), Wilger is rebranding 1/2" Quick Nut Boom Fittings to QN50. Nothing has changed but the name.

Sweep Fittings

reduce turbulence & increase flow capacity



Less Pressure Drop with inside diameter >0.75"

Lower Cost compared to other pipe plumbed booms

Less Chemical Residue Build-Up compared to hose plumbed boom

Easy Maintenance & Repair without requiring tools or thread sealant



nless Steel Tubing (0.840" O.D.)

	QN50 Fit	tings & Components - Use with 1/2" Quick-Nut Stail
	QN50 x 1/2"	Hose Shank Fittings
	25120-01	QN50 Hose Barb, QN50 x 1/2" Hose, Straight\$3.31
	25122-01	QN50 Hose Barb, QN50 x 1/2" Hose, 90° Sweep
	25124-01	QN50 Hose Barb, QN50 x 1/2" Hose, 45° Sweep
	QN50 x 3/4"	Hose Shank Fittings
	25121-01	QN50 Hose Barb, QN50 x 3/4" Hose, Straight\$3.31
	25123-01	QN50 Hose Barb, QN50 x 3/4" Hose, 90° Sweep
	25125-01	QN50 Hose Barb, QN50 x 3/4" Hose, 45° Sweep
	QN50 Swee	p Tee Fittings
	25128-00	QN50 Threaded TEE, QN50-M x QN50-M x QN50-M \$8.31
	QN50 O-ring	ps, Nuts & End Caps
	25120-02	QN50 O-ring, #116 (for QN50 Fitting Joints), FKM
	25120-V2	QN50 O-ring, #116 (for QN50 Fitting Joints), VITON®
	25120-03	QN50 Nut, QN50-F Thread (3/4" NPT Compatible)\$2.29
	25131-01	QN50 Plug, QN50 x Plug Cap
	25127-01	QN50 Adapter, QN50 x 1/4" NPTF\$4.62
	1/2" Boom (Clamp (0.84" 0.D.)- Two (2) clamp halves are normally required.
	41580-00	Boom Mount Clamp, Half, for QN50 SST (0.84" O.D. Tube) \$2.18
	QN50 Tube I	End Adapters (0.840" O.D.)
	25129-00	QN50 Adapter, Female Boom End Adapter, QN50-F x QN50 SST \$4.01
	25130-00	QN50 Adapter, Male Boom End Adapter, QN50-M x QN50 SST \$2.14
	Stainless	1/4" Bolt-Mount Boom Clamps (1" & 1/2" QN SST)
ı	Ottaniioss	174 Bolt Mount Boom Glamps (1 & 1/2 QN 001)

(Compatib	ie with #41580-00, #41590-00, #41591-00 Boom Gamps
40553-SS	Clamp, 1" Square Tube x Three Hole, 1/4" Bolt-Mount \$24.38
40554-SS	Clamp, 1-1/4" Square Tube x Three Hole, 1/4" Bolt-Mount \$24.38
40555-SS	Clamp, 1-1/2" Square Tube x Three Hole, 1/4" Bolt-Mount \$24.38



Square Tube

25128-00

QN50-M Thread

Two Half-Clamp Assembly (2x 41580-00)

25123-01

25122-01

25130-00

3/4" Hose





41580-00

Hose Shank & Threaded Tee Fittings Minimized pressure drop with sweep 45°, 90° & Tee fittings





QN50 Connections & Components

Easy assembly and dissassembly without tools QN50 thread is compatible with 3/4" NPT



25131-01





25120-02



thread adapter #25129-01 [Female Thread #25129-02 [Lock Sleeve]

Wilger Visual Ball Flow Indicators

See Any Application Accurately, Even When You Can't See Your Outlets.

Flow Indicators are used on Planting Equipment & Sprayers to illustrate any flow blockages (or overages).

Without using electronics, it is a simple set-up-and-go system that ensures you can see plugs or burst lines, ensuring you can maintain a consistent liquid application.



Example Flow Indication Overlay Colors for visual purposes only

Ball Flow Indicator Columns, Assemblies & Kits

For custom assemblies or kits, contact Wilger.

Required Flow Indicator Column Storage

Wilger Flow Indicator columns are made from a specialty UV stabilized compound (TPX™) that maximizes chemical resistance, allowing it to be used for a wide range of chemical applications. As with any plastic, UV exposure degrades the flow indicator columns. To maximize flow indicator column clarity, completely cover the flow indicator columns from UV exposure (sun/etc.) when not in use.

40550-SS

20460-03

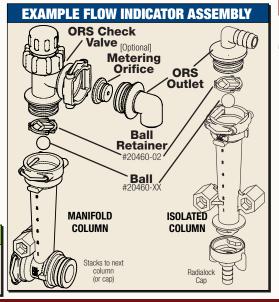
For monitoring many lines from a single feed (i.e. Liquid fertilizer kits for a planter)

Manifold Feed Ball Flow Indicators

. , ,			
Column Model	Kit	Part # & MSRP	
	FKM Kit	20475-00	
Liller Laur Flanc	FKIVI KIT	\$27.72	
Ultra Low Flow	D 1 0 1	20475-01	
0.01-0.24 us gpm	Body Only	\$17.12	
	FIXA IXI	20470-00	
	FKM Kit	\$27.72	
Low Flow	Double Oak	20470-01	
0.05-0.65 us gpm	Body Only	\$17.12	
	FKM Kit	20460-00	
Otana danid Elani	FKIVI KIT	\$27.72	
Standard Flow	De alex October	20460-01	
0.07-2.7 us gpm	Body Only	\$17.12	

*Manifold Kits include: Flow Indicator Body, Ball Retainer (#20460-02), 0-ring seal (#20460-03), 2x U-clips (#20460-04), Green Ball (#20460-08), Red Plastic Ball (#20460-07), Red Glass Ball (#20460-06), 1/2" Stainless Ball (#20460-05)





PRO TIP: Hassle-Free ORS Assembly

When assembling any Flow Indicator or O-ring Seal (ORS) components, using a touch of lubricant (e.g. liquid silicone) on O-rings makes assembly and maintenance easy.

Critical Feedback.

Isolated Feed Ball Flow Indicators

For monitoring individual lines (i.e. Squeeze Pump)

ŧ:	Column Model	Kit	Part # & MSRP
ř	Low Flow	Isolated Kit	20490-00 \$21.78
	LOW Flow	Dady Oak	20490-01
	0.05-0.65 us gpm	Body Only	\$13.70
		Isolated Kit	20480-00
	Standard Flow	Isolated Kit	\$21.78
		Body Only	20480-01
	0.07-2.7 us gpm	Dody Offig	\$13.70

*Isolated Kits include: Flow Indicator Body, Ball Retainer (#20460-02), U-clip (#20460-04), Green Ball (#20460-08), Red Plastic Ball (#20460-07), Red Glass Ball (#20460-06), 1/2" Stainless Ball (#20460-05)

Flow Indicator Column Specifications*		
Max Operating Pressure:	100 PSI (7 BAR)	
Max Metered Flow Rate:	Up to 8.0 US gpm	
Max Operating Temperature:	185°F / 85°C	
O-Ring Seal Materials:	FKM or Viton®	
U-clip Material:	Stainless Steel (302)	
ORS Fitting Material:	Glass-Reinforced Polypropylene	
Flow Column Material:	TPX™ (Polymethylpentene)	

Flow Indicator Components & Balls

20460-11	Manifold Feed Components Kit (w/o Indicator Body)	\$10.27
20480-02	Isolated Feed Components Kit (w/o Indicator Body)	\$6.88
20460-02	Ball Retainer	\$0.76
20460-04	U-Clip, 302SS	\$1.85
20460-03	O-ring - #212 FKM (For ORS Body and Fittings)	\$0.35
20460-15	O-ring - #212 Viton® (For ORS Body and Fittings)	\$2.32
40225-04	O-ring - #015 FKM (For ORS Metering Orifices)	\$0.26
40225-05	O-ring - #015 Viton® (For ORS Metering Orifices)	\$1.92
40550-SS	Clamp, 1" Square Tube x Two Hole, 1/4" Bolt-Mount	\$24.38
40551-SS	Clamp, 1-1/4" Square Tube x Two Hole, 1/4" Bolt-Mount	\$24.38
40552-SS	Clamp, 1-1/2" Square Tube x Two Hole, 1/4"_Bolt-Mount	\$24.38
	For Metering	
	0.10	-0

Flow Indicator Balls 20460-XX

20460-04 40225-04

For flow indicator ball selection, refer to the chart below, or use the calculators at www.wilger.net.

PRO TIP: Using two balls simultaneously - Helps cover changes in flow & speed

If a lighter ball suspends too high, try using the next heavier ball below, to cover changes in application rates or speeds.

ISRP
ISKP
0.90
0.90
0.90
0.90
0.90
0.90
1.88
2.02

*Density/Viscosity of liquid used can effect operating range. In very dense liquids, balls may float.

O-Ring Seal (ORS) Fittings & Components

Designed for Powerful Liquid Handling Solutions

For the Full Flow Indicator Brochure, visit www.wilger.net







ow indicator brochare, visit www.wiiger.net					
ORS to CJ Cap Check Valve Bodies					
Check Valve Style	90°	MSRP			
Dia. Check Valve	20560-00	\$8.19			
[10 PSI] Manual ON/OFF	20561-00	\$9.70			
[4 PSI] Manual ON/OFF	20561-P4	\$9.70			
Air-Off Operated	20562-00	\$17.24			
PWM/no-nut	20563-00	\$4.15			

O-Ring Seal (ORS) Hose Barb, Push-in Tube & Threaded Fittings

ORS Hose Barb Fittings

	Straight ORS Hose Barbs				
	1/4"	20500-00	\$3.52		
3/8"		20501-00	\$3.52		
	1/2"	20502-00	\$3.52		
	3/4"	20503-00	\$3.52		
IIIII	1"	20504-00	\$3.87		
	90° ORS Hose Barb				

MET I	1"	20504-00	\$3.87
	90°	ORS Hose	Barb
	3/8"	20511-00	\$3.52
	1/2"	20512-00	\$3.52
	5/8"	20514-00	\$3.52
	3/4"	20513-00	\$3.52
	1"	20515-00	\$3.87





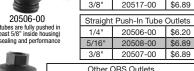


All ORS Components fit into Wilger Ball Flow Indicator Columns & Fittings Push In Tube & Threaded Fittings





20519-00



5/16"

Other ORS Outlets					
90° 1/4" NPT-F	20518-00	\$3.52			
1/4" NPT-F	20519-00	\$3.52			
ORS x Sq. Lug	20549-00	\$4.16			

PRO TIP: Lubricate when assembling ORS fittings

When assembling any flow indicator or 0-ring seal (ORS) components, using a touch of lubricant (e.g. liquid silicone) on the O-ring makes assembly and maintenance easy

PRO TIP EXAMPLE: 0-ring Seal Hose & Tube Menders/Couplers/Reducers

20518-00

3/8" Hose to 1/4" Tube Coupler: #20501-00 + #20540-00

New Outlet Adapter

The new ORS to Square Lug adapter adapts

to any square lug nozzle cap (e.g. Teeiet/

Hypro/Varitarget) that might be used in

liquid fertilizer kits for even more options.

#20549-00 Allows fixed orientation in 90°

increments

1/4" Mender (Tube only): #20516-00 + #20540-00

3/8" to 1/4" Tube Reducer: #20517-00 + #20540-00

90° Push-In Tube ORS Outlets

20528-00

20516-00 \$6.20

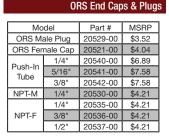
\$6.89

O-Ring Seal (ORS) End Cap & Tee Components

ORS Tees and Other Plumbing Fittings

Model	Part #	MSRP
ORS Strainer [50 Mesh]	20576-00	\$14.51
Replacement Strainer Only [50 Mesh]	20576-02	\$5.75
90° ORS Elbow [M x F]	20520-00	\$7.46
ORS Tee w/ 1/4" NPT-F [M x M x F w/1/4" NPT]	20526-00	\$9.40
3/8" x Blind ORS Tee [Blind F x M x 3/8" NPT]	20523-00	\$7.86
3/8" NPT-F x ORS Tee [F x M x 3/8" NPT]	20524-00	\$7.86
2 Outlet ORS-F Splitter [F x F x M]	20527-00	\$9.94
1" NPT-F x ORS Tee [M x M x 1" NPT]	20525-00	\$9.40
·		









PRO TIP: Planning your manifold plumbing

1. Depending on size of the manifold bank, plumb with a center-fed tee.

2. Limiting stacked flow indicators ensures more consistent ball levels & pressure. [e.g. Using 5 flow columns on both sides of a tee can indicate more consistently than a bank of 10 consecutive flow indicators in a row.]

3. Using 1 flow column per outlet (opener/spray tip/row) will provide the most accurate depiction of flow

0-Ring Seal Manifolds

A new Wilger ORS manifold that will make it even easier and cost effective to setup and manage liquid applications.

O-ring Part # MSRP Model FKM 20527-00 \$9.94 2 Outlet Splitter Body Only 20527-01 \$3.98 FKM 20571-00 \$9.94 1 Outlet Manifold Body Only 20571-01 \$3.98 FKM 20572-00 \$12.14 2 Outlet Manifold Body Only 20572-01 \$4.84 \$14.34 FKM 20573-00 3 Outlet Manifold Body Only 20573-01 \$5.70 FKM 20574-00 \$16.88 4 Outlet Manifold Body Only 20574-01





18







O-Ring Seal (ORS) Metering Orifices

Consistent & Accurate Flow Metering Orifices

To determine the flow rate (or application rate), use the following equations & density conversion chart: **W** = Outlet Spacing (INCH) **GPM** - **GPA** x mph x W x conv **GPA** =

For the Full Flow Indicator Brochure, visit www.wilger.net

O-Ring Seal (ORS) Metering Orifices

O-Ring Seal (ORS) metering orifices fit into any ORS outlets.

Custom Drilled ORS Orifices Color Coded Molded ORS Orifices O-ring Seal Blank Orifice 01 to 20 size 21500-VXXX Metering Orifices FKM Viton® FKM VITON® to 007 size ORS Orifice Part # 21500-VXXX 21XXX-00 21000-00 21000-V0 21XXX-V0 Color Coded Color Black Black Color Coded Black Black MSRP \$5.78 \$7.59 \$4.74 \$3.89 \$0.89 \$2.70

 $GPM = GPA \times mph \times W \times conv$

5940



21XXX-00

conv = Conversion Factor based on (per outlet)

Calculating Required Flow Rate

Orifice can't rust Larger & easier to handle 0-ring seal for positive seal Orifice orientation can't be accidently reversed Better accuracy for small orifice sizes

Color-Coded Molded Orifices

 $GPA = 5940 \times GPM (per outlet)$

mph x W

21500-V01

Color coded sizes make identifying orifices

Solution Weight (lbs/ us gallon)	Specific Gravity	Conversion Factor (conv)
7.0	0.84	0.92
8.34 (Water)	1.00	1.00
9.0	1.08	1.04
10.0	1.20	1.10
10.65 (28-0-0)	1.28	1.13
11.0	1.32	1.15
11.65 (10-34-0)	1.39	1.18
40.0	4 4 4	4.00

specific gravity/we	ight of liquid	, (pe	TACV	TO 110F	5940	e	!! ! .		mpn x w	اسسا	WICE	:D	
			EASY-	-10-USE	URS orn	rice and i	oaii seie	ctor caicu	lator available	@ www.	VII.O.	IK,NET	_
Orifice	Flow Rate (US gallons/minute)							Orifice	Flow Ra			2	
Part#*	5PSI	10PSI	15PSI	20PSI	25PSI	30PSI	35PSI	40PSI	Part#*	5PSI	10PSI	15PSI	ļ
21009-XX	0.004	0.005	0.006	0.007	0.008	0.009	0.010	0.010	21075-XX	0.245	0.346	0.424	ļ
21011-XX	0.006	0.008	0.010	0.011	0.013	0.014	0.015	0.016	21078-XX	0.274	0.387	0.474	ļ
21013-XX	0.008	0.011	0.013	0.016	0.017	0.019	0.021	0.022	21500-V08	0.282	0.398	0.488	ļ
21015-XX	0.010	0.014	0.018	0.020	0.023	0.025	0.027	0.029	21081-XX	0.290	0.410	0.502	ļ
21500-V003	0.011	0.015	0.018	0.021	0.024	0.026	0.028	0.030	21083-XX	0.318	0.450	0.552	ļ
21018-XX	0.015	0.021	0.025	0.029	0.033	0.036	0.039	0.042	21086-XX	0.331	0.468	0.573	ļ
21500-V005	0.018	0.025	0.030	0.035	0.039	0.043	0.046	0.050	21089-XX	0.347	0.491	0.601	ļ
21020-XX	0.018	0.026	0.032	0.037	0.041	0.045	0.049	0.052	21500-V10	0.355	0.502	0.615	ŀ
21022-XX	0.022	0.031	0.037	0.043	0.048	0.053	0.057	0.061	21091-XX	0.372	0.525	0.643	ļ
21500-V007	0.024	0.033	0.041	0.047	0.053	0.058	0.063	0.067	21093-XX	0.388	0.548	0.672	ļ
21025-XX	0.028	0.039	0.048	0.056	0.062	0.068	0.073	0.079	21096-XX	0.416	0.589	0.721	ŀ
21026-XX 21027-XX	0.031	0.043	0.053	0.061	0.068	0.075	0.081	0.087	21500-V125	0.441	0.624	0.764	ŀ
	0.032	0.046				0.079	0.085		21102-XX	0.461	0.652	0.799	ł
21028-XX 21500-V01	0.035	0.049	0.060	0.069	0.078	0.087	0.092	0.098	21104-XX 21107-XX	0.478	0.873	0.898	ł
21029-XX	0.045	0.064	0.002	0.090	0.100	0.110	0.119	0.100	21500-V15	0.531	0.751	0.030	ł
21023 XX	0.045	0.064	0.078	0.090	0.100	0.110	0.119	0.127	21110-XX	0.547	0.774	0.948	t
21500-V015	0.053	0.075	0.092	0.106	0.119	0.130	0.140	0.150	21113-XX	0.580	0.820	1.00	ł
21035-XX	0.057	0.081	0.099	0.114	0.128	0.140	0.151	0.162	21116-XX	0.608	0.860	1.05	t
21037-XX	0.061	0.087	0.106	0.122	0.137	0.150	0.162	0.173	21120-XX	0.629	0.889	1.09	ł
21039-XX	0.069	0.098	0.120	0.139	0.155	0.170	0.184	0.196	21125-XX	0.694	0.981	1.20	İ
21500-V02	0.073	0.104	0.127	0.147	0.164	0.180	0.194	0.208	21500-V20	0.706	0.999	1.22	İ
21041-XX	0.078	0.110	0.134	0.155	0.173	0.190	0.205	0.219	21128-XX	0.723	1.02	1.25	Ī
21043-XX	0.082	0.115	0.141	0.163	0.183	0.200	0.216	0.231	21130-XX	0.751	1.06	1.30	
21500-V025	0.090	0.127	0.156	0.180	0.201	0.220	0.238	0.254	21136-XX	0.841	1.19	1.46	
21046-XX	0.094	0.133	0.163	0.188	0.210	0.230	0.248	0.266	21140-XX	0.894	1.26	1.55	
21047-XX	0.098	0.139	0.170	0.196	0.219	0.240	0.259	0.277	21144-XX	0.927	1.31	1.61	l
21049-XX	0.106	0.150	0.184	0.212	0.237	0.260	0.281	0.300	21147-XX	0.951	1.35	1.65	ļ
21500-V03	0.106	0.150	0.184	0.212	0.237	0.260	0.281	0.300	21150-XX	1.02	1.44	1.77	ļ
21051-XX	0.114	0.162	0.198	0.229	0.256	0.280	0.302	0.323	21152-XX	1.05	1.49	1.82	ļ
21052-XX	0.118	0.167	0.205	0.237	0.265	0.290	0.313	0.335	21156-XX	1.10	1.55	1.90	ļ
21055-XX	0.135	0.191	0.233	0.269	0.301	0.330	0.356	0.381	21161-XX	1.16	1.63	2.00	ŀ
21500-V04	0.143	0.202	0.247	0.286	0.320	0.350	0.378	0.404	21166-XX	1.21	1.71	2.10	ļ
21060-XX	0.159	0.225	0.276	0.318	0.356	0.390	0.421	0.450	21172-XX	1.33	1.88	2.31	ļ
21061-XX	0.163	0.231	0.283	0.327	0.365	0.400	0.432	0.462	21177-XX	1.41	2.00	2.45	ļ
21063-XX	0.176	0.248	0.304	0.351	0.393	0.430	0.464	0.497	21182-XX	1.47	2.08	2.55	ŀ
21500-V05	0.180	0.254	0.311	0.359	0.402	0.440	0.475	0.508	21187-XX	1.56	2.21	2.70	ł
21064-XX	0.180	0.254	0.311	0.359	0.402	0.440	0.475	0.508	21196-XX	1.73	2.45	3.00	H
21065-XX 21067-XX	0.184	0.260	0.318	0.367	0.411	0.450	0.486	0.520	21205-XX 21213-XX	1.87 2.02	2.65 2.85	3.25	H
21500-V06	0.196	0.277	0.368	0.392	0.436	0.480	0.562	0.600	21213-XX 21218-XX	2.02	2.98	3.49	l
21070-XX	0.212	0.306	0.375	0.423	0.475	0.520	0.572	0.612	21216-XX 21234-XX	2.11	3.47	4.25	-
21070-XX	0.210	0.329	0.403	0.465	0.484	0.570	0.616	0.658	21250-XX	2.43	4.00	4.23	ł
Z 1070-///	0.200	0.029	0.400	0.400	0.020	0.570	0.010	0.000	Z 1230-XX		_ - .00	50	L

Orifice	Flow Rate (US gallons/minute)							
Part#*	5PSI	10PSI	15PSI	20PSI	25PSI	30PSI	35PSI	40PSI
21075-XX	0.245	0.346	0.424	0.490	0.548	0.600	0.648	0.693
21078-XX	0.274	0.387	0.474	0.547	0.612	0.670	0.724	0.774
21500-V08	0.282	0.398	0.488	0.563	0.630	0.690	0.745	0.797
21081-XX	0.290	0.410	0.502	0.580	0.648	0.710	0.767	0.820
21083-XX	0.318	0.450	0.552	0.637	0.712	0.780	0.842	0.901
21086-XX	0.331	0.468	0.573	0.661	0.739	0.810	0.875	0.935
21089-XX	0.347	0.491	0.601	0.694	0.776	0.850	0.918	0.981
21500-V10	0.355	0.502	0.615	0.710	0.794	0.870	0.940	1.00
21091-XX	0.372	0.525	0.643	0.743	0.831	0.910	0.983	1.05
21093-XX	0.388	0.548	0.672	0.776	0.867	0.950	1.03	1.10
21096-XX	0.416	0.589	0.721	0.833	0.931	1.02	1.10	1.18
21500-V125	0.441	0.624	0.764	0.882	0.986	1.08	1.17	1.25
21102-XX	0.461	0.652	0.799	0.923	1.03	1.13	1.22	1.30
21104-XX	0.478	0.675	0.827	0.955	1.07	1.17	1.26	1.35
21107-XX	0.518	0.733	0.898	1.037	1.16	1.27	1.37	1.47
21500-V15	0.531	0.751	0.919	1.061	1.19	1.30	1.40	1.50
21110-XX	0.547	0.774	0.948	1.094	1.22	1.34	1.45	1.55
21113-XX	0.580	0.820	1.00	1.16	1.30	1.42	1.53	1.64
21116-XX	0.608	0.860	1.05	1.22	1.36	1.49	1.61	1.72
21120-XX	0.629	0.889	1.09	1.26	1.41	1.54	1.66	1.78
21125-XX	0.694	0.981	1.20	1.39	1.55	1.70	1.84	1.96
21500-V20	0.706	0.999	1.22	1.41	1.58	1.73	1.87	2.00
21500-V20 21128-XX	0.706 0.723	0.999 1.02	1.22 1.25	1.41 1.45	1.58 1.62	1.73 1.77	1.87 1.91	2.00
21128-XX	0.723	1.02	1.25	1.45	1.62	1.77	1.91	2.04
21128-XX 21130-XX	0.723 0.751	1.02 1.06	1.25 1.30	1.45 1.50	1.62 1.68	1.77 1.84	1.91 1.99	2.04
21128-XX 21130-XX 21136-XX 21140-XX 21144-XX	0.723 0.751 0.841	1.02 1.06 1.19 1.26 1.31	1.25 1.30 1.46	1.45 1.50 1.68	1.62 1.68 1.88	1.77 1.84 2.06 2.19 2.27	1.91 1.99 2.23	2.04 2.12 2.38
21128-XX 21130-XX 21136-XX 21140-XX	0.723 0.751 0.841 0.894	1.02 1.06 1.19 1.26	1.25 1.30 1.46 1.55	1.45 1.50 1.68 1.79	1.62 1.68 1.88 2.00	1.77 1.84 2.06 2.19	1.91 1.99 2.23 2.37	2.04 2.12 2.38 2.53
21128-XX 21130-XX 21136-XX 21140-XX 21144-XX	0.723 0.751 0.841 0.894 0.927	1.02 1.06 1.19 1.26 1.31	1.25 1.30 1.46 1.55 1.61	1.45 1.50 1.68 1.79 1.85	1.62 1.68 1.88 2.00 2.07	1.77 1.84 2.06 2.19 2.27	1.91 1.99 2.23 2.37 2.45	2.04 2.12 2.38 2.53 2.62
21128-XX 21130-XX 21136-XX 21140-XX 21144-XX 21147-XX	0.723 0.751 0.841 0.894 0.927 0.951	1.02 1.06 1.19 1.26 1.31 1.35	1.25 1.30 1.46 1.55 1.61 1.65	1.45 1.50 1.68 1.79 1.85 1.90	1.62 1.68 1.88 2.00 2.07 2.13	1.77 1.84 2.06 2.19 2.27 2.33	1.91 1.99 2.23 2.37 2.45 2.52	2.04 2.12 2.38 2.53 2.62 2.69
21128-XX 21130-XX 21136-XX 21140-XX 21144-XX 21147-XX 21150-XX	0.723 0.751 0.841 0.894 0.927 0.951 1.02	1.02 1.06 1.19 1.26 1.31 1.35 1.44	1.25 1.30 1.46 1.55 1.61 1.65 1.77	1.45 1.50 1.68 1.79 1.85 1.90 2.04	1.62 1.68 1.88 2.00 2.07 2.13 2.28 2.36 2.46	1.77 1.84 2.06 2.19 2.27 2.33 2.50 2.58 2.69	1.91 1.99 2.23 2.37 2.45 2.52 2.70	2.04 2.12 2.38 2.53 2.62 2.69 2.89
21128-XX 21130-XX 21136-XX 21140-XX 21144-XX 21147-XX 21150-XX 21152-XX	0.723 0.751 0.841 0.894 0.927 0.951 1.02 1.05	1.02 1.06 1.19 1.26 1.31 1.35 1.44 1.49 1.55	1.25 1.30 1.46 1.55 1.61 1.65 1.77 1.82	1.45 1.50 1.68 1.79 1.85 1.90 2.04 2.11	1.62 1.68 1.88 2.00 2.07 2.13 2.28 2.36 2.46 2.58	1.77 1.84 2.06 2.19 2.27 2.33 2.50 2.58	1.91 1.99 2.23 2.37 2.45 2.52 2.70 2.79	2.04 2.12 2.38 2.53 2.62 2.69 2.89 2.98
21128-XX 21130-XX 21136-XX 21140-XX 21144-XX 21147-XX 21150-XX 21152-XX 21156-XX	0.723 0.751 0.841 0.894 0.927 0.951 1.02 1.05 1.10	1.02 1.06 1.19 1.26 1.31 1.35 1.44 1.49 1.55	1.25 1.30 1.46 1.55 1.61 1.65 1.77 1.82 1.90	1.45 1.50 1.68 1.79 1.85 1.90 2.04 2.11 2.20	1.62 1.68 1.88 2.00 2.07 2.13 2.28 2.36 2.46	1.77 1.84 2.06 2.19 2.27 2.33 2.50 2.58 2.69	1.91 1.99 2.23 2.37 2.45 2.52 2.70 2.79 2.91	2.04 2.12 2.38 2.53 2.62 2.69 2.89 2.98 3.11
21128-XX 21130-XX 21136-XX 21140-XX 21144-XX 21147-XX 21150-XX 21152-XX 21156-XX 21161-XX	0.723 0.751 0.841 0.894 0.927 0.951 1.02 1.05 1.10 1.16	1.02 1.06 1.19 1.26 1.31 1.35 1.44 1.49 1.55	1.25 1.30 1.46 1.55 1.61 1.65 1.77 1.82 1.90 2.00	1.45 1.50 1.68 1.79 1.85 1.90 2.04 2.11 2.20 2.31	1.62 1.68 1.88 2.00 2.07 2.13 2.28 2.36 2.46 2.58	1.77 1.84 2.06 2.19 2.27 2.33 2.50 2.58 2.69 2.83	1.91 1.99 2.23 2.37 2.45 2.52 2.70 2.79 2.91 3.06	2.04 2.12 2.38 2.53 2.62 2.69 2.89 2.98 3.11 3.27
21128-XX 21130-XX 21136-XX 21140-XX 21144-XX 21147-XX 21150-XX 21152-XX 21156-XX 21161-XX 21166-XX	0.723 0.751 0.841 0.894 0.927 0.951 1.02 1.05 1.10 1.16 1.21	1.02 1.06 1.19 1.26 1.31 1.35 1.44 1.49 1.55 1.63 1.71 1.88 2.00	1.25 1.30 1.46 1.55 1.61 1.65 1.77 1.82 1.90 2.00 2.10	1.45 1.50 1.68 1.79 1.85 1.90 2.04 2.11 2.20 2.31 2.42	1.62 1.68 1.88 2.00 2.07 2.13 2.28 2.36 2.46 2.58 2.71	1.77 1.84 2.06 2.19 2.27 2.33 2.50 2.58 2.69 2.83 2.97	1.91 1.99 2.23 2.37 2.45 2.52 2.70 2.79 2.91 3.06 3.21	2.04 2.12 2.38 2.53 2.62 2.69 2.89 2.98 3.11 3.27 3.43
21128-XX 21130-XX 21136-XX 21140-XX 21144-XX 21147-XX 21150-XX 21152-XX 21156-XX 21161-XX 21166-XX 21172-XX	0.723 0.751 0.841 0.894 0.927 0.951 1.02 1.05 1.10 1.16 1.21 1.33	1.02 1.06 1.19 1.26 1.31 1.35 1.44 1.49 1.55 1.63 1.71	1.25 1.30 1.46 1.55 1.61 1.65 1.77 1.82 1.90 2.00 2.10 2.31	1.45 1.50 1.68 1.79 1.85 1.90 2.04 2.11 2.20 2.31 2.42 2.66	1.62 1.68 1.88 2.00 2.07 2.13 2.28 2.36 2.46 2.58 2.71 2.98	1.77 1.84 2.06 2.19 2.27 2.33 2.50 2.58 2.69 2.83 2.97 3.26	1.91 1.99 2.23 2.37 2.45 2.52 2.70 2.79 2.91 3.06 3.21 3.52	2.04 2.12 2.38 2.53 2.62 2.69 2.89 2.98 3.11 3.27 3.43 3.76
21128-XX 21130-XX 21136-XX 21140-XX 21144-XX 21147-XX 21150-XX 21152-XX 21156-XX 21161-XX 21166-XX 21172-XX 21177-XX	0.723 0.751 0.841 0.894 0.927 0.951 1.02 1.05 1.10 1.16 1.21 1.33 1.41	1.02 1.06 1.19 1.26 1.31 1.35 1.44 1.49 1.55 1.63 1.71 1.88 2.00 2.08 2.21	1.25 1.30 1.46 1.55 1.61 1.65 1.77 1.82 1.90 2.00 2.10 2.31 2.45	1.45 1.50 1.68 1.79 1.85 1.90 2.04 2.11 2.20 2.31 2.42 2.66 2.83	1.62 1.68 1.88 2.00 2.07 2.13 2.28 2.36 2.46 2.58 2.71 2.98 3.16	1.77 1.84 2.06 2.19 2.27 2.33 2.50 2.58 2.69 2.83 2.97 3.26 3.46	1.91 1.99 2.23 2.37 2.45 2.52 2.70 2.79 2.91 3.06 3.21 3.52 3.74	2.04 2.12 2.38 2.53 2.62 2.69 2.89 2.98 3.11 3.27 3.43 3.76 4.00
21128-XX 21130-XX 21136-XX 21140-XX 21144-XX 21147-XX 21150-XX 21152-XX 21156-XX 21161-XX 21166-XX 21172-XX 21177-XX 21182-XX	0.723 0.751 0.841 0.894 0.927 0.951 1.02 1.05 1.10 1.16 1.21 1.33 1.41 1.47	1.02 1.06 1.19 1.26 1.31 1.35 1.44 1.49 1.55 1.63 1.71 1.88 2.00 2.08	1.25 1.30 1.46 1.55 1.61 1.65 1.77 1.82 1.90 2.00 2.10 2.31 2.45 2.55	1.45 1.50 1.68 1.79 1.85 1.90 2.04 2.11 2.20 2.31 2.42 2.66 2.83 2.95	1.62 1.68 1.88 2.00 2.07 2.13 2.28 2.36 2.46 2.58 2.71 2.98 3.16 3.30	1.77 1.84 2.06 2.19 2.27 2.33 2.50 2.58 2.69 2.83 2.97 3.26 3.46 3.61	1.91 1.99 2.23 2.37 2.45 2.52 2.70 2.79 2.91 3.06 3.21 3.52 3.74 3.90	2.04 2.12 2.38 2.53 2.62 2.69 2.89 2.98 3.11 3.27 3.43 3.76 4.00 4.17
21128-XX 21130-XX 21136-XX 21140-XX 21144-XX 21147-XX 21150-XX 21152-XX 21156-XX 21161-XX 21166-XX 21172-XX 21177-XX 21182-XX 21187-XX	0.723 0.751 0.841 0.894 0.927 0.951 1.02 1.05 1.10 1.16 1.21 1.33 1.41 1.47 1.56	1.02 1.06 1.19 1.26 1.31 1.35 1.44 1.49 1.55 1.63 1.71 1.88 2.00 2.08 2.21 2.45 2.65	1.25 1.30 1.46 1.55 1.61 1.65 1.77 1.82 1.90 2.00 2.10 2.31 2.45 2.55 2.70	1.45 1.50 1.68 1.79 1.85 1.90 2.04 2.11 2.20 2.31 2.42 2.66 2.83 2.95 3.12	1.62 1.68 1.88 2.00 2.07 2.13 2.28 2.36 2.46 2.58 2.71 2.98 3.16 3.30 3.49	1.77 1.84 2.06 2.19 2.27 2.33 2.50 2.58 2.69 2.83 2.97 3.26 3.46 3.61 3.82	1.91 1.99 2.23 2.37 2.45 2.52 2.70 2.79 2.91 3.06 3.21 3.52 3.74 3.90 4.13	2.04 2.12 2.38 2.53 2.62 2.69 2.89 2.98 3.11 3.27 3.43 3.76 4.00 4.17 4.41
21128-XX 21130-XX 21136-XX 21140-XX 21144-XX 21147-XX 21150-XX 21152-XX 21156-XX 21161-XX 21166-XX 21172-XX 21177-XX 21182-XX 21187-XX 21196-XX	0.723 0.751 0.841 0.894 0.927 0.951 1.02 1.05 1.10 1.16 1.21 1.33 1.41 1.47 1.56 1.73	1.02 1.06 1.19 1.26 1.31 1.35 1.44 1.49 1.55 1.63 1.71 1.88 2.00 2.08 2.21 2.45	1.25 1.30 1.46 1.55 1.61 1.65 1.77 1.82 1.90 2.00 2.10 2.31 2.45 2.55 2.70 3.00 3.25 3.49	1.45 1.50 1.68 1.79 1.85 1.90 2.04 2.11 2.20 2.31 2.42 2.66 2.83 2.95 3.12	1.62 1.68 1.88 2.00 2.07 2.13 2.28 2.36 2.46 2.58 2.71 2.98 3.16 3.30 3.49 3.87	1.77 1.84 2.06 2.19 2.27 2.33 2.50 2.58 2.69 2.83 2.97 3.26 3.46 3.61 3.82 4.24	1.91 1.99 2.23 2.37 2.45 2.52 2.70 2.79 2.91 3.06 3.21 3.52 3.74 3.90 4.13 4.58	2.04 2.12 2.38 2.53 2.62 2.69 2.89 2.98 3.11 3.27 3.43 3.76 4.00 4.17 4.41 4.90
21128-XX 21130-XX 21136-XX 21140-XX 21144-XX 21147-XX 21150-XX 21152-XX 21156-XX 21161-XX 21166-XX 21172-XX 21177-XX 21182-XX 21187-XX 21196-XX 21196-XX 21196-XX	0.723 0.751 0.841 0.894 0.927 0.951 1.02 1.05 1.10 1.16 1.21 1.33 1.41 1.47 1.56 1.73 1.87	1.02 1.06 1.19 1.26 1.31 1.35 1.44 1.49 1.55 1.63 1.71 1.88 2.00 2.08 2.21 2.45 2.65	1.25 1.30 1.46 1.55 1.61 1.65 1.77 1.82 1.90 2.00 2.10 2.31 2.45 2.55 2.70 3.00 3.25	1.45 1.50 1.68 1.79 1.85 1.90 2.04 2.11 2.20 2.31 2.42 2.66 2.83 2.95 3.12 3.46 3.75	1.62 1.68 1.88 2.00 2.07 2.13 2.28 2.36 2.46 2.58 2.71 2.98 3.16 3.30 3.49 3.87 4.19	1.77 1.84 2.06 2.19 2.27 2.33 2.50 2.58 2.69 2.83 2.97 3.26 3.46 3.61 3.82 4.24 4.59	1.91 1.99 2.23 2.37 2.45 2.52 2.70 2.79 2.91 3.06 3.21 3.52 3.74 3.90 4.13 4.58 4.96	2.04 2.12 2.38 2.53 2.62 2.69 2.89 2.98 3.11 3.27 3.43 3.76 4.00 4.17 4.41 4.90 5.30
21128-XX 21130-XX 21136-XX 21140-XX 21144-XX 21147-XX 21150-XX 21152-XX 21156-XX 21166-XX 21172-XX 21177-XX 21182-XX 21187-XX 21196-XX 21196-XX 21196-XX 21205-XX 21213-XX	0.723 0.751 0.841 0.894 0.927 0.951 1.02 1.05 1.10 1.16 1.21 1.33 1.41 1.47 1.56 1.73 1.87 2.02	1.02 1.06 1.19 1.26 1.31 1.35 1.44 1.49 1.55 1.63 1.71 1.88 2.00 2.08 2.21 2.45 2.65 2.85	1.25 1.30 1.46 1.55 1.61 1.65 1.77 1.82 1.90 2.00 2.10 2.31 2.45 2.55 2.70 3.00 3.25 3.49	1.45 1.50 1.68 1.79 1.85 1.90 2.04 2.11 2.20 2.31 2.42 2.66 2.83 2.95 3.12 3.46 3.75 4.03	1.62 1.68 1.88 2.00 2.07 2.13 2.28 2.36 2.46 2.58 2.71 2.98 3.16 3.30 3.49 3.87 4.19 4.51	1.77 1.84 2.06 2.19 2.27 2.33 2.50 2.58 2.69 2.83 2.97 3.26 3.46 3.61 3.82 4.24 4.59 4.94	1.91 1.99 2.23 2.37 2.45 2.52 2.70 2.79 2.91 3.06 3.21 3.52 3.74 3.90 4.13 4.58 4.96 5.34	2.04 2.12 2.38 2.53 2.62 2.69 2.89 2.98 3.11 3.27 3.43 3.76 4.00 4.17 4.41 4.90 5.30 5.70
21128-XX 21130-XX 21136-XX 21140-XX 21144-XX 21147-XX 21150-XX 21152-XX 21156-XX 21166-XX 21172-XX 21177-XX 21182-XX 21187-XX 21205-XX 21213-XX	0.723 0.751 0.841 0.894 0.927 0.951 1.02 1.05 1.10 1.16 1.21 1.33 1.41 1.47 1.56 1.73 1.87 2.02 2.11	1.02 1.06 1.19 1.26 1.31 1.35 1.44 1.49 1.55 1.63 1.71 1.88 2.00 2.08 2.21 2.45 2.65 2.85 2.98	1.25 1.30 1.46 1.55 1.61 1.65 1.77 1.82 1.90 2.00 2.10 2.31 2.45 2.55 2.70 3.00 3.25 3.49 3.65	1.45 1.50 1.68 1.79 1.85 1.90 2.04 2.11 2.20 2.31 2.42 2.66 2.83 2.95 3.12 3.46 3.75 4.03 4.21	1.62 1.68 1.88 2.00 2.07 2.13 2.28 2.36 2.46 2.58 2.71 2.98 3.16 3.30 3.49 3.87 4.19 4.51	1.77 1.84 2.06 2.19 2.27 2.33 2.50 2.58 2.69 2.83 2.97 3.26 3.46 3.61 3.82 4.24 4.59 4.94 5.16	1.91 1.99 2.23 2.37 2.45 2.52 2.70 2.79 2.91 3.06 3.21 3.52 3.74 3.90 4.13 4.58 4.96 5.34 5.57	2.04 2.12 2.38 2.53 2.62 2.69 2.89 2.98 3.11 3.27 3.43 3.76 4.00 4.17 4.41 4.90 5.30 5.70 5.96

Wilger Electronic Flow Monitoring System

A New Row-by-Row Flowmeter & Monitoring System

For the Full Flow Monitoring System Brochure, visit www.wilger.net

NEW PRECISION WILGER PRODUCT: Electronic Flowmeter (EFM) & Electronic Monitoring System

Introducing a new Row-by-Row Flow Monitoring System. It works like a charm!

The Wilger electronic flowmeter (EFM) is a service-able flowmeter designed & built specifically for agricultural chemical & liquid applications.

The patented stabilizing jets maintain accuracy & consistency over a huge flow range,
and it is part of the Wilger 0-ring seal fitting family, so it can easily retro-fit into existing flow indicator manifolds.

Electronic Flowmeter body mates into any ORS fitting

Clear TPX flowmeter body for clear visual & non-stick surface

Sensor cables simply connect into daisy-chained product nodes

Retrofitting to a EFM System is Easy!

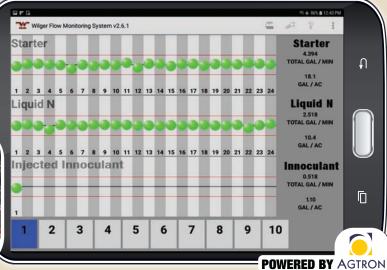
Visual Flow Indicator to Electronic

Example [Below] shows 2 products applied on 11 rows.

Electronic Flow Monitoring System HighlightsMonitor up to 196 outlets, split on up to 10 sections

Monitor up to 3 Products Simultaneously

Easy To Install: Wireless WIFI to Tablet (No data req'd) Accurately Measures Flow Rates of 0.04 - 1.53 US GPM



Required Flowmeter Storage

Wilger flowmeter bodies are made from a specialty UV stabilized compound (TPX[™]) that maximizes chemical resistance, allowing it to be used for a wide range of chemical applications. As with any plastic, UV exposure degrades the flowmeter housing. To maximize flowmeter longevity, it is required to completely cover the flowmeter from any UV exposure (sun/etc.) when not in use.

Keyed DEUTSCH_® Connectors

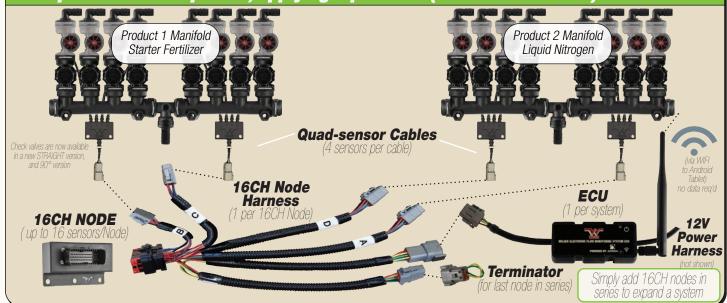
As EFM connectors are keyed connectors, they cannot be inserted in the wrong orientation, or with the wrong Wilger parts.



POWERED BY AGTRON

For this aftermarket EFM system, Wilger works with Agtron as an industry partner for tried & tested Agtron Electronic Components.

Example of an 8-row planter, applying 2 products (Starter & Fertilizer)



Wilger Electronic Flow Monitoring System Components

Row-by-Row Flowmeter & Monitoring System Components

\$173.54

\$229 24

For the Full Flow Monitoring System Brochure, visit www.wilger.net

Electonic Flowmeter Kits & Sensor Cables Electronic Flowmeter (EFM), 4CH, 16CH, and Base ECU Kits 20580-00 Flowmeter Kit, EFM, incl. 4 JET (no sensor), up to 1.53 us gpm . \$43.66 ECU TEE Splitter Kit, EFM, 8-pin, EFM (c/w terminator) . 20605-00 20585-00 Quad-sensor Cable Assy, EFM, ~18" (for 16CH node) 20611-00 16CH Node & Harness Assy, EFM (no sensors). 4CH Kits & Sensor Cables EFM, 4CH Node Kit (incl. Node, harness, 4x sensor cables).... 20620-00 20584-00 Single Sensor Cable, 6", EFM (for 4CH node). \$27.12 20584-10 Single Sensor Cable, 10', EFM (for 4CH node) \$74.48 20608-00 4CH Node & Harness Assy, EFM (no sensors). . \$606.00 ORS Manifolds with Check Valve* and EFM Body (no inlet, outlet, caps, or sensors) Manifold Outlets MSRP Check Valve Part # 90° 20631-00 1 FFM Outlet \$62.78 20641-00 Straight 90° 20632-00 2 FFM Outlet \$118.16 Straight 20642-00

*4PSI Check Valve Options Available - Change 'XXXXX-00' to 'XXXXXX-P4' For very low flow requirements (<0.1 us gpm), 4PSI check valves may be required.

20633-00

20643-00

20634-00

20644-00

Electronic Flow Monitoring System Components

90°

Straight

Straight

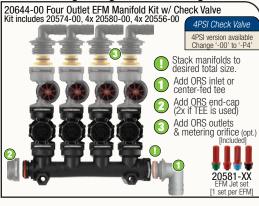
3 EFM Outlet

4 EFM Outlet

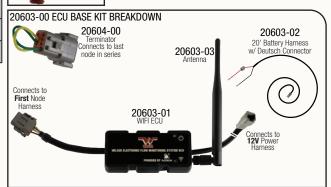
Extension I	Harnesses & Cover Caps
20609-00	4CH Harness Cover Cap, EFM (for unused 3-pin, 4CH) \$12.87
20612-00	16CH Harness Cover Cap, EFM (for unused 6-pin, 16CH) \$18.54
20615-06	Extension Harness, 16CH Harness to Sensor (6-pin), 6'\$80.00
20615-12	Extension Harness, 16CH Harness to Sensor (6-pin), 12' \$136.00
20616-12	Extension Harness, Universal Node/ECU to Node (8-pin), 12' \$94.00
20616-24	Extension Harness, Universal Node/ECU to Node (8-pin), 24' \$159.80
Componen	t & Auxiliary Components
20580-06	EFM, Body Assy, TPX, ORS (no jets, body assy only)\$41.16
20580-01	EFM, Body Only, TPX\$9.95
20580-02	EFM, Module c/w O-ring (no sensor)\$4.37
20580-08	EFM, Impeller Assembly\$1.98
20580-10	EFM, Impeller Magnet\$0.60
20580-11	EFM, Impeller Axle Pin\$0.65
20580-13	EFM, O-Ring, #119, VITON® (for EFM module)\$0.56
20581-01	EFM Jet, 0.04-0.12 us gpm, Green\$1.87
20581-03	EFM Jet, 0.10-0.31 us gpm, Red\$1.87
20581-05	EFM Jet, 0.18-0.98 us gpm, Light Blue\$1.87
20581-07	EFM Jet, 0.57-1.53 us gpm, Black\$1.87
20583-00	EFM Sensor Cable, Single w/o Connector\$20.34
20603-01	EFM System ECU (ecu only)\$1,470.00
20603-02	ECU Battery Harness, 20', c/w Fuse\$255.00
20603-03	ECU Antenna (50' range)\$36.00
20604-00	ECU Harness Terminator (8-pin)\$73.20
20608-01	EFM, 4CH Node (no harness) \$354.00
20608-02	EFM, 4CH Node Harness (no node)\$252.00
20611-01	EFM, 16CH NODE (no harness)
20611-02	EFM, 16CH Node Harness (no node)\$351.00
	ount Components
20600-00	Android Tablet (Android 8.0 or newer)
	Wilger Electronic Flow Monitoring AppFREE
20601-00	TABLET CASE (Universal 8" Tablet)
20602-00	RAM® TABLET MOUNT (Universal 8" Tablet)



ORS Plumbing Fittings for EFM on Page 16/17

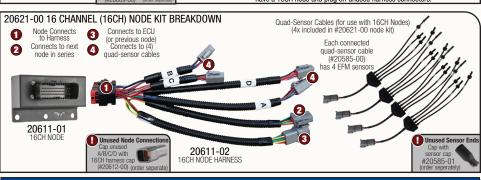












Building Plan for your Electronic Flow Monitoring System

- As equipment & implements vary greatly, this is a simplified approach assuming the implement is fairly standard and evenly spread, with the manifold centrally located. In many cases, it is more cost effective to move manifolds from the wings of the implement to the center.
- 1 Order 1 ECU assembly per system. (#20603-00)

 - Add the # of outlets (including multiples for monitoring multiple products). **Divide the total # of outlets by 16.** Round up to nearest whole number. **Order that many 16CH Node kits.** (#20621-00) 4CH Node kits can also be effective for 'extra' outlets in systems as needed, but 16CH node kits are typically more cost effective.
- Order 1 EFM assembly kit (#20580-00) per outlet (incl. multiples for monitoring multiple products)
 Alternatively, order EFM manifold kits (#20631-00 to #20634-00) to fit your requirements for sections.
- Order 1 ORS Outlet (Page 16) & 1 ORS Check Valve (#20551-00) per EFM body. Order manifolds & plumbing components (& end caps) suited for the implement size
- [Optional if metering orifice req'd] Order orifice (Page 17) for each outlet, ensure proper metering orifice size for each product/rate. Use Tip Wizard online @ www.wilger.net or the free app, to ensure proper sizing.

For more information, start the conversation on building your EFM system with your Wilger dealer, and for more pictures/information, visit our website at: www.WILGER.NET

1x End Cap per manifold [2x if Tee'd] Extension harnesses if req'd 1x Android Tablet

1x ECU KIT per system

1x 16CH Node Kit per 16 outlets

1x Flowmeter (EFM) per outlet 1x ORS Outlet per outlet

1x ORS Check Valve per outlet 1x Inlet Feed or Tee per manifold

EFM VIDEO TUTORIALS - Setting up EFM App on Android Tablet

Make sure to take advantage of video tutorials on initial setup and planning of EFM system app on your Android Tablet. Videos on YOUTUBE, or accessible from www.WILGER.NET

FEATURED & NEW SPRAYER PARTS FOR 2021

New Combo-Jet Caps & Double-Down Adapters



New options for Double-Down spraying!

Ideal for High Volume Applications, Tough to reach targets, and making the most out of the nozzles you have on hand.





Highlight for PWM System Retrotting: Combo-Jet Nozzle Bodies for PWM

Considering retrofitting your sprayer to a PWM system?

Make sure you take a look at Combo-Jet nozzle bodies which can mount PWM solenoids, giving up to 3 nozzle swivel without the bulk. Available in Combo-Jet outlets or Square lug (Teejet/Hypro/etc).



M Compact
well Cost Effective
Universal left/right body
Fits tight boom frames
Bolt-Mount top hinge
for cable management



New Combo-Rate Pre-Assembled Manifolds for estate, yard & ATV sprayers

Need to replace your yard sprayer's control manifold? Building your own yard or ATV sprayer?

Combo-Rate manifolds are modular and can be expanded or modified with the ton of available Combo-Rate fittings. From pressure regulator valves, pressure gauges, to almost anything you can think of.





Super High-Flow Combo-Rate II (CRII) Nozzle Bodies

21/32" Inlet CRII Nozzle Bodies for 45% more Flow For sprayers that are applying high rates of liquid fertilizer or chemical, Combo-Rate high flow nozzle bodies will not leave you missing out. With the 21/32" Combo-Rate II Nozzle bodies,

Spray nearly 60 us gpa @ 15 mph with a single outlet (& more if stacked)



Left/Right Reversible
Use with any CR fittings
Stacking Body for
PWM + Non-PWM
spraying

Slotted Inlet drains debris

New Combo-Rate Top Take-Off Turrets

Newest Top Take-Off Turret is the most compact yet A compact turret that gives you the option all the options you need to keep things tight in your boom, with double-down spray options, with the same compatibility to any Combo-Rate nozzle bodies or fittings.





Quick Flange Sprayer Boom Fittings

Heavy Duty Boom Fittings that open up possibilities Easy recirculating boom plumbing fittings Compatibility with common 1" flange fittings & more New & Awesome boom fittings coming into 2021















For more information on new products, visit: www.wflger.net

Call your local Wilger Dealer, or: [Canada] 1 (833) 242-4121 [USA] 1 (877) 968-7695

NEW LIQUID FERTILIZER PARTS FOR 2021

New O-Ring Seal Fittings & Assemblies



New pre-assembled Flowmeter Manifolds

New Electronic Flowmeter manifolds with the straight check valve allow for easy ordering and builing of systems.

Simply replicate each section of the implement with manifolds of the same size. cap off the ends, add a hose feed, and away vou ao.

Manifolds are available in 1-4 Outlet versions.

Wilger Electronic Row-By-Row Flow Monitoring System

The Simple, Trustworthy, Row-by-Row Flow Monitoring System. Works like a charm!

40mlet Stackable Manfields



Simply enough, one of the highest compliments you can give farm equipment is "It works."

No fuss, no muss, it does the job it is supposed to do.

We are proud that for the last few years, applicators have had exactly that (and more) to say about the EFM system. The system worked when it was set up and ended up helping troubleshoot other equipment issues unrelated to the EFM system, saving unexpected downtime & costs.

With a customizeable app and interface based on user input, it will quickly pay itself off in value for the farm.

Simple menu and tools for setting up & customizing screens Starter Starter Yellow/red balls & lines show custom alarm% thresholds. 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 Liquid N Up to 3 different products/ Starter rates can be monitored on one EFM system at the same time. 2.755 TOTAL GAL / MIN Two Simplified Views: Single Product View -3 screens showing up to 72 rows Multi-Product View: 10 sections up to 24 rows /section is able to alarm even if app is operating in the background 2 3 POWERED BY AGTRON

The EFM sensors are now available for an after-market installation system, which uses an android tablet in the cab to monitor the flow of up to ten sections, and up to 3 products.

NEW Combo-Jet UR Series Sizes



We will have new sizes of the UR series (025 & 03). suitable for lower volume ultra-coarse spray for those spray applications that need it.

Check the Wilger website for the most recent charts and info as we release these tips in 2020.

U.S. Patent No. 10,603,681

Have Questions? We can help!

@WilgerParts You can ask Wilger questions directly by phone/email, @WilgerInc WILGER.net

by website email, Twitter, or The CombineForums. Wilger is here to help answer any questions relating to applications with any of Wilger products.

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Tip Wizard Updates

Tip Wizard has new features! ORS metering orifice calculator, Flow Indicator Ball Selector, and further improved Tip Wizard spray tip search.

Tip Wizard aims to lead the industry as the TIP WIZARD best spray tip calculator for broadcast applications.

WHERE TO BUY WILGER PRODUCT

To find a list of local dealers/retailers and distributors in your area, visit the WILGER.net 'WHERE TO BUY' page, to easily enter your address to find local Wilger product.

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Pricelist Corrections & Additions for 2021

PAGE 15: Addition - TWS Fitting Seal Adapter #25160-04 & #25160-V4 The square cut ring seal that is typically used for TWS seals has been added to page 15. @WilgerParts @WilgerInc

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