



Coverage Irrigation Sprinkler

Introduction:

We must use water correctly, to optimize the harvest as well as to maintain the structure of the soil to cultivate. This kind of irrigation is to reduce the water jet droplet in order to have a suitable one for the crop. For this, it is necessary a sprinkler which gives fine droplets of water. Its mission is to distribute homogeneously the water, avoiding unwanted water areas or too much water in a field. That means a controlled use and profitable use of water, reducing unnecessary costs.

Advantages:

- Possibility to use fertilizers or cure diseases with fertigation.
- Homogeneous use of water, only the desired quantity to reduce costs.
- No deterioration of the ground as there are no more puddles or landslide.
- It is the best way to struggle against frost.
- It allows the washing of toxic bacterial leaf layer of the crop.
- It can be used from one crop to another.

Recommended uses:

Useful in tropical fields like in coffee or cocoa crops, which are very sensitive to low temperatures. It is proven that it is efficient in field crops and industrial crops like sugar beet, tobacco and cotton) or legumes crops such as beans and lentils.

Characteristics of sprinklers:

We differentiate sprinkler according to the dispersion angle, flow delivered (low-medium-high), scope of the droplet, the pressure and also the characteristics of the crop. Made in plastic and /or brass.

Flow: quantity of water that a sprinkler throws(l/h)

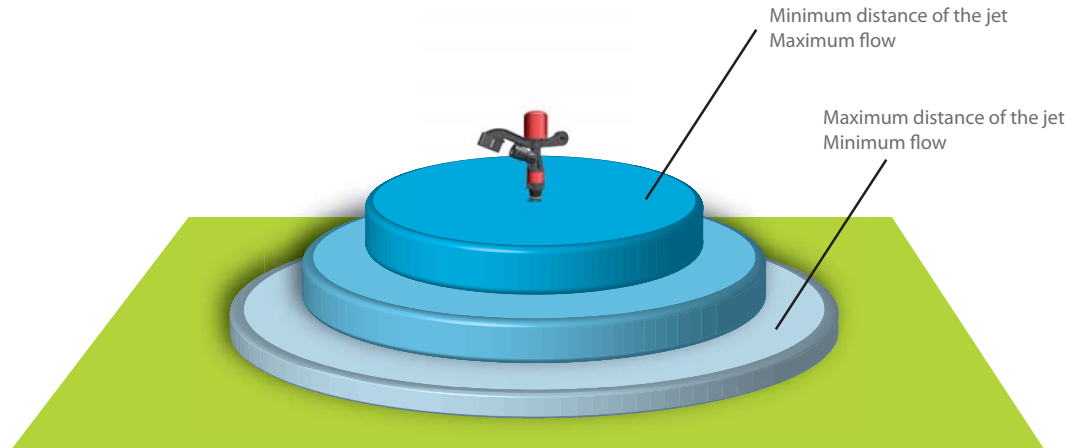
Water jet angle: the distance between the ground and the point from which water jet start flowing.

Scope: maximum extent of water distribution (m)

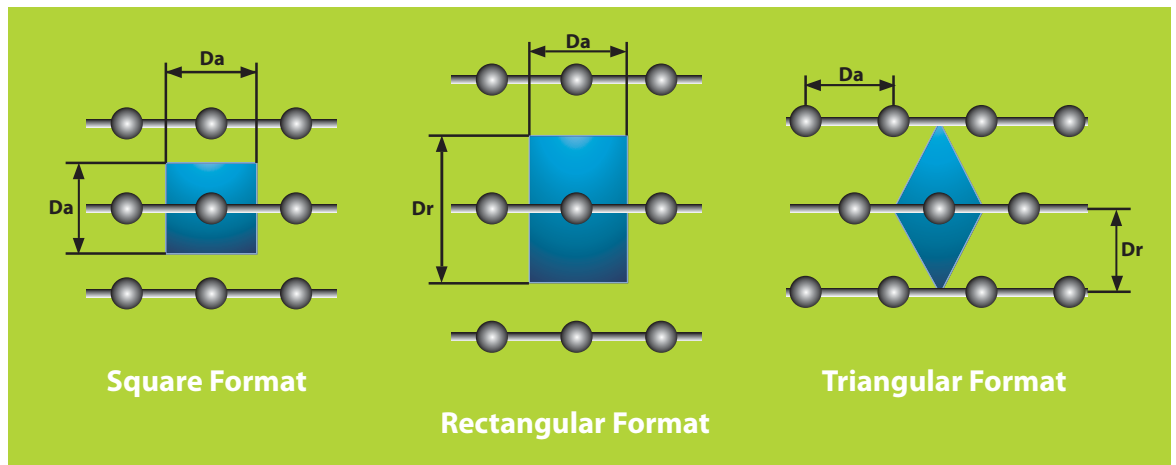
Pressure: pressure of the water jet (BAR, PSI)



Distribution of water in soils



Sprinkler Format



SPRINKLER IRRIGATED AREA
 DISTANCE BETWEEN THE SPRINKLER x DISTANCE BETWEEN PIPES = $Da \times Dr$

Maintenance

- **External Objects in the irrigation water:** Do not use wires to eliminate possible clogging.
- **Oil:** The sprinklers are lubricated with water, don't use any other element to lubricate.
- **Erroneous Pressure:** only use the pressure within the range of each sprinkler. Use of Pressure gauge recommended.

Unirain F30 - F30F

Full Circle Impact Sprinkler Low and Medium flow Brass



Application

Recommended for agricultural use, and medium flows, it is very suitable for removable pipe systems. It can be assembled with one or two nozzles. It is ideal for farmers, as it is a strong and durable product that reduces evaporation loss and wind effect thanks to its water jet throw radius. It can be assembled with female base thread in order to avoid waste of material.

Advantages

- Made of brass, its arm and body have a wide impact area that provides longer life.
- Its counterweighted arm provides a steady turn speed.
- It can be assembled with one or two nozzles.
- Three different vanes can be used to achieve the desired coverage and spray balance according to the available system pressure.

Technical specifications

- Full circle impact sprinkler
- 3/4" base thread male or female (F30F)
- Main and secondary nozzle
- 25° nozzle trajectory angle.
- Pressure range: 20-80 PSI
- Nozzle range: 9/64"-7/32"
- Body, arm and bearing assembly made of brass.
- Fulcrum pin and springs made of stainless steel.
- Color-coded anti abrasive acetal resin nozzles carved in millimetres and inches for a better identification (brass nozzles to be optionally assembled).
- Backturn lock between the sprinkler body and the bearing spring.



F30

F30F

	Pressure (psi)	Nozzles	Vanes
HIGH	60	3PRN 6 3FCN	30 V
MEDIUM	40	3PRN 6 3FCN	WITHOUT VANE
LOW	30	3PRN	30RV
VERY LOW	20	3PRN	30BV



F30	PRESSURE (PSI)	NOZZLES 9/64" + 3/32"		NOZZLES 5/32" + 3/32"		NOZZLES 11/64" + 3/32"		NOZZLES 3/16" + 3/32"		NOZZLES 3/16" + 1/8"		NOZZLES 13/64" + 1/8"		NOZZLES 7/32" + 1/8"	
		GPM	R(ft)	GPM	R(ft)	GPM	R(ft)	GPM (+)	R(ft)	GPM	R(ft)	GPM	R(ft)	GPM	R(ft)
TWO NOZZLES	20			4.31	39.4	4.96	40.0	5.66	40.7	6.65	40.7	7.47	41.0	8.33	41.3
	25	4.18	40.0	4.83	41.0	5.55	41.3	6.31	42.7	7.40	42.7	8.30	43.0	9.25	44.0
	30	4.58	40.4	5.27	42.7	6.07	44.0	6.93	45.6	8.15	45.6	9.15	46.9	10.20	47.9
	35	4.95	41.0	5.71	43.6	6.57	44.9	7.51	46.9	8.83	46.9	9.93	48.6	11.10	49.9
	40	5.29	41.3	6.11	44.0	7.03	45.9	8.03	47.9	9.46	47.9	10.65	49.6	11.90	50.9
	45	5.61	42.0	6.48	44.6	7.46	46.9	8.53	48.9	10.05	48.9	11.30	50.5	12.64	51.8
	50	5.91	42.7	6.82	44.9	7.87	47.6	9.00	49.9	10.60	49.9	11.90	51.5	13.34	53.1
	55	6.20	43.0	7.15	45.6	8.25	47.9	9.45	50.5	11.10	50.5	12.50	51.8	14.00	53.5
	60	6.48	43.6	7.47	45.9	8.60	48.6	9.86	50.9	11.60	50.9	13.00	52.5	14.50	54.4
	65	6.75	44.0	7.78	46.6	8.93	48.9	10.27	51.5	12.10	51.5	13.50	53.1	15.00	54.5
	70	7.00	44.6	8.08	46.9	9.25	49.5	10.66	51.8	12.50	51.8	14.00	53.5	15.45	55.1
75	7.25	44.9	8.37	47.6	9.56	49.9	11.02	52.5	12.90	52.5	14.40	54.1	15.90	55.4	
80	7.49	45.6	8.65	47.9	9.87	50.5	11.36	53.1	13.25	53.1	14.80	54.5	16.30	56.1	

F30P	PRESSURE (PSI)	NOZZLES 9/64"		NOZZLES 5/32"		NOZZLES 11/64"		NOZZLES 3/16"		NOZZLES 13/64"		NOZZLES 7/32"	
		GPM	R(ft)	GPM	R(ft)	GPM	R(ft)	GPM (+)	R(ft)	GPM	R(ft)	GPM	R(ft)
ONE NOZZLE AND PLUG	20			3.14	39.4	3.79	40.0	4.49	40.7	5.31	41.0	6.16	41.3
	25	2.88	40.0	3.52	41.0	4.24	41.3	5.00	42.7	5.90	43.0	6.85	44.0
	30	3.15	40.4	3.85	42.7	4.64	44.0	5.50	45.6	6.50	46.9	7.55	47.9
	35	3.40	41.0	4.16	43.6	5.02	44.9	5.96	46.9	7.05	48.6	8.20	49.9
	40	3.64	41.3	4.45	44.0	5.37	45.9	6.38	47.9	7.55	49.6	8.80	50.9
	45	3.86	42.0	4.72	44.6	5.70	46.9	6.78	48.9	8.00	50.5	9.35	51.8
	50	4.07	42.7	4.98	44.9	6.01	47.6	7.16	49.9	8.45	51.5	9.90	53.1
	55	4.27	43.0	5.22	45.6	6.30	47.9	7.52	50.5	8.85	51.8	10.40	53.5
	60	4.46	43.6	5.45	45.9	6.57	48.6	7.85	50.9	9.25	52.5	10.75	54.4
	65	4.65	44.0	5.68	46.6	6.83	48.9	8.18	51.5	9.60	53.1	11.10	54.5
	70	4.83	44.6	5.90	46.9	7.09	49.5	8.50	51.8	9.95	53.5	11.40	55.1
75	5.00	44.9	6.11	47.6	7.34	49.9	8.80	52.5	10.25	54.1	11.70	55.4	
80	5.17	45.6	6.30	47.9	7.58	50.5	9.09	53.1	10.50	54.5	12.00	56.1	

F30V	PRESSURE (PSI)	NOZZLES 9/64" + 3/32"		NOZZLES 5/32" + 3/32"		NOZZLES 11/64" + 3/32"		NOZZLES 3/16" + 3/32"		NOZZLES 3/16" + 1/8"		NOZZLES 13/64" + 1/8"		NOZZLES 7/32" + 1/8"	
		GPM	R(ft)	GPM	R(ft)	GPM	R(ft)	GPM (+)	R(ft)	GPM	R(ft)	GPM	R(ft)	GPM	R(ft)
TWO NOZZLES AND VANE TO HIGH RANGE	35	4.95	44.3	5.71	46.3	6.57	47.6	7.51	49.5	8.83	49.5	9.93	51.5	11.10	52.5
	40	5.29	45.6	6.11	46.9	7.03	47.9	8.03	50.5	9.46	50.5	10.65	52.5	11.90	53.1
	45	5.61	45.9	6.48	47.9	7.46	48.9	8.53	51.8	10.05	51.8	11.30	53.1	12.64	54.1
	50	5.91	46.6	6.82	48.9	7.87	49.9	9.00	53.1	10.60	53.1	11.90	53.5	13.34	55.1
	55	6.20	46.9	7.15	50.2	8.25	50.9	9.45	54.1	11.10	54.1	12.50	54.1	14.00	56.1
	60	6.48	47.6	7.47	50.5	8.60	51.5	9.86	54.5	11.60	54.5	13.00	55.1	14.50	57.1
	65	6.75	47.9	7.78	50.9	8.93	51.8	10.27	55.1	12.10	55.1	13.50	56.1	15.00	58.1
	70	7.00	48.6	8.08	51.5	9.25	53.1	10.66	55.4	12.50	55.4	14.00	57.1	15.45	59.1
	75	7.25	48.9	8.37	51.8	9.56	54.1	11.02	56.1	12.90	56.1	14.40	58.1	15.90	60.0
	80	7.49	49.9	8.65	52.5	9.87	55.1	11.36	56.4	13.25	56.4	14.80	59.1	16.30	61.0

F30PV	PRESSURE (PSI)	NOZZLES 9/64"		NOZZLES 5/32"		NOZZLES 11/64"		NOZZLES 3/16"		NOZZLES 13/64"		NOZZLES 7/32"	
		GPM	R(ft)	GPM	R(ft)	GPM	R(ft)	GPM (+)	R(ft)	GPM	R(ft)	GPM	R(ft)
ONE NOZZLE, PLUG AND VANE TO HIGH RANGE	35	3.40	44.3	4.16	46.3	5.02	47.6	5.96	49.5	7.05	51.5	8.20	52.5
	40	3.64	45.6	4.45	46.9	5.37	47.9	6.38	50.5	7.55	52.5	8.80	53.1
	45	3.86	45.9	4.72	47.9	5.70	48.9	6.78	51.8	8.00	53.1	9.35	54.1
	50	4.07	46.6	4.98	48.9	6.01	49.9	7.16	53.1	8.45	53.5	9.90	55.1
	55	4.27	46.9	5.22	50.2	6.30	50.9	7.52	54.1	8.85	54.1	10.40	56.1
	60	4.46	47.6	5.45	50.5	6.57	51.5	7.85	54.5	9.25	55.1	10.75	57.1
	65	4.65	47.9	5.68	50.9	6.83	51.8	8.18	55.1	9.60	56.1	11.10	58.1
	70	4.83	48.6	5.90	51.5	7.09	53.1	8.50	55.4	9.95	57.1	11.40	59.1
	75	5.00	48.9	6.11	51.8	7.34	54.1	8.80	56.1	10.25	58.1	11.70	60.0
	80	5.17	49.9	6.30	52.5	7.58	55.1	9.09	56.4	10.50	59.1	12.00	61.0

Data obtained under ideal test conditions. It can be affected by wind, bad hydraulic conditions or other adverse factors.
Highest point of the jet above the nozzle: 2.8 m (using standard nozzle 5 / 32 "to 35.2 MCA)
Throw radius jets achieved with the 0.9m lift. Shaded areas not recommended.
(* Standard Nozzle.

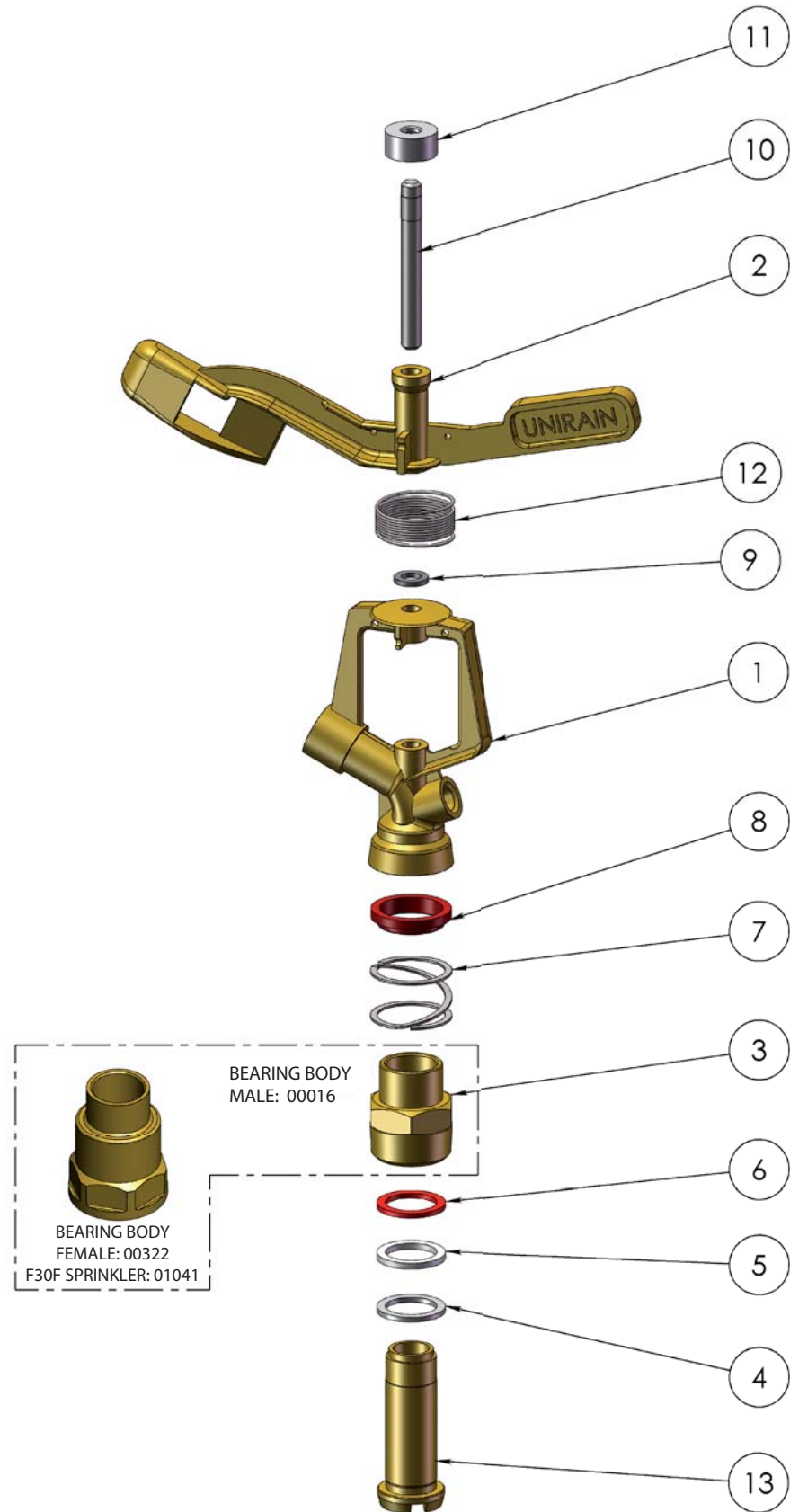
PSI: Pounds per Square Inch
GPM: Gallons Per Minute
R(ft): Throw Radius in feet

WARRANTY AND EXCLUSIONS

The manufacturer guarantees its products for direct customer against any defects in materials or manufacture for a period of two years from the original date of purchase, when the products have been used under normal operating conditions. The manufacturer assumes no responsibility for installation, removal or repairs carried out by unauthorised personnel. The manufacturer's liability under this warranty is limited to the replacement or repair of defective parts and the manufacturer does not accept responsibility for damages to crops or any other consequential damages deriving from defects in the products covered by this warranty.

THE PRESENT WARRANTY SUPERCEDES AND VOIDS ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSES OR ANY OTHER ATTRIBUTING LIABILITY TO THE MANUFACTURER.

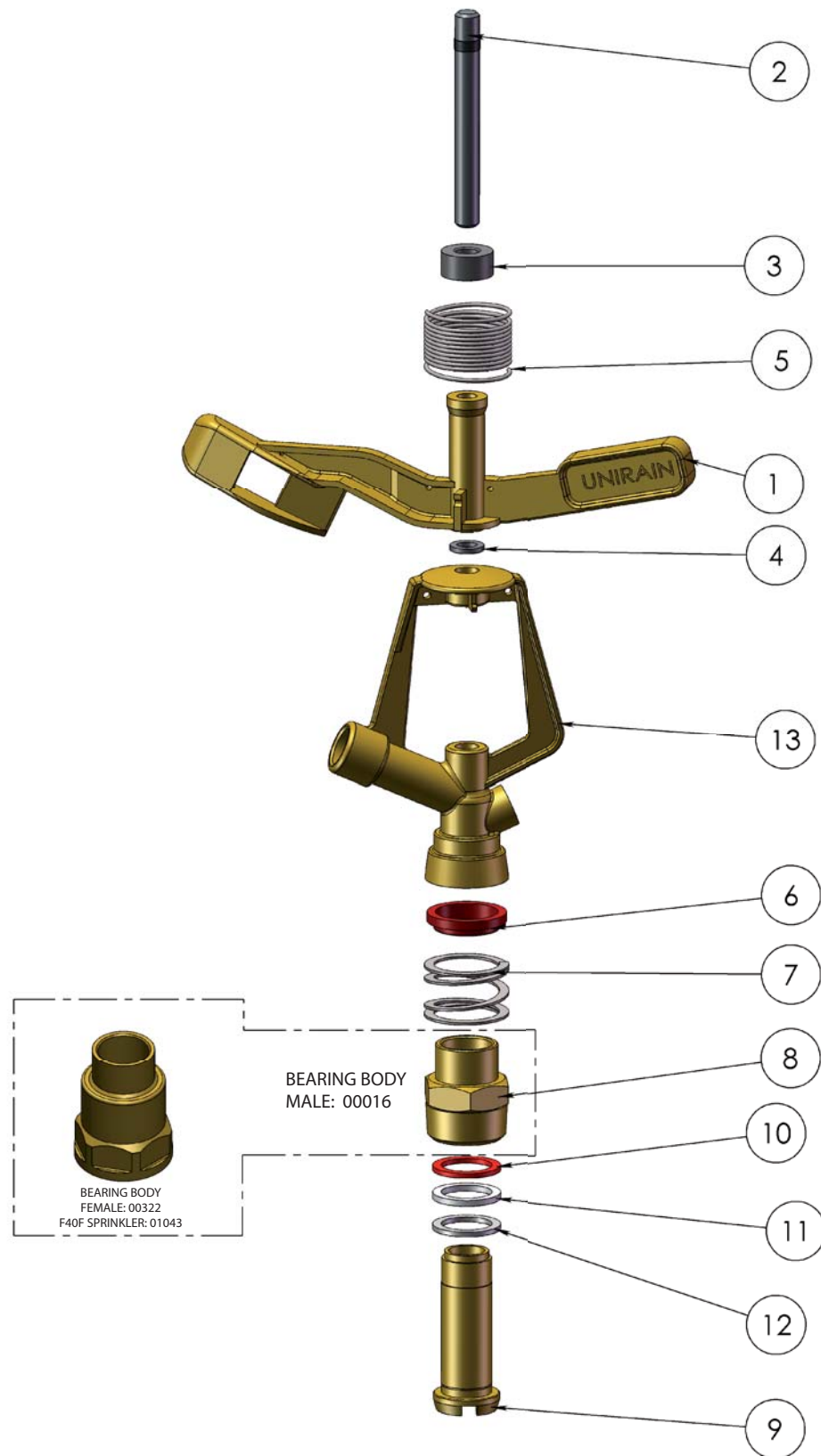
No agent, employee or representative of the manufacturer is authorised to void, alter or add to the conditions contained in this warranty, nor to take responsibility for, nor to make guarantees not specified herein.



COMPONENT NUMBER	PART NUMBER	DESCRIPTION	MATERIAL	QUANTITY
1	00031	F30 Sprinkler Body	Brass	1
2	00029	F30 Sprinkler Arm	Brass	1
3	00016	F30 Bearing Body	Brass	1
4	07459	Bearing Lower Washer	NBR	1
5	06736	Bearing Intermediate Washer	High Density PE	1
6	00252	Bearing Upper Washer	Anti Hydrolysis PU	1
7	00018	Bearing Spring	Stainless Steel	1
8	00255	Bearing Body Lock	High Density PE	1
9	06162	Arm Support Washer	NBR	1
10	06163	Arm Shaft	Stainless Steel	1
11	06161	Arm Hat	Low/Medium Density PE	1
12	06183	3/4" Series Arm Spring	Stainless Steel	1
13	00017	F30 Bearing Shaft	Brass	1

Notes

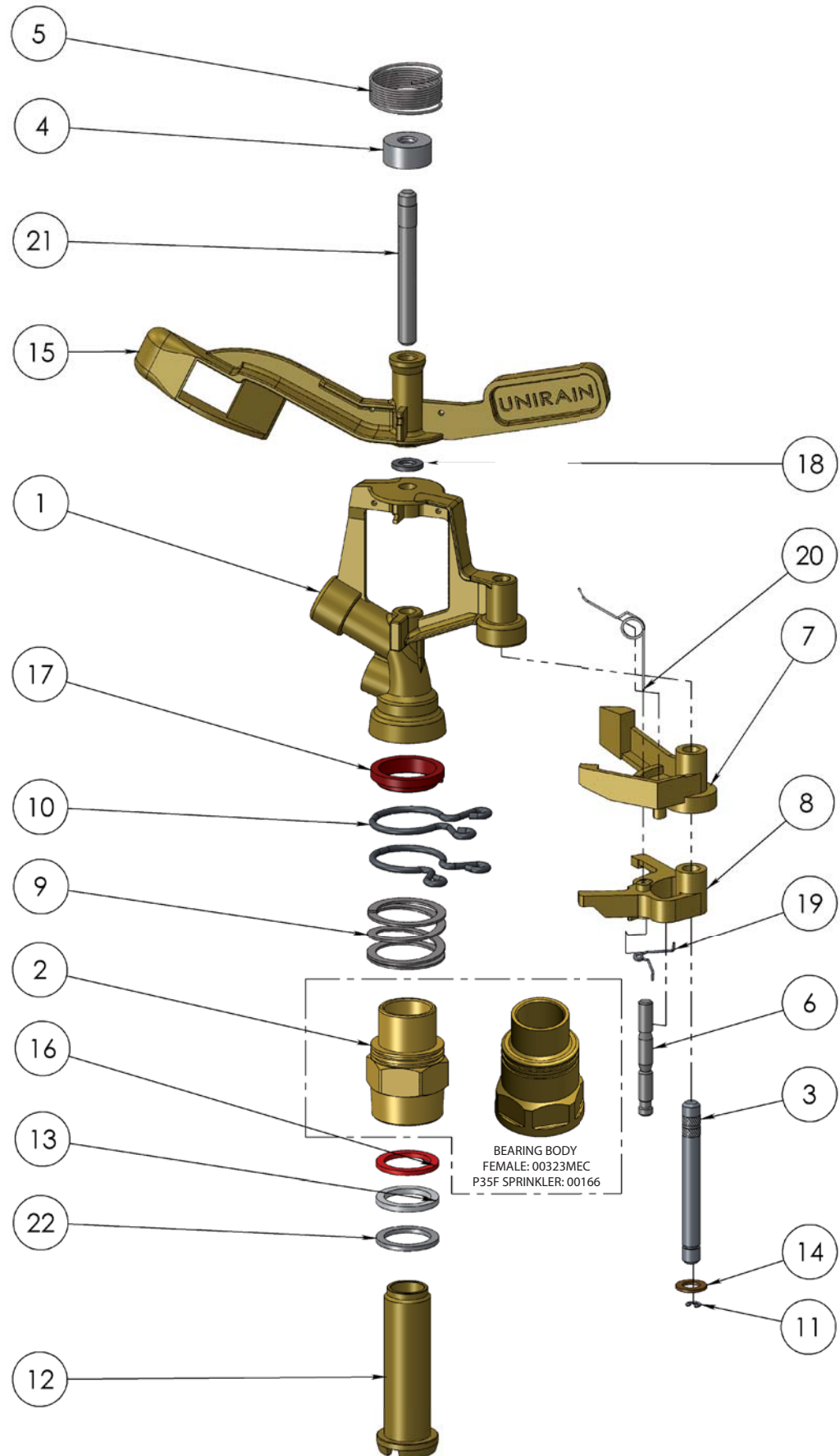
Process/Manufacturer UNIRAIN	Size A3	Material --	Code 00150
	Scale 1:2	Name F30 Sprinkler	
PRIVATE AND CONFIDENTIAL THE INFORMATION CONTAINED ON THIS PLAN IS FOR UNIRAIN USE ONLY. FORBIDDEN CHANGE OR AMENDMENT OF VALUES OF THE PLAN WITHOUT A CONSENT IN WRITING.		15/05/09 E.G.B.	unirain IRRIGATION PRODUCTS



COMPONENT NUMBER	PART NUMBER	DESCRIPTION	MATERIAL	QUANTITY
1	00036	F40 Sprinkler Arm	Brass	1
2	06496	Arm Shaft	Stainless Steel	1
3	06494	Arm Hat	PE	1
4	06162	Arm Support Washer	NBR	1
5	06493	F40 Arm Spring	Satinless Steel.	1
6	00255	Bearing Body Lock	High Density PE	1
7	06151	Bearing Spring	Stainless Steel.	1
8	00016	F40 Bearing Body	Brass	1
9	00017	F40 Bearing Shaft	Brass	1
10	00252	Bearing Upper Washer	Anti Hydrolysis PU	1
11	06736	Bearing Intermediate Washer	High Density PE	1
12	07459	Bearing Lower Washer	NBR	1
13	00034	F40 Sprinkler Body	Brass	1

Notes

Process/Manufacturer Unirain	Size A3	Material	Code 00151
ASSEMBLY	Scale 1:2	Name F40 Sprinkler	
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COMPONENT NUMBER	PART NUMBER	DESCRIPTION	MATERIAL	QUANTITY
1	00813	P35 Sprinkler Body	Brass	1
2	06150	F35 Bearing Body	Brass	1
3	00817	Cams Shaft	Stainless Steel	1
4	06161	Arm Hat	PE	1
5	06183	3/4" Series Arm Spring	Stainless Steel	1
6	00816	P35 Inverter Shaft	Stainless Steel	1
7	00819	P35 Upper Cam	Brass	1
8	00821	P35 Lower Cam	Brass	1
9	06151	Bearing Spring	Stainless Steel	1
10	00815	Inverter Limit Spring	Stainless Steel	2
11	00824	Seal Clip	Stainless Steel	1
12	06147	Bearing Shaft	Brass	1
13	06736	Bearing Intermediate Washer	High Density PE	1
14	00822	Cams Washer	Brass	1
15	00811	P35 Sprinkler Arm	Brass	1
16	00252	Bearing Upper Washer	Anti Hydrolysis PU	1
17	00255	Bearing Body Lock	High Density PE	1
18	06162	Arm Support Washer	NBR	1
19	00823	Inverter Shaft Spring	Stainless Steel	1
20	01687	Inverter Spring	Stainless Steel	1
21	06163	Arm Shaft	Stainless Steel	1
22	07459	Bearing Lower Washer	NBR	1

Process/Manufacturer UNIRAIN	Size A3	Material	Code 00165
	Scale 1:2	Name P35 Sprinkler	
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	E.G.B.		

Unirain F26 - F26W

Full Circle Impact Sprinkler Low and Medium flow Plastic



Application

Full circle impact sprinkler. Output water jet : 23°. Very suitable for for low (F26W) and medium flow (F26), for low growing crops, minimize evaporation losses and wind effect. The F26 model is also recommended for frost-proof irrigation thanks to its configuration and quality of materials. The F26W model is not recommended for frost-proof irrigation.

Sturdy in design, it features significant improvements, notably its durability and its protected bearing sleeve thread, eliminating the possibility of breakage after impact.

Its bearing sleeve thread is protected against breakage after impacts.

The protection of springs reduces the negative effects of ice.

Advantages

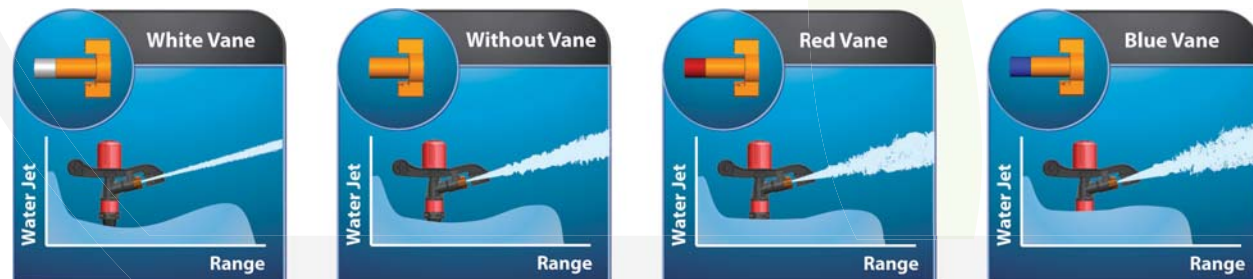
- Sturdy design. Protection cap for shock, dirt and ice.
- Due to an innovative system, the crown that holds the arm spring allows tension variation to adjust the sprinkler to extreme pressure or flow conditions.
- Bearing spring protector guided by the bearing to grant a correct sliding of the sprinkler body on the protector itself.
- Thanks to their bayonet coupling system, it is easy to change and clean the 3Q nozzles.
- Three different vanes can be used to achieve the desired coverage and pulverisation balance according to the available system pressure.

Technical specifications

- Full circle impact sprinkler.
- Frost protection irrigation (F26W not recommended).
- 1/2" Male base threaded.
- 23° Nozzle trajectory angle.
- Pressure range: 15-60 PSI.
- Nozzle range: 5/64"-9/64".
- High-resistance thermoplastics protected against UV radiation, and stainless steel.
- Color-coded anti abrasive acetal resin nozzles carved in millimetres and inches for a better identification.
- F26W (low pressure model)



Typical curves of range and distribution of water depending of the model of vane used



Units Conversion	
FLOW	PRESSURE
m ³ / h (metro cúbico por hora)	mca (metro de columna de agua)
l / h (litro por hora)	PSI (Pounds per Square Inch)
GPM (Gallons per Minute)	kg / cm ² (Kilogramo por centimetro cuadrado)
CFM (Cubic Feet per Minute)	
1 CFM = 1.699 m³ / h	1 PSI = 0.70307 mca
1 GPM = 227.1192 l / h	1 kg / cm² = 14,22 PSI

F26	PRESSURE (PSI)	NOZZLE 7/64"					NOZZLE 1/8"					NOZZLE 9/64"				
		Throw radius depending on vane (ft)					Throw radius depending on vane (ft)					Throw radius depending on vane (ft)				
		GPM	30V	without	30RV	30BV	GPM	30V	without	30RV	30BV	GPM	30V	without	30RV	30BV
ONE NOZZLE AND VANE TO HIGH RANGE	15	1.35	33.8	30.8	29.9	28.2	0.67	34.4	30.8	30.2	27.9	2.65	33.8	30.8	29.9	28.2
	20	1.56	36.7	32.8	32.2	29.9	0.78	37.7	32.8	32.2	29.5	3.06	36.7	32.8	32.2	29.9
	25	1.75	38.7	34.4	33.8	31.2	0.88	40.0	34.4	33.8	30.5	3.43	38.7	34.4	33.8	31.2
	30	1.92	40.0	35.4	35.1	32.2	0.96	41.7	35.8	35.1	31.5	3.76	40.0	35.4	35.1	32.2
	35	2.07	41.0	36.4	35.8	32.8	1.04	42.7	36.4	35.8	32.2	4.07	41.0	36.4	35.8	32.8
	40	2.22	42.0	37.1	36.7	33.5	1.11	44.0	37.4	36.7	32.8	4.36	42.0	37.1	36.7	33.5
	45	2.35	42.7	37.4	37.1	33.8	1.18	44.6	37.7	37.1	33.1	4.63	42.7	37.4	37.1	33.8
	50	2.48	43.3	37.7	37.4	34.1	1.25	45.3	38.4	37.1	33.5	4.88	43.3	37.7	37.4	34.1
	55	2.60	43.6	38.4	38.1	34.4	1.31	45.9	38.7	38.1	33.8	5.12	43.6	38.4	38.1	34.4
	60	2.72	44.3	38.7	38.4	34.8	1.37	46.6	39.4	38.7	34.1	5.35	44.3	38.7	38.4	34.8

F26W	PRESSURE (PSI)	NOZZLE 5/64"					NOZZLE 3/32"				
		Throw radius depending on vane (ft)					Throw radius depending on vane (ft)				
		GPM	30V	without	30RV	30BV	GPM	30V	without	30RV	30BV
ONE NOZZLE AND VANE TO HIGH RANGE	15	0.67					1.00	33.1	30.8	29.5	28.2
	20	0.78	35.4	32.8	31.8	30.8	1.15	36.1	32.8	31.8	30.5
	25	0.88	37.1	34.1	33.1	32.2	1.29	38.1	34.5	33.5	32.2
	30	0.96	38.4	35.1	34.4	32.8	1.41	39.4	35.4	34.8	32.8
	35	1.04	39.0	35.8	35.1	33.5	1.53	40.4	36.1	35.8	33.5
	40	1.11	39.7	36.4	35.8	34.1	1.63	41.0	36.7	36.4	34.1
	45	1.18	40.4	36.7	36.1	34.4	1.73	41.3	37.1	36.7	34.4
	50	1.25					1.83	41.7	37.4	37.1	34.5
	55	1.31					1.92	42.0	37.7	37.7	34.8
	60	1.37					2.00				

Shaded areas not recommended to obtain a right distribution.

Throw distance obtained with sprinkler on a 2.95 ft lift.

Tested under ideal conditions. Results can be affected by wind, bad hydraulic conditions or any other adverse factors.

Three different kinds of vanes can be used to achieve the desired throw radius and pulverisation balance depending on the available system pressure. This Unirain exclusive system provides high uniformity.

- Vane 30V (white) It increases the sprinkler coverage radius to its maximum. To obtain a good grade of pulverisation, the system pressure must be high (60 PSI).
- Without vane Using the nozzle without any vane, the throw radius will be slightly reduced compared to the previous option, but it will improve the water distribution. Recommended for medium system pressures (40 PSI).
- Vane 30RV (Red) Its inner structure creates a slight rotation inside the nozzle, obtaining a good pulverisation grade, but reducing the throw distance. To be used under low pressure conditions (30 PSI).
- Vane 30BV (Blue) This combination will achieve the highest pulverisation grade, but will also provide the minimum coverage radius. It's used under extreme low pressures (20 PSI).

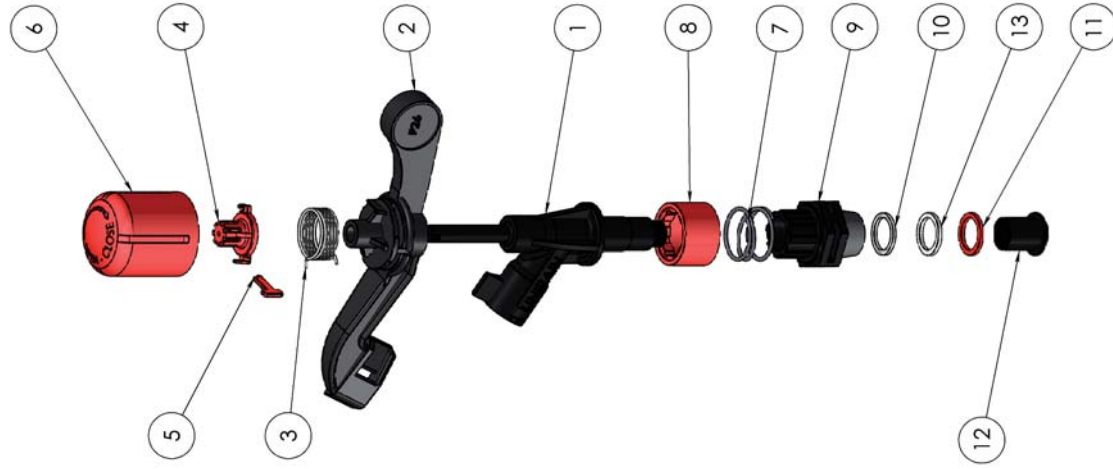
WARRANTY AND EXCLUSIONS


The manufacturer guarantees its products for direct customer against any defects in materials or manufacture for a period of two years from the original date of purchase, only when the products have been used under normal operating conditions. The manufacturer assumes no responsibility for installation, removal or repairs carried out by unauthorised personnel. The manufacturer's liability under this warranty is limited to the replacement or repair of defective parts and the manufacturer does not accept responsibility for damages to crops or any other consequential damages deriving from defects in the products covered by this warranty.

THE PRESENT WARRANTY SUPERCEDES AND VOIDS ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSES OR ANY OTHER ATTRIBUTING LIABILITY TO THE MANUFACTURER.

No agent, employee or representative of the manufacturer is authorised to void, alter or add to the conditions contained in this warranty, nor to take responsibility for, nor to make guarantees not specified herein.


COMPONENT NUMBER	CODE	DESCRIPTION	MATERIAL	QUANTITY
1	03001	Sprinkler Body F26	POM	1
2	03003	Sprinkler Arm F26	POM	1
3	03007	Spring Arm F26	Stainless Steel	1
4	03019	Castellated turnbuckle F26	POM	1
5	03027	Arm Pin F26	POM	1
6	03005	Arm Cap F26	POM	1
7	03011	1/2" Series Bearing Spring	Stainless Steel	1
8	03010	1/2" Series Bearing Body Lock	High Density PE	1
9	03012	Bearing Body F26	POM	1
10	03014	1/2" PE Bearing Washer	High Density PE	1
11	03013	1/2" Red PU Bearing Washer	Anti Hydrolysis PU	1
12	03016	Bearing Nut F26	POM	1
13	03018	1/2" PTFE Bearing Washer	PTFE	1



Process/Manufacturer	UNIRAIN	Size	A3	Material		Code	03901
		Scale		Name	F26 Sprinkler		
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COMPONENT NUMBER	CODE	DESCRIPTION	MATERIAL	QUANTITY
1	03002	Sprinkler Arm F26W	POM	1
2	03001	Sprinkler Body F26	POM	1
3	03005	Arm Cap F26	POM	1
4	03007	Spring Arm F26	Stainless Steel	1
5	03010	1/2" Series Bearing Body Lock	High Density PE	1
6	03011	1/2" Series Bearing Spring	Stainless Steel	1
7	03012	Bearing Body F26	POM	1
8	03016	F26 Bearing Nut F26	POM	1
9	03019	Castellated turnbuckle F26	POM	1
10	03024	Arm Triangle F26W	POM	1
11	03025	F26W Triangle clamp	POM	1
12	03027	Arm Pin F26	POM	1
13	03013	1/2" Red PU Bearing Washer	Anti Hydrolysis PU	1
14	03014	1/2" PE Bearing Washer	High Density PE	1
15	03015	1/2" NBR Bearing Washer	NBR	1



Process/Manufacturer	UNIRAIN	Size	A3	Material		Code	03900
		Scale		Name	F26W Sprinkler		
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Unirain F2614 - F2614W

Full Circle Impact Sprinkler Low and Medium flow Plastic



Application

Suitable for low and medium flow irrigation under trees.

Its lower jet radius doesn't directly reach foliage, avoiding fruit deterioration. Indicated also for nurseries and greenhouses.

Sturdy in design, it features significant improvements, notably its durability and its protected bearing sleeve thread, eliminating the possibility of breakage after impact.

Highly recommended for banana plantations for its angle of incidence, anti-UV treatment for exposed parts, protection of delicate parts and accessories, in particular the feed-tube. available in three formats and suitable for rapid installation anywhere.

Advantages

- Sturdy design. Protective cap against impact and dirt.
- Due to an innovative system, the crown that holds the arm spring allows tension variation to adjust the sprinkler performance to extreme pressure or flow conditions.
- Compression spring protector guided by the bearing to ensure correct sliding between the protector and the sprinkler body.
- Thanks to their bayonet coupling system, the nozzles are easy to change and clean.
- Three different types of water guide vane can be used to achieve the desired coverage and spray balance according to the available pressure.

Technical specifications

- Full circle impact sprinkler
- 1/2" male thread.
- 14° Nozzle trajectory angle
- Pressure range: 15-60 PSI
- Nozzle range: 5/64"-9/64"
- High-resistance thermoplastics protected against UV radiation, and stainless steel.
- Color-coded anti abrasive acetal resin nozzles carved in millimetres and inches for a better identification.
- F2614W (low pressure model)



Typical curves of range and distribution of water depending on the model of vane used



Units Conversion	
FLOW	PRESSURE
m ³ / h (metro cúbico por hora)	mca (metro de columna de agua)
l / h (litro por hora)	PSI (Pounds per Square Inch)
GPM (Gallons per Minute)	kg / cm ² (Kilogramo por centimetro cuadrado)
CFM (Cubic Feet per Minute)	
1 CFM = 1.699 m³ / h	1 PSI = 0.70307 mca
1 GPM = 227.1192 l / h	1 kg / cm² = 14,22 PSI

F2614	PRESSURE (PSI)	NOZZLE 7/64"					NOZZLE 1/8"					NOZZLE 9/64"				
		Throw radius depending on vane (ft)					Throw radius depending on vane (ft)					Throw radius depending on vane (ft)				
		GPM	30V	without	30RV	30BV	GPM	30V	without	30RV	30BV	GPM	30V	without	30RV	30BV
ONE NOZZLE AND VANE TO HIGH RANGE	15	1.35	28.5	26.2	25.3	24.0	1.75	29.2	26.2	25.6	23.6	2.19	30.2	27.2	26.2	23.6
	20	1.56	31.5	28.2	27.6	25.6	2.06	32.5	28.2	27.9	25.6	2.54	33.5	29.2	28.5	25.3
	25	1.75	33.8	30.2	29.5	27.2	2.27	35.1	30.2	29.5	26.6	2.84	36.4	30.8	30.5	26.6
	30	1.92	35.8	31.5	31.2	28.5	2.48	37.1	31.8	31.2	28.2	3.11	38.7	32.5	31.8	27.9
	35	2.07	37.1	32.8	32.5	29.5	2.68	38.7	32.8	32.5	29.2	3.40	40.7	33.8	33.1	28.9
	40	2.22	38.7	34.1	33.8	30.8	2.88	40.4	34.4	33.8	30.2	3.59	42.3	35.1	34.8	29.9
	45	2.35	39.7	34.8	34.4	31.5	3.05	41.7	35.1	34.4	30.8	3.81	43.3	35.8	35.1	30.2
	50	2.48	40.4	35.1	34.8	31.8	3.22	42.3	35.8	35.1	31.2	4.02	44.3	36.4	35.4	30.5
	55	2.60	41.0	36.1	35.8	32.5	3.38	43.3	36.1	36.1	31.8	4.22				
	60	2.72	42.0	36.7	36.4	33.1	3.53	44.3	37.4	36.7	32.5	4.41				

F2614W	PRESSURE (PSI)	NOZZLE 5/64"					NOZZLE 3/32"				
		Throw radius depending on vane (ft)					Throw radius depending on vane (ft)				
		GPM	30V	without	30RV	30BV	GPM	30V	without	30RV	30BV
ONE NOZZLE AND VANE TO HIGH RANGE	15	0.67					1.00	28.2	26.2	24.9	24.0
	20	0.78	30.2	27.9	27.2	26.2	1.15	30.8	28.2	27.2	26.2
	25	0.88	32.2	29.5	28.9	27.9	1.29	33.1	30.2	29.2	28.2
	30	0.96	33.8	31.2	30.5	28.9	1.41	35.1	31.5	30.8	29.2
	35	1.04	35.1	32.2	31.5	30.2	1.53	36.4	32.5	32.2	30.2
	40	1.11	36.1	33.1	32.5	31.2	1.63	37.7	33.8	33.5	31.2
	45	1.18	37.4	34.1	33.5	31.8	1.73	38.4	34.4	34.1	32.2
	50	1.25					1.83	39.4	35.4	35.1	32.5
	55	1.31					1.92	40.0	35.8	35.8	33.1
	60	1.37					2.00				

Shaded areas not recommended to obtain a correct distribution.

Throw distance obtained with sprinkler on a 9.25 ft lift.

Tested under ideal conditions. Results can be affected by wind, bad hydraulic conditions or any other adverse factors.

Every model of Unirain sprinkler allows using three different kinds of vanes to achieve the desired throw radius and pulverisation balance depending on the available system pressure. This system, exclusively provided by Unirain, allows obtaining high uniformity.

- Vane 30V (white) It increases the sprinkler coverage radius to its maximum. To obtain a good grade of pulverisation, the system pressure must be high (from 60 PSI).
- Without vane Using the nozzle without any vane, the throw radius will be slightly reduced compared to the previous option, but it will improve the water distribution. Recommended for medium system pressures (40 PSI).
- Vane 30RV (Red) Its inner structure creates a slight rotation inside the nozzle, obtaining a good pulverisation grade, but reducing the throw distance. To be used under low pressure conditions (30 PSI).
- Vane 30BV (Blue) This combination will achieve the highest pulverisation grade, but will also provide the minimum coverage radius. It's used under extreme low pressures (20 PSI).

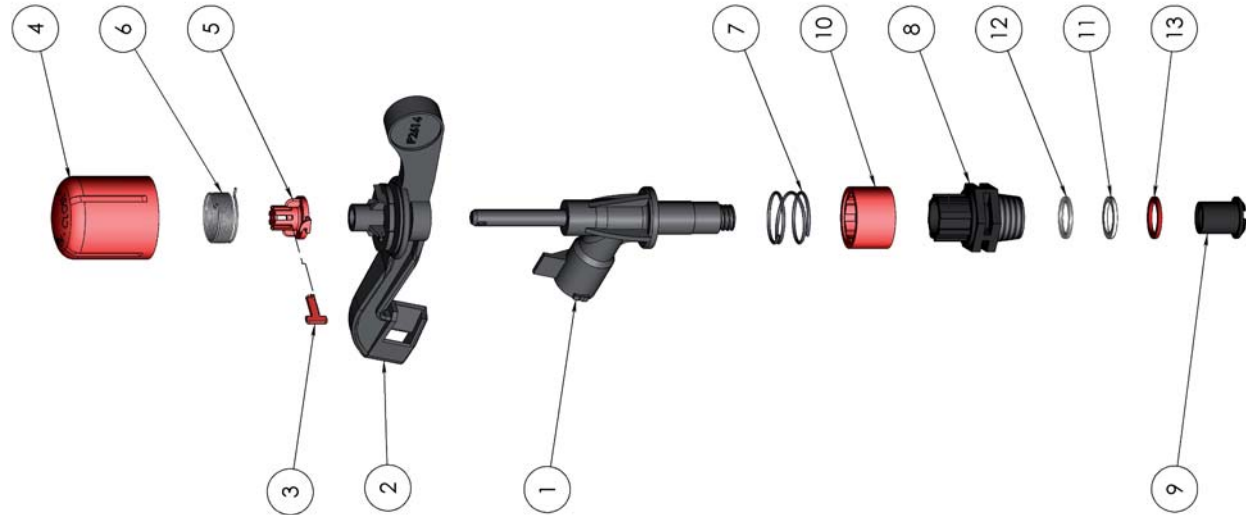
WARRANTY AND EXCLUSIONS

The manufacturer guarantees its products for direct customer against any defects in materials or manufacture for a period of two years from the original date of purchase, only when the products have been used under normal operating conditions. The manufacturer assumes no responsibility for installation, removal or repairs carried out by unauthorised personnel. The manufacturer's liability under this warranty is limited to the replacement or repair of defective parts and the manufacturer does not accept responsibility for damages to crops or any other consequential damages deriving from defects in the products covered by this warranty.

THE PRESENT WARRANTY SUPERCEDES AND VOIDS ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSES OR ANY OTHER ATTRIBUTING LIABILITY TO THE MANUFACTURER.

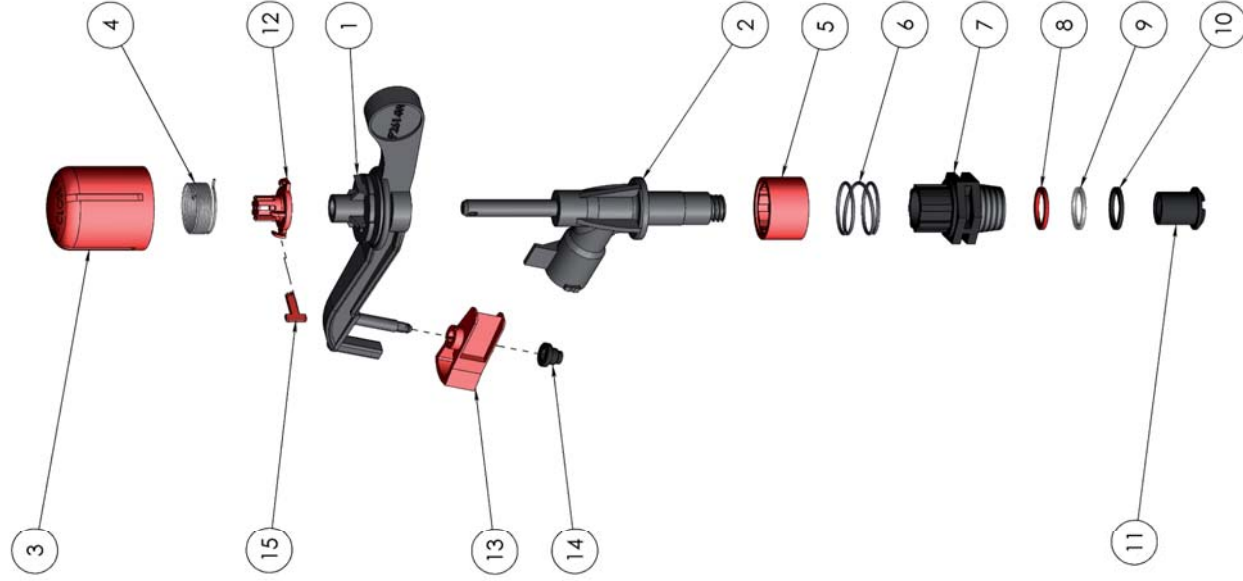
No agent, employee or representative of the manufacturer is authorised to void, alter or add to the conditions contained in this warranty, nor to take responsibility for, nor to make guarantees not specified herein.

COMPONENT NUMBER	CODE	DESCRIPTION	MATERIAL	QUANTITY
1	03020	Sprinkler Body F2614	POM + UV	1
2	03022	Sprinkler Arm F2614	POM + UV	1
3	03027	Arm Pin F2614	POM + UV	1
4	03005	Arm Cap F2614	POM + UV	1
5	03019	Castellated Turnbuckle	POM	1
6	03007	Spring Arm F2614	Stainless Steel	1
7	03011	Bearing Spring F2614	Stainless Steel	1
8	03012	Bearing Body F2614	POM + UV	1
9	03016	Bearing Nut F2614	POM + UV	1
10	03010	Bearing Body Lock	High Density PE	1
11	03018	1/2" PTFE Bearing Washer	PTFE	1
12	03014	1/2" PE Bearing Washer	High Density PE	1
13	03013	1/2" Red PU Bearing Washer	PU	1

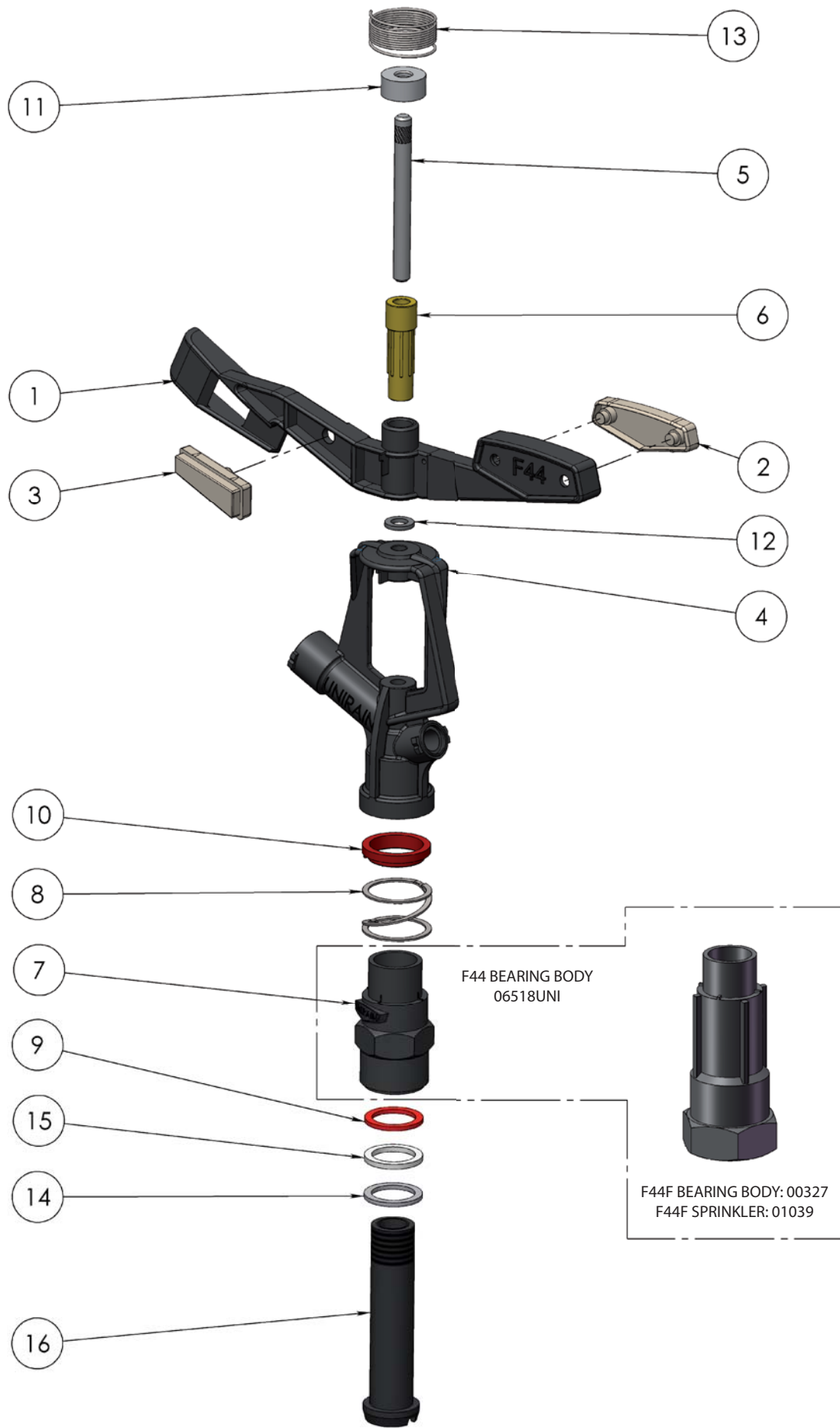


Process/Manufacturer UNIRAIN	Size A3	Material	Code 03904UNI
	Scale 26/06/09 E.G.B.	Name F2614 Sprinkler	
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COMPONENT NUMBER	CODE	DESCRIPTION	MATERIAL	QUANTITY
1	03021	Sprinkler Arm F2614W	POM + UV	1
2	03020	Sprinkler Body F2614	POM + UV	1
3	03005	Arm Cap F2614	POM + UV	1
4	03007	Spring Arm F2614	Stainless Steel	1
5	03010	1/2" Series Bearing Body Lock	High Density PE	1
6	03011	Bearing Spring F2614	Stainless Steel	1
7	03012	Bearing Body F2614	POM + UV	1
8	03013	1/2" Red PU Bearing Washer	PU	1
9	03014	1/2" PE Bearing Washer	High Density PE	1
10	03015	1/2" NBR Bearing Washer	NBR	1
11	03016	Bearing Nut F2614	POM	1
12	03019	Castellated Turnbuckle	POM + UV	1
13	03024	triangle F2614W	POM + UV	1
14	03025	triangular clamp	POM + UV	1
15	03027	Arm Pin F2614	POM + UV	1



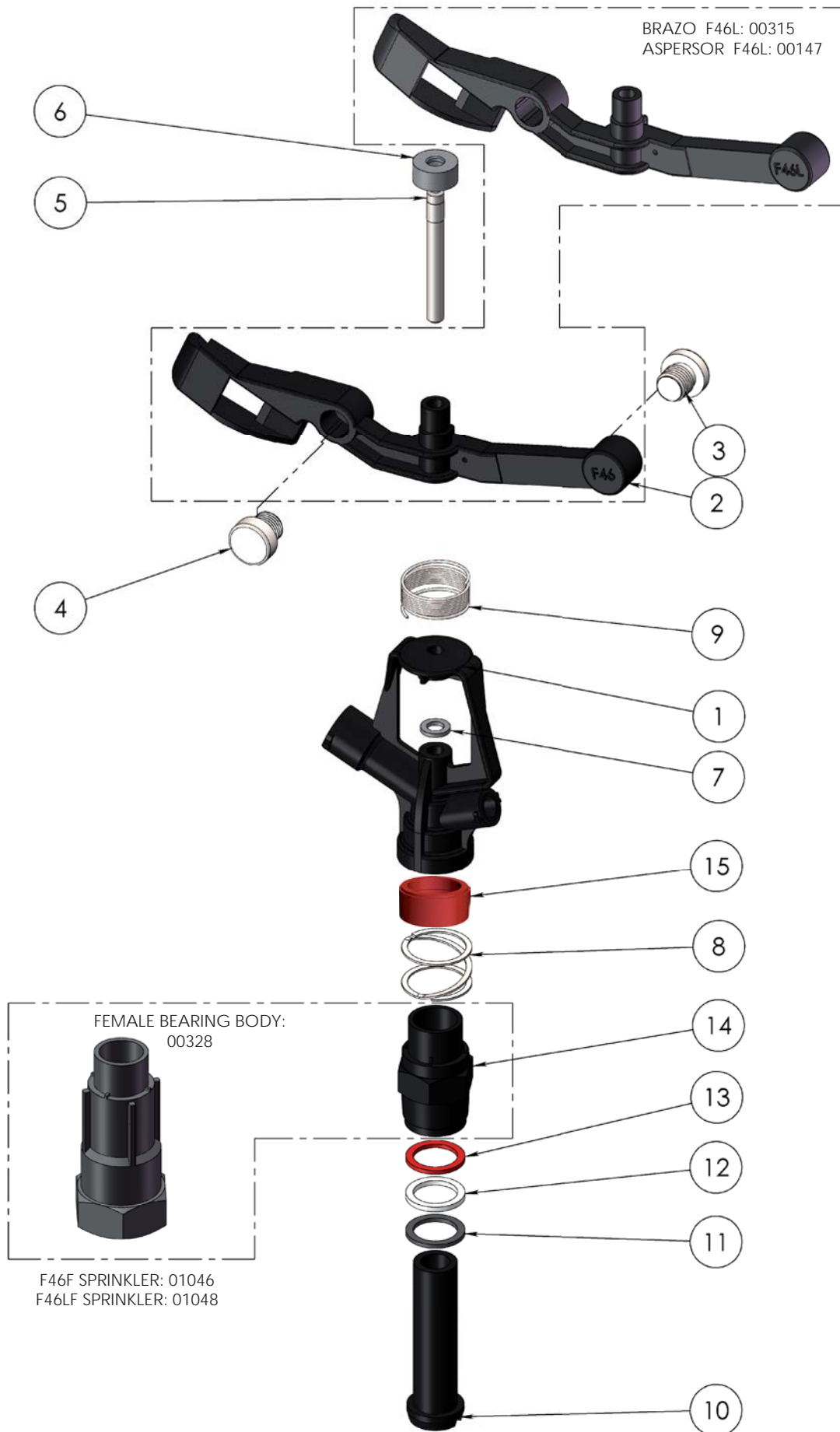
Process/Manufacturer UNIRAIN	Size A3	Material	Code 03903
	Scale 26/06/09 E.G.B.	Name F2614W Sprinkler	
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COMPONENT NUMBER	CODE	DESCRIPTION	MATERIAL	QUANTITY
1	06514	Swing Arm F44	PA6 + Fiber Glass	1
2	06516UNI	Unirain Back Counterweight	ZAMAK	1
3	06515	Front Counterweight	ZAMAK	1
4	06513UNI	Sprinkler Body F44	POM	1
5	06519	Swing Arm Pin	Stainless Steel	1
6	06636	Swing Arm Bearing	POM	1
7	06518UNI	Bearing body F44	POM	1
8	00018	Bearing Spring	Stainless Steel	1
9	00252	Bearing Upper Washer	Anti Hydrolisis PU	1
10	00255	Bearing Body Lock	Anti Hydrolisis PU	1
11	06161	Swing Arm Cap	PE	1
12	06162	Swing Arm Support Washer	NBR	1
13	06183	Arm Spring Series 3/4"	Stainless Steel	1
14	07459	Bearing Lower Washer	NBR	1
15	06736	Bearing Intermediate Washer	High Density PE	1
16	06517	Bearing Pin P45 / F44	POM	1


Notes

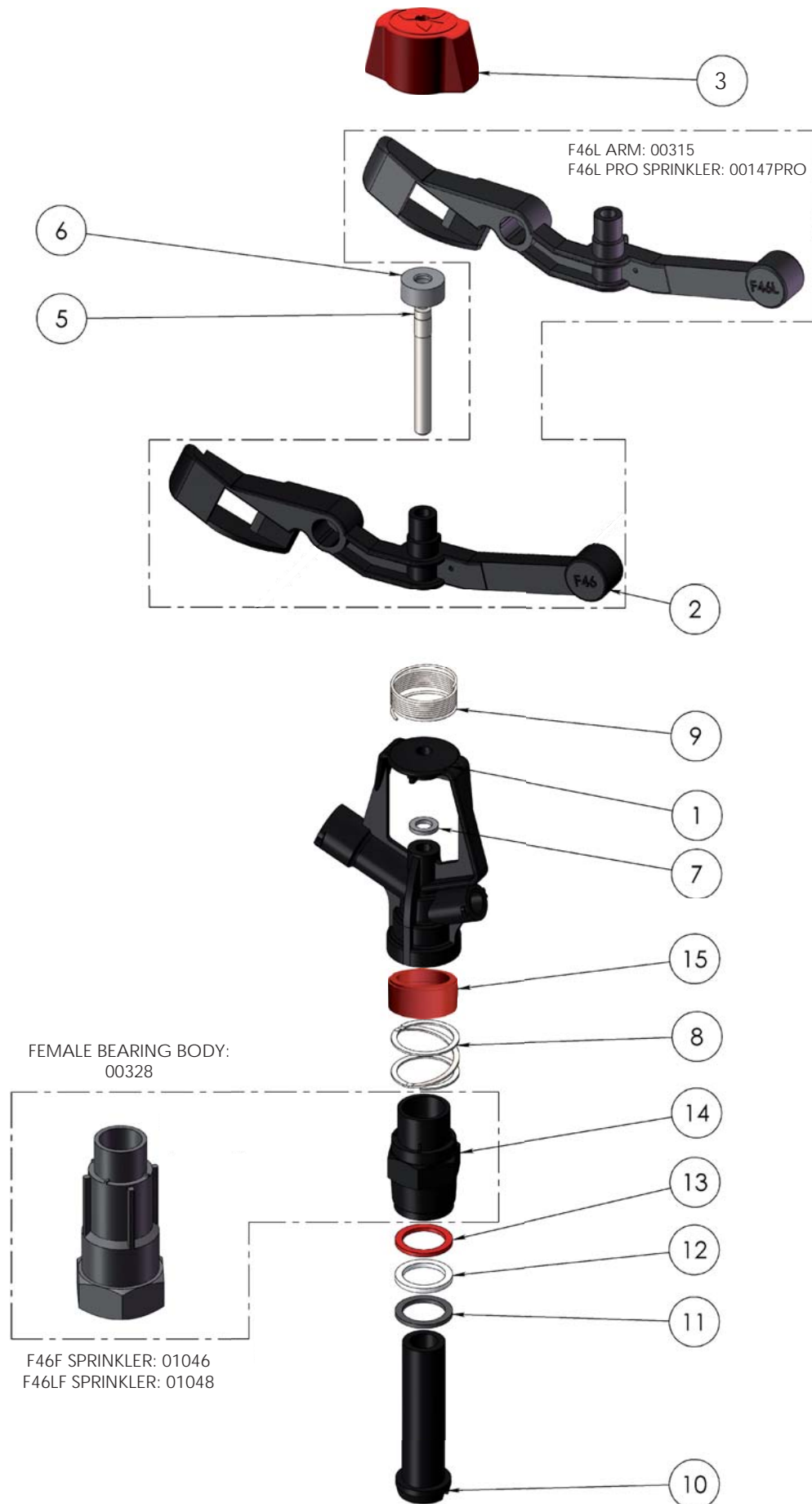
Process/Manufacturer UNIRAIN	Size A3	Material	Code 00094UNI
	Scale 1:2	Name UNIRAIN F44 Sprinkler	
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	E.G.B		



COMPONENT NUMBER	CODE	DESCRIPTION	MATERIAL	QUANTITY
1	00310	F46 Sprinkler Body	POM	1
2	00311	F46 Sprinkler Arm	POM	1
3	00316	Back Counterweight	ZAMAK	1
4	00314	Front Counterweight	ZAMAK	1
5	06163	Fulcrum Pin	Stainless Steel	1
6	06161	Swing Arm Cap	PE	1
7	06162	Swing Arm Support Washer	NBR	1
8	00018	Bearing Spring	Stainless Steel	1
9	06183	3/4" Series Arm Spring	Stainless Steel	1
10	00313	Bearing Pin F46	POM	1
11	07459	Bearing Lower Washer	NBR	1
12	06736	Bearing Intermediate Washer	High Density PE	1
13	00252	Bearing Upper Washer	Anti Hydrolisis PU	1
14	00312	F46 Bearing Body	POM	1
15	00256	Bearing Body Lock	High Density PE	1


Notes

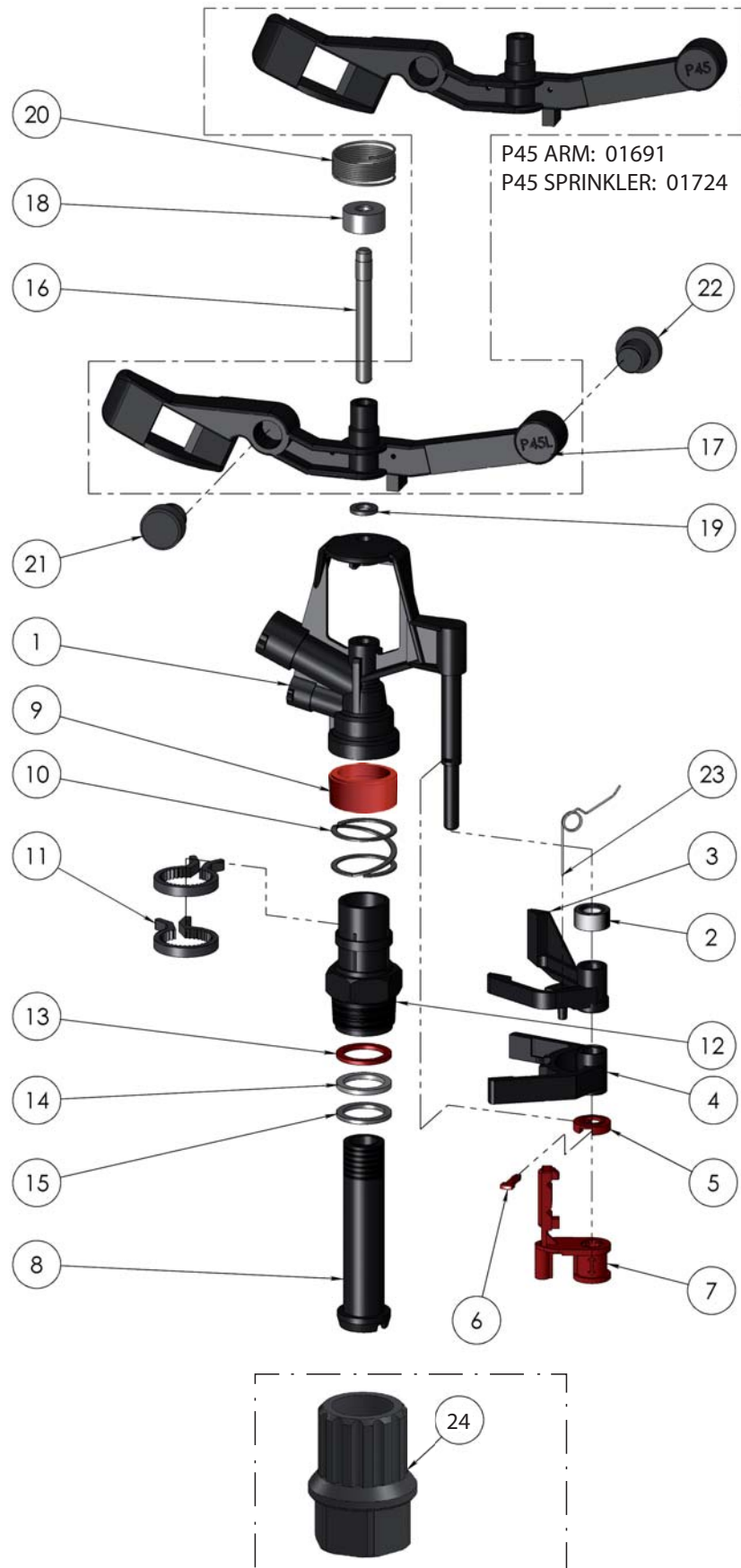
Process/Manufacturer Unirain	Size A3	Material	Code 00146
Assembly	Scale 1: 2	Name F46 Sprinkler	
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COMPONENT NUMBER	CODE	DESCRIPTION	MATERIAL	QUANTITY
1	00310	Sprinkler Body F46	POM	1
2	00311	Sprinkler Arm F46	POM	1
3	00318	Protective Cap	High Density PE	1
5	06163	Fulcrum Pin	Stainless Steel	1
6	06161	Swing Arm Cap	PE	1
7	06162	Swing Arm Support Washer	NBR	1
8	00018	Bearing Spring	Stainless Steel	1
9	06183	Arm Spring Series 3/4	Stainless Steel	1
10	00313	Bearing pin F46	POM	1
11	07459	Bearing Lower Washer	NBR	1
12	06736	Bearing Intermediate Washer	High Density PE	1
13	00252	Bearing Upper Washer	Anti Hydrolisis PU	1
14	00312	Bearing Body F46	POM	1
15	00256	Bearing Body Protective Cap	High Density PE	1


Notes

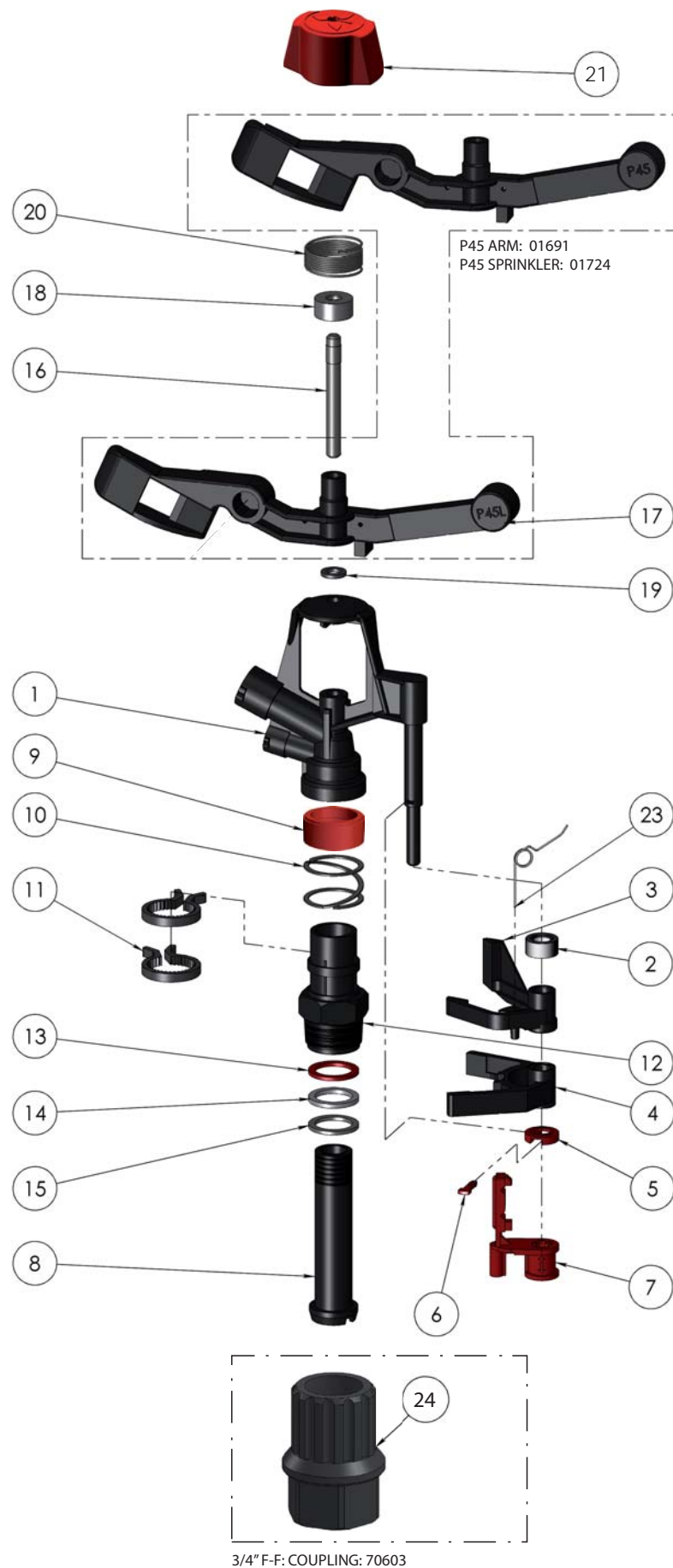
Process/Manufacturer Unirain	Size A3	Material	Code 00146PRO
Assembly	Scale 1:2	Name F46 Sprinkler	
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3/4" F-F COUPLING: 70603
P45LF SPRINKLER: 01378 / P45F SPRINKLER: 01379

COMPONENT NUMBER	CODE	DESCRIPTION	MATERIAL	QUANTITY
1	01681	Sprinkler Body P45	POM	1
2	01695	Reversing Cap	High Density PE	1
3	01685	Upper Yoke	POM	1
4	01686	Lower Yoke	POM	1
5	01688	Pin Washer	POM	1
6	01689	Pin	POM	1
7	01690	Inverter Latch	POM	1
8	06517	Bearing Pin P45 / F44	POM	1
9	00256	Bearing Body Lock	High Density PE	1
10	00018	Bearing Spring	Stainless Steel	1
11	01684	Cogged Sector	POM	2
12	01683	Bearing Body P45	POM	1
13	00252	Bearing Upper Washer	Anti Hydrolisis PU	1
14	06736	Bearing Intermediate Washer	High Density PE	1
15	07459	Bearing Lower Washer	NBR	1
16	06163	Fulcrum Pin	Stainless Steel	1
17	01692	Sprinkler Arm P45L	POM	1
18	06161	Swing Arm Cap	PE	1
19	06162	Arm Support Washer	NBR	1
20	06183	Series Arm Spring 3/4"	Stainless Steel	1
21	00314	Front Counterweight	ZAMAK	1
22	00316	Back Counterweight	ZAMAK	1
23	01687	Reversing Spring	Stainless Steel	1
24	70603	3/4" F-F Coupling	PA66 + Fiber glass	1

Process/Manufacturer UNIRAIN	Size A3	Material	Code 01725
	Scale 1:2	Name P45L Sprinkler	
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	E.G.B.		



COMPONENT NUMBER	CODE	DESCRIPTION	MATERIAL	QUANTITY
1	01681	Sprinkler Body P45	POM	1
2	01695	Reversing Cap	High Density PE	1
3	01685	Upper Yoke	POM	1
4	01686	Lower Yoke	POM	1
5	01688	Pin Washer	POM	1
6	01689	Pin	POM	1
7	01690	Reversing Latch	POM	1
8	06517	Bearing Pin P45 / F44	POM	1
9	00256	Protective Bearing Body Lock	High Density PE	1
10	00018	Bearing Spring	Stainless Steel	1
11	01684	Cogged Sector	POM	2
12	01683	Bearing Body P45	POM	1
13	00252	Bearing Upper Washer	Anti Hydrolisis PU	1
14	06736	Bearing Intermediate Washer	High Density PE	1
15	07459	Bearing Lower Washer	NBR	1
16	06163	Fulcrum Pin	Stainless Steel	1
17	01692	Sprinkler Arm P45L	POM	1
18	06161	Swing Arm Hat	PE	1
19	06162	Swing Arm Support Washer	NBR	1
20	06183	Series Arm Spring 3/4"	Stainless Steel	1
21	00318	Protective Cap	High Density PE	1
23	01687	Protective Spring	Stainless Steel	1
24	70603	3/4" F-F Coupling	PA66 + Fiber Glass	1

Process/Manufacturer UNIRAIN	Size A3	Material	Code 01725PRO
	Scale 1:2	Name P45/45L Sprinkler	
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	E.G.B.		