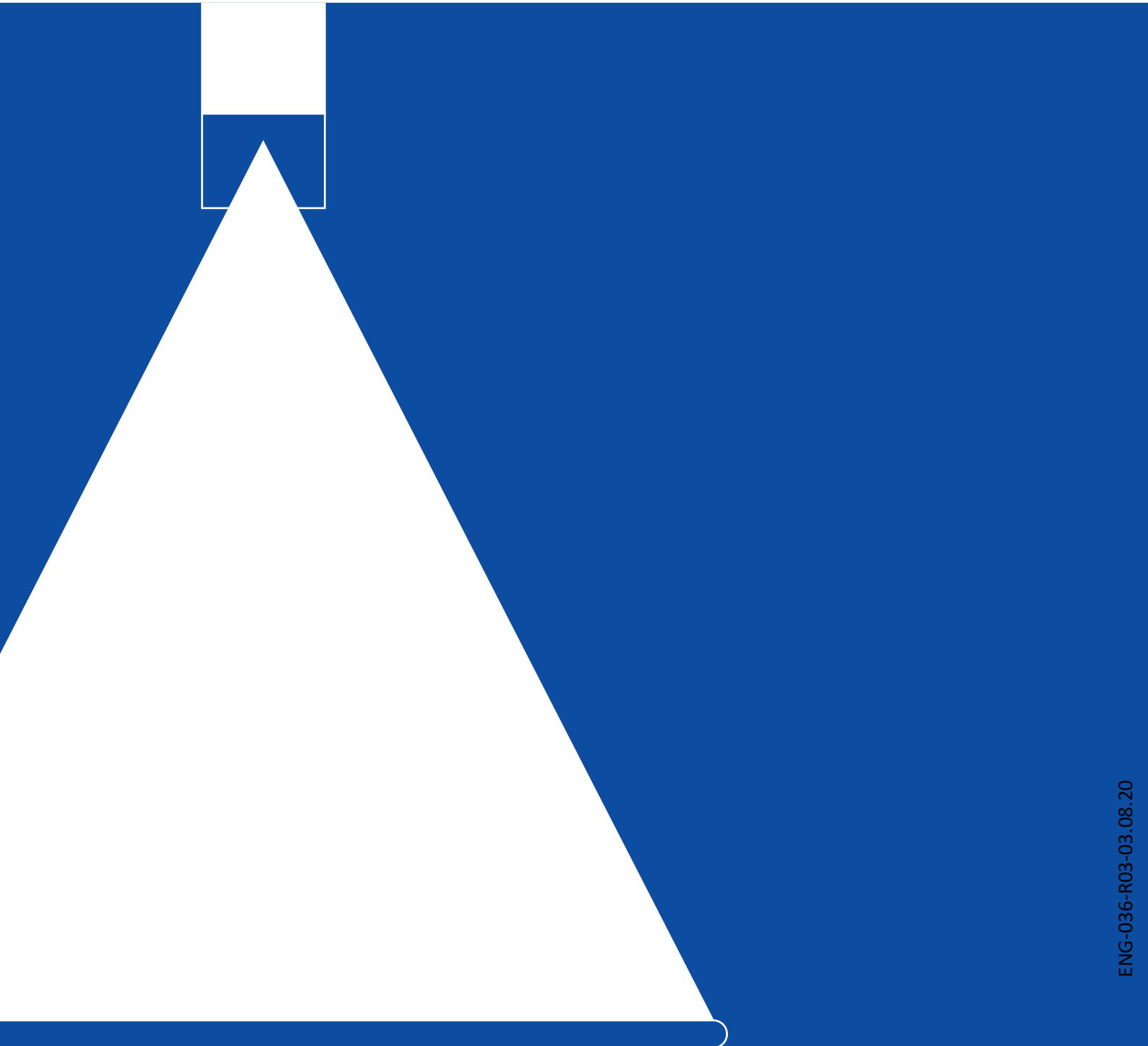


## CHAPTER 6

# ◆◆ Deflector Nozzles



# ◆ ABOUT US

We Are Here to Help

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## • Welcome to SPADFLOW

facing the **Challenges** of new industries and emerging markets.

## • Spray Technologies

with over **Thousands of Spray Nozzle Types** SPADFLOW has become Iran's leading producer.

## • From Design to Installation

with **Skilled** engineers and project managers, SPADFLOW is providing consultancy and support services.

## • Knowledge and Experience

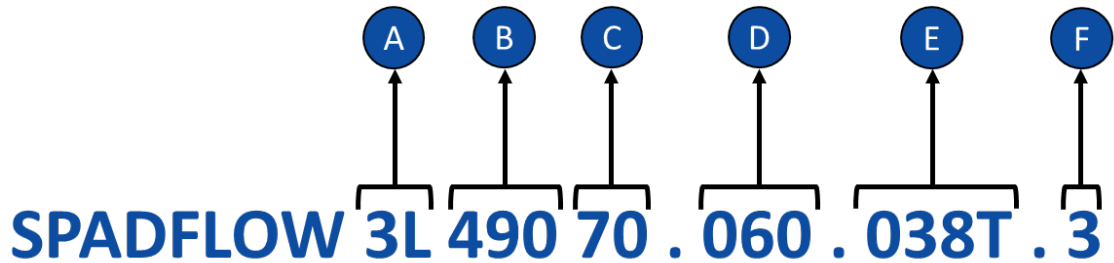
as an **Expert** on spray technology, SPADFLOW is at the forefront of production and innovation.





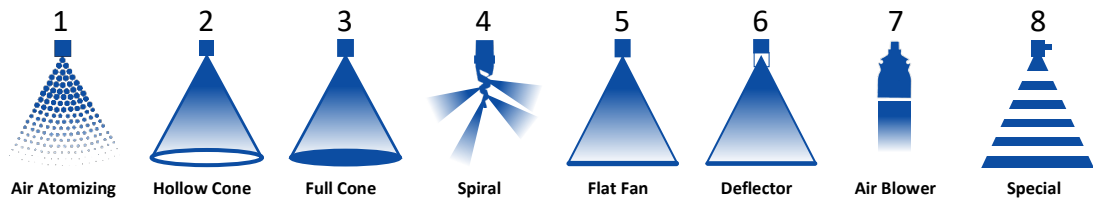
# PRODUCT NUMBERS

## Everything You Need to Know



### A

#### Nozzle Type (Spray Pattern)



### B

#### Nozzle Series

### C

#### Flow Rate Rank

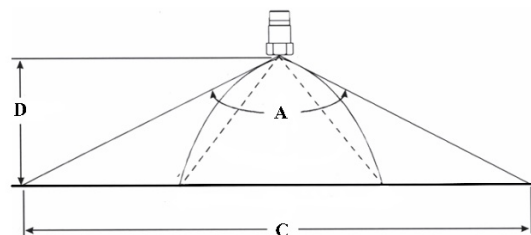
The flow rate rank is relative and depends on the respective nozzle type. The exact value is mentioned in tables on the product pages.

### D

#### Spray Angle

Theoretical spray angle is mentioned in tables on the product pages. Actual spray angle depends on installation and alignment.

- A = Theoretical Spray Angle
- D = Spray Distance
- C = theoretical Spray Coverage



# PRODUCT NUMBERS

## Everything You Need to Know

### E

#### Connection

1/8" to 4" connections. The exact specification is mentioned in tables on the product pages.

T = BSBT Thread Type Connection

P = BSPP Thread Type Connection

N = NPT Thread Type Connection

R = Retaining Nut

### F

#### Material

Material	Code	Material	Code
Brass	1	Polyvinylchloride	PVC
AISI 304/304L Stainless Steel	2	Polypropylene	PP
AISI 316/316L Stainless Steel	3	Polyamide	PA
AISI 310 Stainless Steel	4	Polyvinylidene fluoride	PVDF
AISI 321 Stainless Steel	5	Polytetrafluorethylene	PTFE
AISI 420 Stainless Steel	6	Polyoxymethylene	POM
Tungsten Carbide	TN	Nitrile Butadiene Rubber	NBR
Phosphor Bronze	CuSn	Polylactic Acid	PLA
Copper	Cu	Acrylonitrile Butadiene Styrene	ABS
Titanium	TI	Nylon Polyamide	PA6
Aluminum	AL	Polycarbonate	PC

#### Ø B (Equivalent Bore Diameter)

Applies to elliptical discharge holes of flat fan nozzles. A cylindrical hole with a diameter A has the same surface area as the ellipse.

#### Ø E (Narrowest Free Cross Section)

Important Characteristics for determining the pre-filtration of a nozzle. Can be less than a due to several swirl ducts.

Conversion Formula:  $K \text{ factor} \times \sqrt{P(\text{bar})} = Q \text{ (l/min)}$

All flow rate data in this catalogue is based on measurements with water,

Spray angle (α)	Code	Connection Size [inch]	Ø B [mm]	Ø E [mm]	Flow rate (Q) [l/min]						
					Pressure (P) [bar]						
					0.5	1.0	2.0	3.0	5.0	7.0	10.0
45°	3L 490 40 . 045	1/8"	1.25	1.25	0.57	0.76	1.00	1.18	1.44	1.65	1.90
	3L 490 60 . 045	1/4"	2.00	2.00	1.81	2.39	3.15	3.70	4.54	5.20	6.00
	3L 490 70 . 045	3/8"	2.65	2.65	3.22	4.24	5.60	6.59	8.08	9.24	10.66
	3L 490 78 . 045	1/2"	3.45	3.45	5.17	6.82	9.00	10.58	12.98	14.85	17.12
60°	3L 490 40 . 060	1/8"	1.15	1.15	0.57	0.76	1.00	1.18	1.44	1.65	1.90
	3L 490 80 . 060	3/8"	3.70	3.70	5.74	7.58	10.00	11.76	14.43	16.51	19.04
	3L 490 88 . 060	1/2"	4.65	4.65	9.19	12.13	16.00	18.82	23.08	26.41	30.46
	3L 490 96 . 060	3/4"	5.80	5.80	14.36	18.95	25.00	29.40	36.07	41.26	47.59
	3L 491 08 . 060	1"	8.15	8.15	28.72	37.89	50.00	58.80	72.14	82.53	95.18

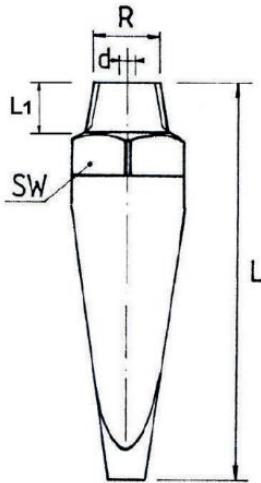
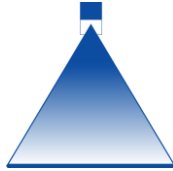
SPADFLOW spray nozzles are manufactured with the highest precision and undergo permanent quality checks. However, production-related tolerances can affect the spray angle, flow rate, droplet size and droplet distribution.



# SPADFLOW 6M LD

Square-Shape Deflector Nozzle

Webpage  
+ STP



G1	Thread Type			Weight
	BSPT	BSPP	NPT	
1/4"	014T	014P	014N	135 gr
3/8"	038T	038P	038N	150 g
1/2"	012T	012P	012N	170 gr
3/4"	034T	034P	034N	306g

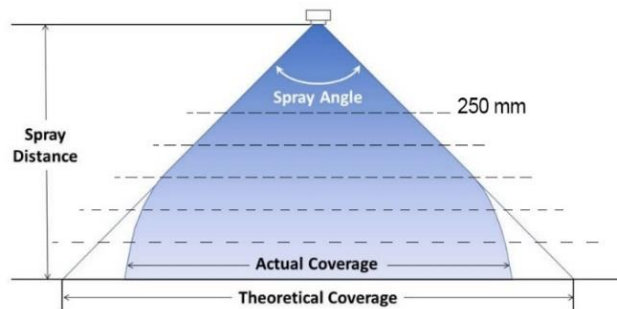
Material*	Code
Brass	1
S.S.304	2
S.S.316	3

\* Different materials are available upon request

### Properties:

- Square Section
- High Resistance to Physical Damage
- Sharp Flat-Fan Spray
- Not prone to clogging

$\alpha$	Spray coverage
	@ 250 mm
15°	65
25°	110
30°	130
40°	180
50°	230



Spray angle ( $\alpha$ )	Code	$\eta$	Connection** [Inch]	B $\varnothing$ [mm]	Flow rate [l/min]					Dimensions [mm]		
					P [bar]					L	L1	SW
					1.0 <i>K factor</i>	2.0	3.0	5.0	10.0			
15°	5M LD 10 . 015	22°	1/4"	2	2.3	3.3	3.8	5	7	48	10	16
	5M LD 20 . 015	19°	1/4"	2.8	4.5	6.5	7.5	10	15	54	10	16
	5M LD 30 . 015	25°	3/8"	3.2	7	10	11	15	22	72	10	20
	5M LD 40 . 015	19°	3/8"	3.5	9.5	13	15	20	29	92	10	20
	5M LD 50 . 015	15°	3/8"	4	12	16	19	25	37	91	10	20
	5M LD 60 . 015	14°	1/2"	4.6	13.5	19.2	23	30	43	125	13	25
	5M LD 80 . 015	14°	1/2"	5.3	18.1	26	31	40	57	130	13	25
	5M LD 100 . 015	14°	1/2"	6	23	33	39	50	73	137	13	25
	5M LD 200 . 015	14°	3/4"	8.4	45	64	78	101	143	191	15	30



# SPADFLOW 6M LD

## Square-Shape Deflector Nozzle

Webpage  
+ STP



Spray angle (α)	Code	η	Connection** [Inch]	B ∅ [mm]	Flow rate [l/min]					Dimensions [mm]		
					P [bar]					L	L1	SW
					1.0 <i>K factor</i>	2.0	3.0	5.0	10.0			
25°	5M LD 40 . 025	25°	1/4"	3.7	9	12.8	15.5	20	29	65	10	19
35°	5M LD 04 . 035	40°	1/8"	1.2	0.9	1.3	1.6	2	2.9	23	7	16
	5M LD 10 . 035	35°	1/4"	2	2.3	3.3	3.8	5	7	37	10	16
	5M LD 20 . 035	30°	1/4"-3/8"	2.6	4.5	6.4	7.8	10.1	14.3	42	10	20
	5M LD 25 . 035	28°	1/4"-3/8"	2.9	5.6	8	9.8	12.6	17.9	49	10	20
	5M LD 30 . 035	28°	3/8"	3.3	6.8	9.6	11.7	15.1	21	52	10	20
	5M LD 40 . 035	25°	3/8"	3.5	9.5	13	15	22	29	58	10	20
	5M LD 50 . 035	23°	3/8"	4	12	16	19	25	37	64	10	20
	5M LD 60 . 035	27°	1/2"	4.5	13.5	19.1	23	30	43	73	13	25
	5M LD 80 . 035	24°	1/2"	5.2	18	26	30	40	58	81	13	25
	5M LD 100 . 035	20°	1/2"	6	23	33	38	50	73	89	13	25
	5M LD 160 . 035	23°	3/4"	7.5	37	52	60	80	177	114	15	30
	5M LD 200 . 035	23°	3/4"	8.4	45	64	78	101	143	122	15	30
40°	5M LD 40 . 040	35°	3/8"	3.5	9.5	13	15	20	29	60	10	30
	5M LD 50 . 040	34°	3/8"	4	12	16	19	25	37	64	10	25
	5M LD 60 . 040	33°	3/8"	4.5	13.5	19.1	23	30	43	72	10	25
	5M LD 70 . 040	29°	3/8"	5	15.8	22	27	35	50	75	10	25
	5M LD 80 . 040	26°	3/8"	5.2	18	26	30	40	58	77	10	25
	5M LD 90 . 040	28°	3/8"	5.5	21	29	34	45	65	77	10	25
	5M LD 100 . 040	28°	3/8"	6	23	32	39	50	71	87	10	25
50°	5M LD 10 . 050	60°	1/4"	2	2.3	3.3	3.8	5	7	31	10	16
	5M LD 25 . 050	42°	1/4"-3/8"	2.9	5.6	8	9.8	12.6	17.9	42	10	20
	5M LD 40 . 050	45°	1/4"-3/8"	3.5	9	12.8	15.6	20	29	47	10	20
	5M LD 60 . 050	37°	3/8"	4.4	13.5	19.2	23	30	43	55	10	25
	5M LD 100 . 050	40°	3/8"	6	23	32	39	50	71	72	10	30
	5M LD 125 . 050	40°	3/8"	6.7	28	41	49	63	89	72	10	30
	5M LD 160 . 050	37°	3/8"	7.5	36	51	63	81	114	72	10	30
	5M LD 200 . 050	32°	3/8"	8.3	46	64	76	100	147	72	10	30