

## Ordering Information

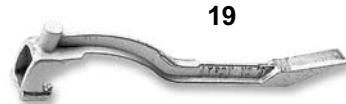
### Part No. Description

#### Spanner Wrenches

- 10 Universal spanner wrench, for 3/4" to 3" rocker lug and pin lug couplings. Features a belt hook eye, hammer head and gas cock. Length 11-1/2".
- 19 Universal suction spanner wrench. For long handle, rocker or pin lug couplings from 2-1/2" to 6". Open end slips over long handles for additional leverage. Opposite end can be used as a pry bar or crowbar. Length 18-3/4".
- 25 Hole type spanner wrench, for hole type, rocker lug and pin lug couplings. Plated for corrosion resistance. Specify either 3/4" - 1" or 2-1/2" size. Akrolite construction. Length 7".
- 46 Fits all combination spanner wrench, designed to fit rocker lug and pin lug couplings from 3/4" to 4". Gas cock shutoff in handle. Akrolite construction. Length 10-1/4".



10



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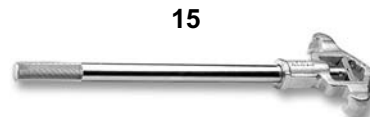
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46

#### Hydrant Wrenches

- 15 Hydrant and spanner wrench. Adjusts to a pentagon nut up to 1-3/4" from point to flat or to a square nut up to 1-1/4". Spanner fits 2-1/2" to 4-1/2" rocker or pin lug couplings. Length 19-1/2".
- 17 Adjustable hydrant wrench. Adjusts to a pentagon nut up to 1-3/4" from point to flat or to a square nut up to 1-1/4". Length 18-5/8".



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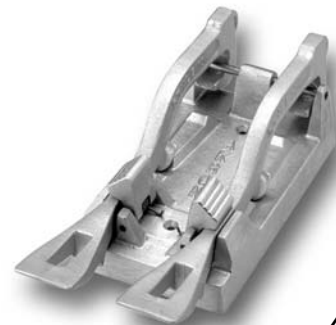
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#### Wrench Holders

- 448 Aluminum dual wrench holder with two (2) No. 10 spanner wrenches.
- 2443 Nylon triple wrench holder with one (1) No. 15 hydrant/spanner wrench and two (2) No. 10 spanner wrenches.



2443



448

## Ordering Information

### Part No. Description

#### Spanner Wrenches

- T-464** Universal spanner wrench, fits up to 3-1/2" rocker lug or pin lug couplings. Features window jimmy, gas cock slot, hammer head and hanger loop. Elk-O-Lite® construction.
- F-464A** Lightweight folding pocket spanner has spanner head at one end and window jimmy at other. Fits up to 3-1/2" rocker or pin lug couplings. Elk-O-Lite® construction, length 10-3/8" (open) and 5-7/8" (folded).



#### Hydrant Wrenches

- S-454** Adjustable combination hydrant and spanner wrench. Adjusts to a pentagon nut up to 1-3/4" or 1-1/2" square nut. Can be used as spanner on 2-1/2" pin lug couplings or rocker lug couplings from 2-1/2" to 5". Length 16-1/2".
- S-454S** Adjustable hydrant wrench. Adjusts to a pentagon nut up to 1-3/4" or 1-1/2" square nut. Can be used as spanner on 4" and 5" Storz or on rocker lug couplings from 2-1/2" to 5". Length 21".



#### Wrench Holders

- 469W** Elk-O-Lite® dual wrench holder with two (2) No. T-464 spanner wrenches.
- 470W** Elk-O-Lite® triple wrench holder with one (1) No. S-454 hydrant/spanner wrench and two (2) No. T-464 spanner wrenches.



## No. 337 International Shore Connection

Shore Connection is a 2-1/2" x 7" O.D. flange threaded with 2-1/2" hose thread to match thread on docks. Flange is drilled to ASA Standard and is supplied complete with bolts, nuts, washers and gaskets.



## No. 336 International Ship Connection

Ship Connection is for use with 337 Shore Connection. Flange is threaded with a 2-1/2" female hose thread to match hose threads on ship. Flange is slotted rather than drilled so that it can be used with non-standard flanges. Connection is supplied complete with bolts, nuts, washers and gaskets.

## No. 6363 Flanged Female Hose Adapters

Flanged female hose adapters are made with female swivel hose thread with gasket seat so hose lines may be easily coupled to connection. Specify size and type hose thread, type wrenching feature (pin lug, rocker lug, slotted lug) and flange dimension when ordering.



## No. 6358 Flanged Male Hose Adapters

Flanged male hose adapters are used for adapting flanged valves and fittings to hose connections. They are manufactured to ASA and Navy Standards in sizes 3/4" through 6". Specify size and type hose thread and flange dimension when ordering.



## No. 18-251 Fire Valve or Wharf Hydrant

Hydrostatically tested for 300 pounds pressure. 3" or 4" NPT female inlet, 2-1/2" male thread outlet. Pentagon nut at top of spindle.

**Finish:** Cast brass



## Fixed Fog Nozzles

The "NT" series of constant flow nozzles is designed for use in fixed system installations. These nozzles are available in a wide range of gallonages and can either be pre-set at the factory or set in the field. The fog pattern can also be changed easily at the installation site.

### No. NTS-C 3/4" Fixed Constant Flow Nozzle

Delivers 5-40 GPM @ 100 PSI

- Fog capabilities up to 120°
- Rugged brass construction
- Available 3/4" NPT male or female base
- Finish Satin Brass
- Length 2"



### No. NTL-C 1" Fixed Constant Flow Nozzle

Delivers 40-100 GPM @ 100 PSI

- Fog capabilities up to 120°
- Rugged cast brass construction
- Available 1" NPT male or female base



- Finish Satin Brass
- Length 2-1/2"

### No. NT-C 1" Fixed Constant Flow Nozzle (Not Shown)

Delivers 100-250 GPM @ 100 PSI

- Fog capabilities up to 120°
- Rugged cast brass construction
- 1-1/2" NPT male base
- Finish Satin Brass
- Length 3"

### No. NTC-500-C 2-1/2" Fixed Constant Flow Nozzle

Delivers 350 or 500 GPM @ 100 PSI

- Fog capabilities up to 120°
- Lightweight Elk-O-Lite® construction
- 2-1/2" NPT female base
- Finish hard anodized
- Length 5"



## Wat-R-Wall Nozzles

These nozzles are designed to produce a flat, fan-shape water curtain. They can be used to protect exposures including apparatus and equipment. At 100 PSI, these nozzles flow 100 GPM and produce a curtain of water approximately 35' wide and 20' high. The swivel head and elbow assembly can be adjusted for best protection and locked in place.



222-2-1/2

### No. 222 - 1-1/2" Wat-R-Wall Nozzle

1-1/2" free swivel inlet no outlet

### No. 222 - 2-1/2" Wat-R-Wall Nozzle

2-1/2" free swivel inlet

2-1/2" male outlet with cap & chain

## Cellar/Attic Nozzles



### No. 193-6 1-1/2" Six Outlet Bresnan Nozzle

For 1-1/2" hose

- Six outlets; three 1/4" and three 5/16"
- Finish cast Chrome

### No. 193-9 2-1/2" Nine Outlet Bresnan Nozzle

For 2-1/2" hose

- Nine outlets; three 9/16" and three 5/8" and three 1/2"
- Finish cast Chrome

# BETE FIRE PROTECTION "N" SERIES SPRAY NOZZLES

## Fire Protection Approved

This Betе high-efficiency spiral was designed specifically with critical fire and explosion suppression applications in mind. These nozzles feature superior performance unequaled by traditional whirl nozzles.

### Design Features

- Simplicity of design
- One piece/no internal parts
- Clog-resistant
- Three standard pipe sizes — 1/2", 1", and 1-1/2"
- Male connection
- Factory Mutual, U.S. Coast Guard, and Lloyd's Register approved models

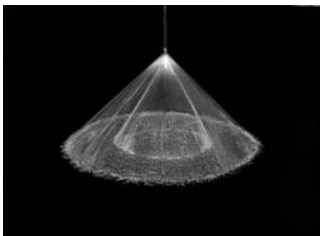
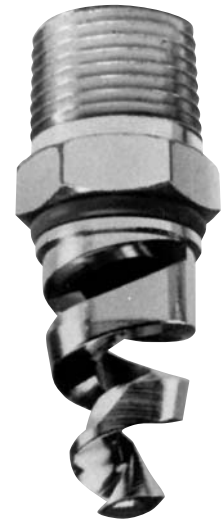
### Spray Characteristics

- Two spray cones, an outer wide-angle cone and a narrower inner cone, combine to give full-cone effect

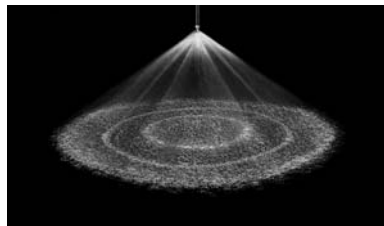
**Spray Pattern:** Full Cone

**Spray Angles:** 90° and 120° standard

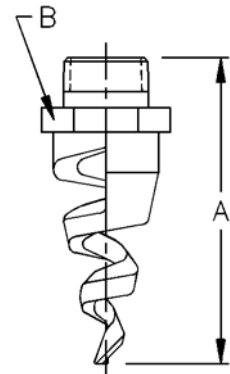
**Flow Rates:** 3.0 to 534 gpm



Full Cone 90°



Full Cone 120°



## N Nozzles Flow Rates & Dimensions

Full Cone, Medium 90° and Wide 120° (W) Spray Angles, 1/2" to 1-1/2" Pipe Sizes

Male Pipe Size	Nozzle Part No.	K Factor	Gallons Per Minute @ PSI									Approx. (in) Free Pass. Orifice Dia.		Approx. Dimensions (inches)	
			10 PSI	20 PSI	30 PSI	40 PSI	60 PSI	80 PSI	100 PSI	200 PSI	400 PSI	A	B		
1/2	N1	.0949	3.00	4.24	5.20	6.00	7.35	8.49	9.49	13.4	19.0	0.19	0.13	2.50	0.88
	N2	1.68	5.3	7.50	9.18	10.6	13.0	15.0	16.8	23.7	33.5	0.25	0.13		
	N3	2.61	8.25	11.7	14.3	16.5	20.2	23.3	26.1	36.9	52.2	0.31	0.13		
	N4	3.81	12.1	17.0	20.9	24.1	29.5	34.1	38.1	53.9	76.2	0.38	0.19		
	N5	5.22	16.5	23.3	28.6	33.0	40.4	46.7	52.2	73.8	104	0.44	0.19		
	N6	6.64	21.0	29.7	36.4	42.0	51.4	59.4	66.4	93.9	133	0.50	0.19		
1	N6	6.64	21.0	29.7	36.4	42.0	51.4	59.4	66.4	93.9	133	0.50	0.19	3.63	1.38
	N7	10.6	33.5	47.4	58.0	67.0	82.1	94.8	106	150	212	0.63	0.25		
	N8	15.0	47.5	67.2	82.3	95.0	116	134	150	212	300	0.75	0.25		
1-1/2	N9	20.4	64.5	91.2	112	129	158	182	204	288	408	0.88	0.31	4.38	2.00
	N10	26.7	84.5	120	146	169	207	239	267	378	534	1.00	0.31		

Flow Rate (GPM) = KÖPSI

**Standard Materials:**  
Brass & 316 Stainless Steel

**TO ORDER:** Specify pipe size, connection type, nozzle number, spray angle, and material.

The Type D3 Protectospray Nozzles are open (non-automatic) directional spray nozzles and are designed for use in water spray fixed systems for fire protection applications. They are external deflector type nozzles that discharge a uniformly filled cone of medium velocity droplets.

They are especially effective in covering exposed vertical, horizontal, curved, and irregular shaped surfaces in a cooling spray to prevent excessive absorption of heat from an external fire and to prevent possible structural damage or spread of fire to the protected equipment. In some applications, depending on water design density requirements, they may also be used for fire control and extinguishment.

## Type D3 Protectospray Nozzle

### Materials and Finishes

Natural finish brass, teflon coated brass, electroless nickel plated bronze, lead-coated bronze, chrome-plated bronze, and natural finish stainless steel.

### Thread Size

1/2" NPT

### Selection of Orifice Sizes

Orifice Size	Minimum Diameter	K-Factor	
		NFPA (GPM + psi)	ISO/SI (LPM + bar)
No. 16	0.203" (5.16mm)	1.2	17.3
No. 18	0.250" (6.35mm)	1.8	25.9
No. 21	0.281" (7.14mm)	2.3	33.1
No. 24	0.328" (8.33mm)	3.0	43.2
No. 28	0.375" (9.53mm)	4.1	59.0
No. 32	0.438" (11.13mm)	5.6	80.6
No. 34	0.500" (12.70mm)	7.2	103.7



### Selection of Spray Angles

- 65°    125°
- 80°    140°
- 95°    160°
- 110°   180°

### Ordering Information

Orifice size of "D" series nozzles is by numerical designation with decimal inch equivalents. Product part numbers can be developed by using the following table.

**49 - 3XX - X - XXX**

