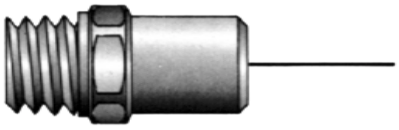
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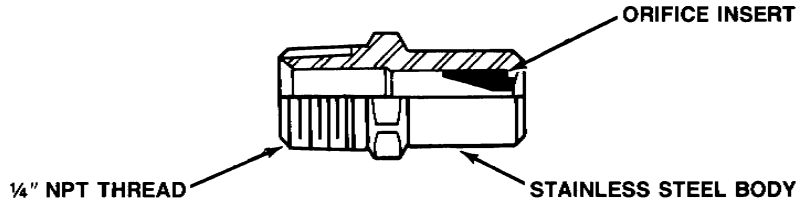
SURFACE CLEANING NOZZLES

TYPE HH - HARD HITTING
15,000 psi max.



HH0 - ( )
available in flow ratings 0 - 30





FEATURES

Type HH nozzles produce an extremely well defined, hard hitting stream for **concentrated, work saving** cleaning and cutting power.

Nozzles feature precision drilled and **honed** orifice inserts which are made of special alloy hardened stainless steel for long service life.

HOW TO ORDER

Order by specifying **NOZZLE NUMBER** (left column) and **FLOW RATING** (chart on reverse). **EXAMPLE: HH0-10** describes a hard hitting nozzle having a #10 flow rating. *See chart on reverse for complete **flow rating** information.*

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SURFACE CLEANING NOZZLES

NOZZLE FLOW RATING

FLOW RATING NUMBER	GPM FLOW @													
	2000 PSI	3000 PSI	4000 PSI	5000 PSI	6000 PSI	7000 PSI	8000 PSI	9000 PSI	10000 PSI	11000 PSI	12000 PSI	13000 PSI	14000 PSI	15000 PSI
1	1.17	1.43	1.65	1.85	2.02	2.19	2.34	2.48	2.61	2.74	2.86	2.98	3.09	3.20
2	1.55	1.90	2.19	2.45	2.68	2.90	3.10	3.29	3.47	3.64	3.80	3.95	4.10	4.24
3	1.89	2.32	2.68	2.99	3.28	3.54	3.79	4.02	4.23	4.44	4.64	4.83	5.01	5.19
4	2.27	2.78	3.21	3.59	3.93	4.25	4.54	4.82	5.08	5.33	5.56	5.79	6.01	6.22
5	3.25	3.98	4.59	5.13	5.62	6.07	6.49	6.89	7.26	7.61	7.98	8.28	8.59	8.89
6	4.13	5.05	5.84	6.52	7.15	7.72	8.25	8.75	9.24	9.68	10.11	10.52	10.92	11.30
7	4.82	5.90	6.81	7.62	8.35	9.01	9.64	10.22	10.77	11.30	11.80	12.28	12.75	13.19
8	5.26	6.44	7.44	8.32	9.11	9.84	10.52	11.16	11.76	12.33	12.88	13.41	13.91	14.40
9	5.72	7.01	8.09	9.04	9.91	10.70	11.44	12.13	12.79	13.41	14.01	14.58	15.13	15.66
10	6.53	8.00	9.24	10.32	11.31	12.22	13.06	13.85	14.60	15.31	16.00	16.65	17.28	17.88
12	7.04	8.63	9.96	11.13	12.20	13.17	14.08	14.94	15.75	16.51	17.25	17.95	18.63	19.29
14	8.50	10.41	12.02	13.44	14.73	15.91	17.00	18.03	19.01	19.94	20.82	21.68	22.49	23.28
15	9.28	11.37	13.13	14.68	16.08	17.37	18.57	19.69	20.76	21.77	22.74	23.67	24.56	25.42
20	12.99	15.91	18.37	20.53	22.49	24.30	25.97	27.55	29.04	30.46	31.81	33.11	34.36	35.57
40	16.77	20.54	23.72	26.52	29.05	31.37	33.54	35.58	37.50	39.33	41.08	42.76	44.37	45.93

The **Nozzle Flow Rating** is a number which defines the **flow** and **pressure** characteristics of the nozzle. This **Flow Rating** determines the size of the nozzle's orifice.

Select **Nozzle Flow Rating** from the chart above by finding the *flow* (corresponding to your pump's capacity) in the column under the *desired operating pressure.* Read across to **Nozzle Flow Rating** in the chart's left hand column.

Example (shaded area): Nozzles having a **Flow Rating** of **9** will produce **8,000 psi @ 11.44 GPM.**

These **Flow Ratings** correspond to those widely used in the waterblast industry.

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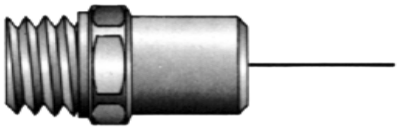
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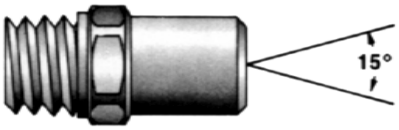
SURFACE CLEANING NOZZLES

TYPE HHTC - HARD HITTING, TUNGSTEN CARBIDE
15,000 psi max.

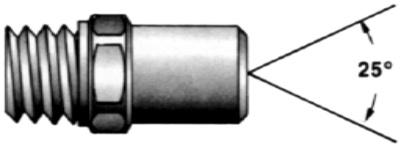
PATTERNS:



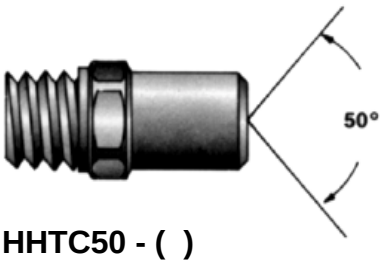
HHTC0 - ( )
available in flow ratings 000 - 30



HHTC15 - ( )
available in flow ratings 0 - 20

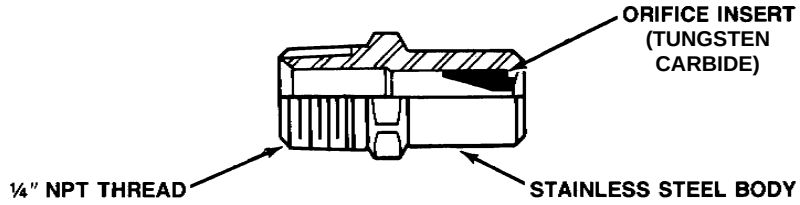


HHTC25 - ( )
available in flow ratings 4 - 20



HHTC50 - ( )
available in flow ratings 5 - 10





FEATURES

Type HHTC nozzles feature exceptionally long wearing precision **tungsten carbide** orifice inserts which significantly outlast conventional nozzle orifice material. In addition, Type HHTC nozzles produce a superior **distortion free, hard hitting** stream for concentrated, work saving cleaning and cutting power. **Type HHTC** nozzles enable **more work** to be done in **less time.**

HOW TO ORDER

Order by specifying **NOZZLE NUMBER** (left column) and **FLOW RATING** (chart on reverse). **EXAMPLE: HHTC15-10** describes a 15° fan nozzle having a #10 flow rating. *See chart on reverse for complete **flow rating** information.*

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SURFACE CLEANING NOZZLES

NOZZLE FLOW RATING

FLOW RATING NUMBER	GPM FLOW @ 2000 PSI	3000 PSI	4000 PSI	5000 PSI	6000 PSI	7000 PSI	8000 PSI	9000 PSI	10000 PSI	11000 PSI	12000 PSI	13000 PSI	14000 PSI	15000 PSI
000	0.35	0.43	0.49	0.55	0.60	0.65	0.70	0.74	0.78	0.82	0.85	0.85	0.92	0.95
00	0.67	0.82	0.95	1.06	1.16	1.25	1.34	1.42	1.50	1.57	1.64	1.64	1.77	1.84
0	0.90	1.11	1.28	1.43	1.56	1.69	1.81	1.92	2.02	2.12	2.21	2.30	2.39	2.47
1	1.17	1.43	1.65	1.85	2.02	2.19	2.34	2.48	2.61	2.74	2.86	2.98	3.09	3.20
2	1.55	1.90	2.19	2.45	2.68	2.90	3.10	3.29	3.47	3.64	3.80	3.95	4.10	4.24
3	1.89	2.32	2.68	2.99	3.28	3.54	3.79	4.02	4.23	4.44	4.64	4.83	5.01	5.19
4	2.27	2.78	3.21	3.59	3.93	4.25	4.54	4.82	5.08	5.33	5.56	5.79	6.01	6.22
5	3.25	3.98	4.59	5.13	5.62	6.07	6.49	6.89	7.26	7.61	7.98	8.28	8.59	8.89
6	4.13	5.05	5.84	6.52	7.15	7.72	8.25	8.75	9.24	9.68	10.11	10.52	10.92	11.30
7	4.82	5.90	6.81	7.62	8.35	9.01	9.64	10.22	10.77	11.30	11.80	12.28	12.75	13.19
8	5.26	6.44	7.44	8.32	9.11	9.84	10.52	11.16	11.76	12.33	12.88	13.41	13.91	14.40
9	5.72	7.01	8.09	9.04	9.91	10.70	11.44	12.13	12.79	13.41	14.01	14.58	15.13	15.66
10	6.53	8.00	9.24	10.32	11.31	12.22	13.06	13.85	14.60	15.31	16.00	16.65	17.28	17.88
12	7.04	8.63	9.96	11.13	12.20	13.17	14.08	14.94	15.75	16.51	17.25	17.95	18.63	19.29
14	8.50	10.41	12.02	13.44	14.73	15.91	17.00	18.03	19.01	19.94	20.82	21.68	22.49	23.28
15	9.28	11.37	13.13	14.68	16.08	17.37	18.57	19.69	20.76	21.77	22.74	23.67	24.56	25.42
20	12.99	15.91	18.37	20.53	22.49	24.30	25.97	27.55	29.04	30.46	31.81	33.11	34.36	35.57
40	16.77	20.54	23.72	26.52	29.05	31.37	33.54	35.58	37.50	39.33	41.08	42.76	44.37	45.93

The **Nozzle Flow Rating** is a number which defines the **flow** and **pressure** characteristics of the nozzle. This **Flow Rating** determines the size of the nozzle's orifice.

Select **Nozzle Flow Rating** from the chart above by finding the *flow* (corresponding to your pump's capacity) in the column under the *desired operating pressure.* Read across to **Nozzle Flow Rating** in the chart's left hand column.

Example (shaded area): Nozzles having a **Flow Rating** of **6** will produce **8,000 psi @ 8.25 GPM.**

These **Flow Ratings** correspond to those widely used in the waterblast industry.

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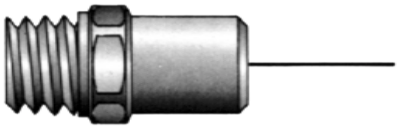
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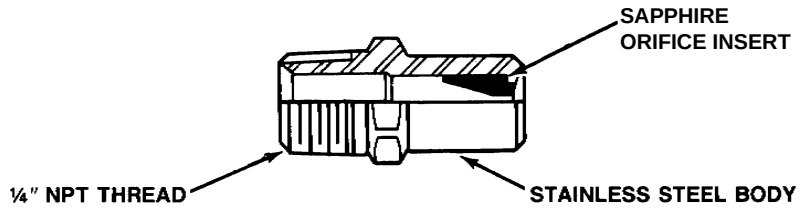
SURFACE CLEANING NOZZLES

TYPE HHS0 - HARD HITTING SAPPHIRE ORIFICE
15,000 psi max.



HHS0 - ( )
available in flow ratings 00 - 5





FEATURES

Type HHS0 nozzles produce an extremely well defined, hard hitting stream for **concentrated, work saving** cleaning and cutting power.

Nozzles feature precision **honed sapphire** orifice inserts which are over twice as durable as tungsten carbide resulting in long service life.

HOW TO ORDER

Order by specifying **NOZZLE NUMBER** (left column) and **FLOW RATING** (chart on reverse). **EXAMPLE: HHS0-3** describes a sapphire nozzle having a #3 flow rating. *See chart on reverse for complete **flow rating** information.*

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SURFACE CLEANING NOZZLES

NOZZLE FLOW RATING

FLOW RATING NUMBER	GPM FLOW @ 2000 PSI	3000 PSI	4000 PSI	5000 PSI	6000 PSI	7000 PSI	8000 PSI	9000 PSI	10000 PSI	11000 PSI	12000 PSI	13000 PSI	14000 PSI	15000 PSI
1	.90	1.15	1.3	1.45	1.6	1.7	1.4	1.95	2.08	2.14	2.25	2.35	2.45	2.55
2	1.2	1.5	1.75	1.95	2.115	2.3	1.82	2.6	2.72	2.85	3.0	3.1	3.25	3.35
3	1.5	1.8	2.1	2.3	2.6	2.8	2.45	3.15	3.3	3.5	3.65	3.8	3.9	4.1
4	1.8	2.25	2.6	2.9	3.15	3.40	3.0	3.85	4.1	4.3	4.5	4.7	4.85	5.0
5	2.5	3.15	3.65	4.05	4.45	4.75	3.65	5.45	5.75	6.0	6.25	6.55	6.75	7.00

The **Nozzle Flow Rating** is a number which defines the **flow** and **pressure** characteristics of the nozzle. This **Flow Rating** determines the size of the nozzle's orifice.

Select **Nozzle Flow Rating** from the chart above by finding the *flow* (corresponding to your pump's capacity) in the column under the *desired operating pressure.* Read across to **Nozzle Flow Rating** in the chart's left hand column.

Example (shaded area): Nozzles having a **Flow Rating** of **4** will produce **8,000 psi @ 3 GPM.**

These **Flow Ratings** correspond to those widely used in the waterblast industry.

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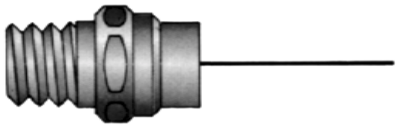
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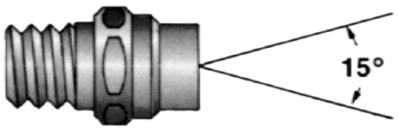
SURFACE CLEANING NOZZLES

TYPE S - STANDARD
15,000 psi max.

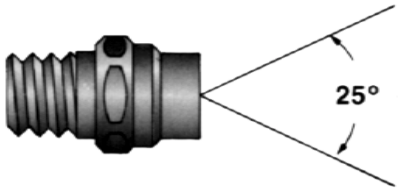
PATTERNS:



S0 - ( )
available in flow ratings 2 - 20
15,000 psi

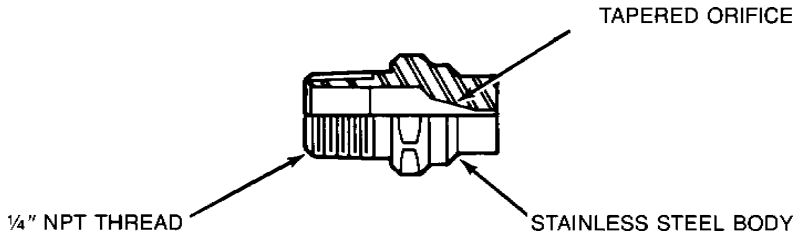


S15 - ( )
available in flow ratings 2 - 20
10,000 psi



S25 - ( )
available in flow ratings 4 - 20
10,000 psi





FEATURES

Type S nozzles are standard surface cleaning nozzles which perform well in **general surface cleaning applications.**

Nozzles are made of stainless steel and feature precision drilled, **tapered orifices** for even, hard hitting cleaning power.

HOW TO ORDER

Order by specifying **NOZZLE NUMBER** (left column) and **FLOW RATING** (chart on reverse). **EXAMPLE: S15-10** describes a 15° fan nozzle having a #10 flow rating. *See chart on reverse for complete **flow rating** information.*

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SURFACE CLEANING NOZZLES

NOZZLE FLOW RATING

FLOW RATING NUMBER	GPM FLOW @ 2000 PSI	3000 PSI	4000 PSI	5000 PSI	6000 PSI	7000 PSI	8000 PSI	9000 PSI	10000 PSI	11000 PSI	12000 PSI	13000 PSI	14000 PSI	15000 PSI
2	1.26	1.54	1.78	1.99	2.18	2.36	2.52	2.67	2.82	2.95	3.08	3.21	3.33	3.45
3	1.54	1.88	2.18	2.43	2.66	2.88	3.08	3.26	3.44	3.61	3.77	3.92	4.07	4.21
4	1.85	2.26	2.61	2.92	3.20	3.45	3.69	3.91	4.13	4.33	4.52	4.70	4.88	5.05
5	2.64	3.23	3.73	4.17	4.57	4.94	5.28	5.60	5.90	6.19	6.46	6.73	6.98	7.22
6	3.35	4.11	4.74	5.30	5.81	6.27	6.70	7.11	7.50	7.89	8.21	8.55	8.87	9.18
7	3.91	4.79	5.54	6.19	6.78	7.32	7.83	8.30	8.75	9.18	9.59	9.98	10.36	10.72
8	4.27	5.23	6.04	6.76	7.40	7.99	8.55	9.06	9.56	10.02	10.47	10.89	11.31	11.70
9	4.65	5.69	6.57	7.35	8.05	8.69	9.29	9.86	10.39	10.90	11.38	11.85	12.30	12.73
10	5.31	6.50	7.50	8.39	9.19	9.93	10.61	11.25	11.86	12.44	13.00	13.53	14.04	14.53
12	5.72	7.01	8.09	9.05	9.91	10.70	11.44	12.14	12.79	13.42	14.02	14.59	15.14	15.67
14	6.91	8.46	9.77	10.92	11.96	12.92	13.82	14.65	15.45	16.20	16.92	17.61	18.28	18.92
15	7.54	9.24	10.67	11.93	13.06	14.11	15.09	16.00	16.87	17.69	18.48	19.23	19.96	20.66
20	10.55	12.92	14.92	16.68	18.28	19.74	21.10	22.38	23.60	24.75	25.85	26.90	27.92	28.90
40	13.63	16.69	19.27	21.54	23.60	25.49	27.25	28.91	30.47	31.96	33.38	34.74	36.05	37.32

The **Nozzle Flow Rating** is a number which defines the **flow** and **pressure** characteristics of the nozzle. This **Flow Rating** determines the size of the nozzle's orifice.

Select **Nozzle Flow Rating** from the chart above by finding the *flow* (corresponding to your pump's capacity) in the column under the *desired operating pressure.* Read across to **Nozzle Flow Rating** in the chart's left hand column.

Example (shaded area): Nozzles having a **Flow Rating** of **10** will produce **8,000 psi @ 10.61 GPM.**

These **Flow Ratings** correspond to those widely used in the waterblast industry.

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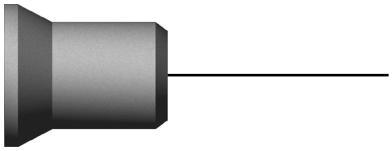
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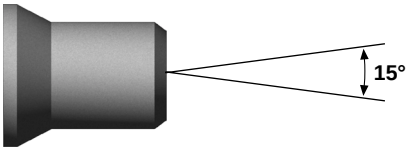
SURFACE CLEANING NOZZLES

TYPE HP - HIGH PRESSURE
20,000 psi max.

PATTERNS:

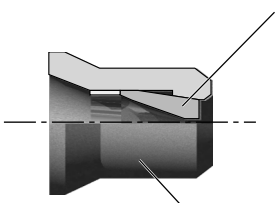


HP0 - ( )
available in flow ratings 000 - 20



HP15 - ( )
available in flow ratings 2 - 5





FEATURES

Type HP nozzles produce an extremely well defined hard hitting stream for **concentrated, work saving** cleaning and cutting power.

Nozzles feature precision **honed** tungsten carbide inserts for long service life. These nozzles can be used with any brand control gun. Call your Jetstream representative for additional information.

HOW TO ORDER

Order by specifying **NOZZLE NUMBER** (left column) and **FLOW RATING** (chart on reverse). **EXAMPLE: HP0-8** describes a high pressure nozzle having a #8 flow rating. *See chart on reverse for complete **flow rating** information.*

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SURFACE CLEANING NOZZLES

TYPE HP - HIGH PRESSURE
20,000 psi max.

NOZZLE FLOW RATING

FLOW RATING NUMBER	GPM FLOW @ 7000 PSI	8000 PSI	9000 PSI	10000 PSI	11000 PSI	12000 PSI	13000 PSI	14000 PSI	15000 PSI	16000 PSI	17000 PSI	18000 PSI	19000 PSI	20000 PSI
0	1.69	1.81	1.92	2.02	2.12	2.21	2.30	2.39	2.47	2.55	2.63	2.71	2.78	2.85
1	2.19	2.34	2.48	2.61	2.74	2.86	2.98	3.09	3.20	3.31	3.41	3.51	3.60	3.70
2	2.90	3.10	3.29	3.47	3.64	3.80	3.95	4.10	4.24	4.38	4.52	4.65	4.78	4.90
3	3.54	3.79	4.02	4.23	4.44	4.64	4.83	5.01	5.19	5.36	5.52	5.68	5.84	5.99
4	4.25	4.54	4.82	5.08	5.33	5.56	5.79	6.01	6.22	6.42	6.62	6.81	7.00	7.18
5	6.07	6.49	6.89	7.26	7.61	7.98	8.28	8.59	8.89	9.18	9.47	9.74	10.00	10.27
6	7.72	8.25	8.75	9.24	9.68	10.11	10.52	10.92	11.30	11.67	12.03	12.38	12.72	13.05
7	9.01	9.64	10.22	10.77	11.30	11.80	12.28	12.75	13.19	13.63	14.05	14.45	14.85	15.24
8	9.84	10.52	11.16	11.76	12.33	12.88	13.41	13.91	14.40	14.87	15.33	15.77	16.21	16.63
9	10.70	11.44	12.13	12.79	13.41	14.01	14.58	15.13	15.66	16.18	16.68	17.16	17.63	18.09

The **Nozzle Flow Rating** is a number which defines the **flow** and **pressure** characteristics of the nozzle. This **Flow Rating** determines the size of the nozzle's orifice.

Select **Nozzle Flow Rating** from the chart above by finding the *flow* (corresponding to your pump's capacity) in the column under the *desired operating pressure.* Read across to **Nozzle Flow Rating** in the chart's left hand column.

Example (shaded area): Nozzles having a **Flow Rating** of **6** will produce **13,000 psi @ 10.52 GPM.**

These **Flow Ratings** correspond to those widely used in the waterblast industry.

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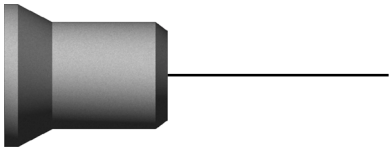
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PERFORMANCE ENGINEERED

SURFACE CLEANING NOZZLES

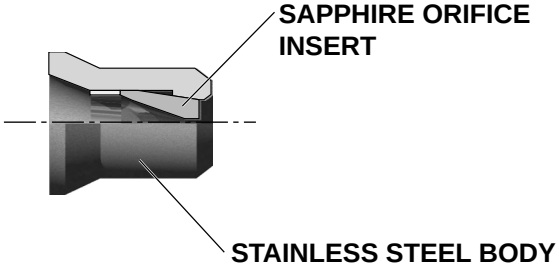
TYPE HPS - HIGH PRESSURE SAPPHIRE ORIFICE INSERT
20,000 psi max.

PATTERNS:



HPS0 - ( )
available in flow ratings 00 - 5





FEATURES

Type HPS0 nozzles produce an extremely well defined hard hitting stream for **concentrated, work saving** cleaning and cutting power.

Nozzles feature precision **sapphire** jewel inserts which are over twice as durable as tungsten carbide resulting in long service life and lower operating cost. These nozzles can be used with any brand control gun. Call your Jetstream representative for additional information.

HOW TO ORDER

Order by specifying **NOZZLE NUMBER** (left column) and **FLOW RATING** (chart on reverse). **EXAMPLE: HPS0-3** describes a sapphire nozzle having a #3 flow rating. *See chart on reverse for complete **flow rating** information.*

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SURFACE CLEANING NOZZLES

TYPE HPS - HIGH PRESSURE SAPPHIRE ORIFICE INSERT
20,000 psi max.

NOZZLE FLOW RATING

FLOW RATING NUMBER	GPM FLOW @													
	7000 PSI	8000 PSI	9000 PSI	10000 PSI	11000 PSI	12000 PSI	13000 PSI	14000 PSI	15000 PSI	16000 PSI	17000 PSI	18000 PSI	19000 PSI	20000 PSI
1	1.7	1.4	1.95	2.08	2.14	2.25	2.35	2.45	2.55	2.64	2.72	2.80	2.88	2.95
2	2.3	1.82	2.6	2.72	2.85	3.0	3.1	3.25	3.35	3.46	3.56	3.67	3.77	3.87
3	2.8	2.45	3.15	3.3	3.5	3.65	3.8	3.9	4.1	4.22	4.35	4.48	4.60	4.72
4	3.40	3.0	3.85	4.1	4.3	4.5	4.7	4.85	5.0	4.16	5.31	5.47	5.62	5.76
5	4.75	3.65	5.45	5.75	6.0	6.25	6.55	6.75	7.00	7.24	7.47	7.68	7.89	8.10

The **Nozzle Flow Rating** is a number which defines the **flow** and **pressure** characteristics of the nozzle. This **Flow Rating** determines the size of the nozzle's orifice.

Select **Nozzle Flow Rating** from the chart above by finding the *flow* (corresponding to your pump's capacity) in the column under the *desired operating pressure.* Read across to **Nozzle Flow Rating** in the chart's left hand column.

Example (shaded area): Nozzles having a **Flow Rating** of **4** will produce **13,000 psi @ 4.7 GPM.**

These **Flow Ratings** correspond to those widely used in the waterblast industry.

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ABRASIVE INJECTOR

5,000 psi - 15,000 psi





FEATURES:

When connected to a high pressure waterblast gun, the Abrasive Injector allows the user to prepare rusted metal and/or strip hard coatings for paint preparation without the hazard of airborne silica particles. Constructed of hardened stainless steel, the compact design offers an easily replaceable water nozzle and long wearing light weight boron carbide abrasive nozzle for extended trouble-free service. To prevent nozzle clogging, the injector is equipped with an integral nozzle shut-off valve, stopping water flow through the nozzle when the line pressure drops below 150 psi. Maximum pressure and flow for the unit are 15,000 psi and 20 gpm respectively.



Optional Abrasive Pot

SPECIFICATIONS:

ASSEMBLY PART NO.	WATER NOZZLE PART NO.	ABRASIVE NOZZLE PART NO.	INLET CONNECTION	ABRASIVE CONNECTION	MAXIMUM OPERATING PRESSURE	WEIGHT
52810	52707	52815	3/8" NPTF	1/2" Hose Barb	15,000 psi	1.5 lbs.

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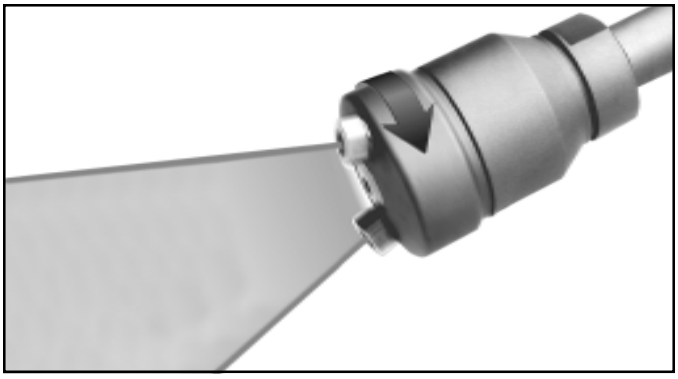
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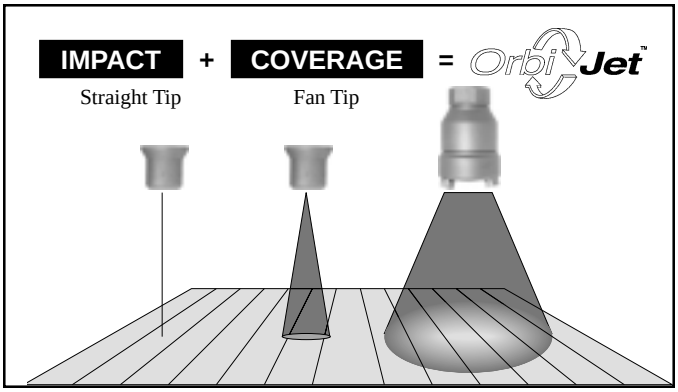
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ORBI-JET SURFACE SPINNING NOZZLE

15,000 - 20,000 psi







FEATURES:

The Orbi-Jet surface cleaning nozzle is a self-powered rotating nozzle that uses two straight-pattern, hard-hitting, replaceable tungsten carbide nozzles. These nozzles produce concentrated streams which rotate at a controlled speed to give you more cleaning production than a fan tip with the added impact of a straight tip. The Orbi-Jet has an eddy current magnetic braking system which controls rotational speed for maximum cleaning and minimum wear. The Orbi-Jet is designed to be completely rebuilt in the field in less than five minutes (shown at right) using two standard Allen wrenches. It comes standard with a lightweight shroud (not shown) which protects the rotor from abrasion. The Orbi-Jet has two models rated for 15,000 or 20,000 psi.



SPECIFICATIONS:

ASSEMBLY PART NO.	DIAMETER	ASSEMBLY LENGTH	SPEED RANGE (RPM)	ASSEMBLY WEIGHT	MAXIMUM FLOW RATE	INLET THREAD	REBUILD KIT PART NO.	MAXIMUM OPERATING PRESSURE
52200	2-1/8"	3-5/8"	1,000 - 1,500	2-1/4 lbs.	20 GPM	1/2" NPT	52195	15,000 psi
52210	2-1/8"	3-5/8"	1,000 - 1,500	2-1/4 lbs.	20 GPM	9/16" MP AE	52305	20,000 psi

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ORBI-JET NOZZLES

NOZZLE FLOW RATING

NOZZLE NUMBER	GPM FLOW FOR BOTH NOZZLES @						
	5000 PSI	7500 PSI	10000 PSI	12500 PSI	15000 PSI	17500 PSI	20000 PSI
000	1.8	2.0	2.2	2.3	2.4	3.3*	3.6*
00	3.3	3.5	3.7	4.1	4.2	5.3*	5.6*
0	4.3	4.7	5.1	5.3	5.6	6.5*	6.7*
1	5.0	5.5	6.2	6.5	6.9	8.0*	8.3*
2	6.3	7.2	8.0	8.5	9.0	10.3*	**
3	7.3	8.5	9.5	10.1	10.9	**	**
4	8.9	10.4	11.6	12.5	**	**	**
5	11.9	13.8	**	**	**	**	**
6	14.0	**	**	**	**	**	**

*** Indicates flow rate using 20,000 psi mandrel and bushing assembly Part No. 52305.**

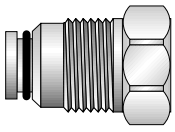
**** Indicates unsafe flows which are not recommended for use in a hand held control gun due to excessive thrust.**

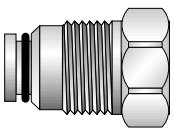
The **Nozzle Flow Rating** is a number which defines the **flow** and **pressure** characteristics of the nozzle. This **Flow Rating** determines the size of the nozzle's orifice.

Select **Nozzle Flow Rating** from the chart above by finding the *flow* (corresponding to your pump's capacity) in the column under the *desired operating pressure.* Read across to **Nozzle Flow Rating** in the chart's left hand column.

Example (shaded area): A pair of nozzles having a **Flow Rating** of **1** will produce **15,000 psi @ 6.9 GPM.**

ORBI-JET NOZZLES





The **OR Nozzles** (shown above actual size) come in a variety of sizes and are available in Tungsten Carbide or Sapphire orifice insert. Call your Jetstream representative for more information.

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TUBE CLEANING NOZZLES

TYPE FP - FEMALE PIPE THREAD (NPT)

SIZES (Nozzles shown true size) / PATTERNS		1 For FLEX or RIGID Lance	2 For FLEX or RIGID Lance	3 For FLEX or RIGID Lance	4 For FLEX or RIGID Lance	5 For FLEX or RIGID Lance	6 RIGID Lance ONLY	7 RIGID Lance ONLY
1 1/16" NPT .375" Dia.		**FP11-( )** 1 Jet Front, 6 Back	**FP12-( )** 1 Jet Front, 12 Back	**FP13-( )** 4 Jets Front, 6 Back	**FP14-( )** 4 Jets Front, 8 Back	**FP15-( )** 4 Jets Front, 6 Back, 6 Radial	**FP16-( )** 1 Jet Front, 6 Radial	**FP17-( )** 1 Jet Front, 12 Radial
3 1/8" NPT .500" Dia.		**FP31-( )** 1 Jet Front, 6 Back	**FP32-( )** 1 Jet Front, 12 Back	**FP33-( )** 4 Jets Front, 6 Back	**FP34-( )** 4 Jets Front, 8 Back	**FP35-( )** 4 Jets Front, 6 Back, 6 Radial	**FP36-( )** 1 Jet Front, 6 Radial	**FP37-( )** 1 Jet Front, 12 Radial
4 1/4" NPT .625" Dia.		**FP41-( )** 1 Jet Front, 8 Back	**FP42-( )** 1 Jet Front, 16 Back	**FP43-( )** 4 Jets Front, 8 Back	**FP44-( )** 4 Jets Front, 12 Back	**FP45-( )** 4 Jets Front, 8 Back, 8 Radial	**FP46-( )** 1 Jet Front, 8 Radial	**FP47-( )** 1 Jet Front, 16 Radial
5 3/8" NPT .875" Dia.		**FP51-( )** 1 Jet Front, 8 Back	**FP52-( )** 1 Jet Front, 16 Back	**FP53-( )** 4 Jets Front, 8 Back	**FP54-( )** 4 Jets Front, 12 Back	**FP55-( )** 4 Jets Front, 8 Back, 8 Radial	**FP56-( )** 1 Jet Front, 8 Radial	**FP57-( )** 1 Jet Front, 16 Radial
6 1/2" NPT 1.00" Dia.		**FP61-( )** 1 Jet Front, 8 Back	**FP62-( )** 1 Jet Front, 16 Back	**FP63-( )** 4 Jets Front, 8 Back	**FP64-( )** 4 Jets Front, 12 Back	**FP65-( )** 4 Jets Front, 8 Back, 8 Radial	**FP66-( )** 1 Jet Front, 8 Radial	**FP67-( )** 1 Jet Front, 16 Radial
7 3/4" NPT 1.375" Dia.		**FP71-( )** 1 Jet Front, 8 Back	**FP72-( )** 1 Jet Front, 16 Back	**FP73-( )** 4 Jets Front, 8 Back	**FP74-( )** 4 Jets Front, 12 Back	**FP75-( )** 4 Jets Front, 8 Back, 8 Radial	**FP76-( )** 1 Jet Front, 8 Radial	**FP77-( )** 1 Jet Front, 16 Radial

See reverse side for description and ordering instructions.

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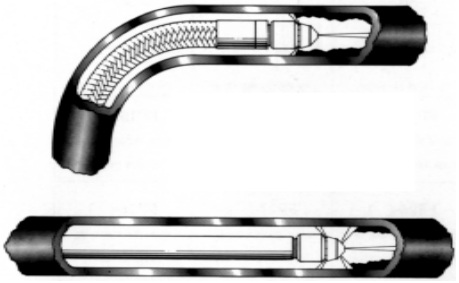
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TUBE CLEANING NOZZLES

USE AND FEATURES

Type FP (female pipe thread) nozzles are designed for use with either **Flex** or **Pipe Style Rigid Lances** having male pipe threads (NPT). These hardened stainless steel nozzles have the **smallest possible outside diameters** and **shortest overall lengths** for ease of movement through any tube. **Type FP** nozzles feature a unique **double taper nose** from which all cleaning jets radiate. This tapered nose section easily penetrates heavy fouling or blockages removing debris *ahead* of the major nozzle diameter. Fast, unrestricted travel of the nozzle results. This high productivity feature is available only on **JETSTREAM** tube cleaning nozzles. Orifices are recessed to provide protection from surface abrasion or wrench damage caused during installation.



Type FP nozzles are used with **JETSTREAM Flex** or **Rigid Lances** having male pipe threads.

SIZES, PATTERNS AND FLOW RATINGS

Type FP nozzles are available in **6 Sizes, 8 Patterns** and **14 Flow Ratings** (see chart on previous page and below). These combinations provide an extremely wide range of "standard" nozzles.

HOW TO ORDER

EXAMPLE: FP44-10 describes a **SIZE #4** nozzle (left column-chart on reverse) having **PATTERN #4** (top row-chart on reverse) and a **#10 FLOW RATING** (below). *Example is illustrated in shaded area on the previous page.*

NOZZLE FLOW RATING

FLOW RATING NUMBER	GPM FLOW @ 2000 PSI	3000 PSI	4000 PSI	5000 PSI	6000 PSI	7000 PSI	8000 PSI	9000 PSI	10000 PSI	11000 PSI	12000 PSI	13000 PSI	14000 PSI	15000 PSI
2	1.2	1.5	1.75	1.95	2.115	2.3	2.45	2.6	2.72	2.85	3.0	3.1	3.25	3.35
3	1.5	1.8	2.1	2.3	2.6	2.8	3.0	3.15	3.3	3.5	3.65	3.8	3.9	4.1
4	1.8	2.25	2.6	2.9	3.15	3.40	3.65	3.85	4.1	4.3	4.5	4.7	4.85	5.0
5	2.5	3.15	3.65	4.05	4.45	4.75	5.15	5.45	5.75	6.0	6.2	6.55	6.75	7.00
6	3.25	4.10	4.7	5.25	5.75	6.25	6.60	7.0	7.40	7.75	8.1	8.40	8.75	9.1
7	3.75	4.6	5.4	6	6.6	7.1	7.6	8.1	8.5	8.9	9.4	9.0	10.1	10.4
8	4.1	5.1	5.9	6.5	7.15	7.8	8.2	8.8	9.2	9.8	10.1	10.7	11	11.3
9	4.5	5.5	6.4	7.1	7.8	8.4	9	9.75	10.1	10.6	11	11.6	12	12.4
10	5.2	6.2	7.2	8.1	8.9	9.7	10.2	10.9	11.6	12.1	12.7	13.1	13.7	14.1
12	5.75	6.9	7.9	8.8	9.7	10.4	11.1	11.8	12.4	13	13.7	14.1	14.7	15.1
14	6.8	8.2	9.5	10.3	11.7	12.6	13.5	14.2	15	15.8	16.3	17.1	17.8	18.4
15	7.4	9	10.2	11.7	12.8	13.8	14.7	15.6	16.5	17.1	18	18.6	19.4	20
20	10	12.8	14.5	16.25	17.75	19.25	20.5	21.75	23	24	25	26.1	27.1	28
40	13.25	16.15	18.85	21	23	25	26.5	28.15	29.5	31	32.15	33.85	35.0	36.15

The **Nozzle Flow Rating** is a number which defines the **flow** and **pressure** characteristics of the nozzle. This **Flow Rating** determines the size of the nozzle's orifice.

Select **Nozzle Flow Rating** from the chart above by finding the *flow* (corresponding to your pump's capacity) in the column under the *desired operating pressure.* Read across to **Nozzle Flow Rating** in the chart's left hand column.

Example (shaded area): Nozzles having a **Flow Rating** of **10** will produce **8,000 psi @ 10.2 GPM.**

These **Flow Ratings** correspond to those widely used in the waterblast industry.

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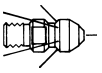
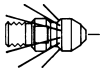
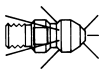
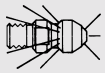
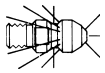
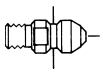
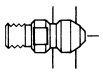
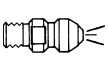
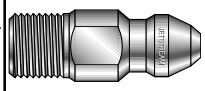
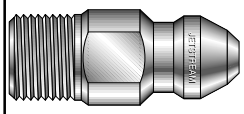
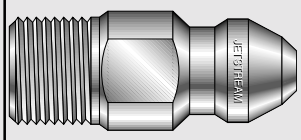
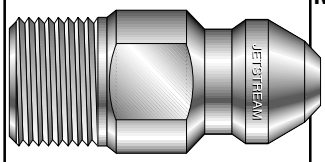
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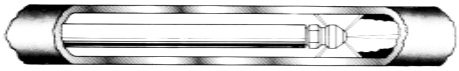
TUBE CLEANING NOZZLES

TYPE MP - MALE PIPE THREAD (NPT)

PATTERNS / SIZES (Nozzles shown true size)		1	2	3	4	5	6	7	8
		 For FLEX or RIGID Lance	 For FLEX or RIGID Lance	 For FLEX or RIGID Lance	 For FLEX or RIGID Lance	 For FLEX or RIGID Lance	 RIGID Lance ONLY	 RIGID Lance ONLY	 RIGID Lance ONLY
1 1/16" NPT .375" Dia.		**MP11-( )** 1 Jet Front, 6 Back	**MP12-( )** 1 Jet Front, 12 Back	**MP13-( )** 4 Jets Front, 6 Back	**MP14-( )** 4 Jets Front, 8 Back	**MP15-( )** 4 Jets Front, 6 Back, 6 Radial	**MP16-( )** 1 Jet Front, 6 Radial	**MP17-( )** 1 Jet Front, 12 Radial	**MP18-( )** 6 Jets Front
2 1/8" NPT .500" Dia.		**MP21-( )** 1 Jet Front, 8 Back	**MP22-( )** 1 Jet Front, 16 Back	**FP23-( )** 4 Jets Front, 8 Back	**MP24-( )** 4 Jets Front, 12 Back	**MP25-( )** 4 Jets Front, 8 Back, 8 Radial	**MP26-( )** 1 Jet Front, 8 Radial	**MP27-( )** 1 Jet Front, 16 Radial	**MP28-( )** 8 Jets Front
3 1/4" NPT .625" Dia.		**MP31-( )** 1 Jet Front, 8 Back	**MP32-( )** 1 Jet Front, 16 Back	**MP33-( )** 4 Jets Front, 8 Back	**MP34-( )** 4 Jets Front, 12 Back	**MP35-( )** 4 Jets Front, 8 Back, 8 Radial	**MP36-( )** 1 Jet Front, 8 Radial	**MP37-( )** 1 Jet Front, 16 Radial	**MP38-( )** 8 Jets Front
4 3/8" NPT .750" Dia.		**MP41-( )** 1 Jet Front, 8 Back	**MP42-( )** 1 Jet Front, 16 Back	**MP43-( )** 4 Jets Front, 8 Back	**MP44-( )** 4 Jets Front, 12 Back	**MP45-( )** 4 Jets Front, 8 Back, 8 Radial	**MP46-( )** 1 Jet Front, 8 Radial	**MP47-( )** 1 Jet Front, 16 Radial	**MP48-( )** 8 Jets Front

USE AND FEATURES

Type MP (male pipe thread) nozzles are designed for use with **Pipe Style** or **Mechanical Tubing Style Rigid Lances** having female pipe threads (NPT). These hardened stainless steel nozzles permit **streamlined nozzle/lance combinations** as nozzle diameter is never greater than diameter of lance. Pipe thread (NPT) connection provides a superior high pressure seal. **Type MP** nozzles feature a unique **small diameter double tapered nose section** from which all cleaning jets radiate. This nose section easily penetrates heavy fouling or blockages removing debris *ahead* of the major nozzle diameter. Fast, unrestricted travel of the nozzle results. This high productivity feature is available only on **JETSTREAM** tube cleaning nozzles. Orifices are recessed to provide protection from surface abrasion; wrench flats permit installation without use of damaging pipe wrench.



Type MP nozzles are used with **JETSTREAM Rigid Lances** having female pipe threads.

SIZES, PATTERNS AND FLOW RATINGS

Type MP nozzles are available in **4 Sizes, 8 Patterns** and **14 Flow Ratings** (see chart). These combinations provide an extremely wide range of "standard" nozzles.

Custom drilled **Type MP** nozzles are also available. Call our Toll Free sales number for information.

HOW TO ORDER

EXAMPLE: MP24-10 describes a **SIZE #2** nozzle (left column) having **PATTERN #4** (top row) and a **#10 FLOW RATING** (chart on reverse). *Example is illustrated in outlined area on the above chart.*

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TUBE CLEANING NOZZLES

NOZZLE FLOW RATING

FLOW RATING NUMBER	GPM FLOW @ 2000 PSI	3000 PSI	4000 PSI	5000 PSI	6000 PSI	7000 PSI	8000 PSI	9000 PSI	10000 PSI	11000 PSI	12000 PSI	13000 PSI	14000 PSI	15000 PSI
2	1.2	1.5	1.75	1.95	2.115	2.3	2.45	2.6	2.72	2.85	3.0	3.1	3.25	3.35
3	1.5	1.8	2.1	2.3	2.6	2.8	3.0	3.15	3.3	3.5	3.65	3.8	3.9	4.1
4	1.8	2.25	2.6	2.9	3.15	3.40	3.65	3.85	4.1	4.3	4.5	4.7	4.85	5.0
5	2.5	3.15	3.65	4.05	4.45	4.75	5.15	5.45	5.75	6.0	6.2	6.55	6.75	7.00
6	3.25	4.10	4.7	5.25	5.75	6.25	6.60	7.0	7.40	7.75	8.1	8.40	8.75	9.1
7	3.75	4.6	5.4	6	6.6	7.1	7.6	8.1	8.5	8.9	9.4	9.0	10.1	10.4
8	4.1	5.1	5.9	6.5	7.15	7.8	8.2	8.8	9.2	9.8	10.1	10.7	11	11.3
9	4.5	5.5	6.4	7.1	7.8	8.4	9	9.75	10.1	10.6	11	11.6	12	12.4
10	5.2	6.2	7.2	8.1	8.9	9.7	10.2	10.9	11.6	12.1	12.7	13.1	13.7	14.1
12	5.75	6.9	7.9	8.8	9.7	10.4	11.1	11.8	12.4	13	13.7	14.1	14.7	15.1
14	6.8	8.2	9.5	10.3	11.7	12.6	13.5	14.2	15	15.8	16.3	17.1	17.8	18.4
15	7.4	9	10.2	11.7	12.8	13.8	14.7	15.6	16.5	17.1	18	18.6	19.4	20
20	10	12.8	14.5	16.25	17.75	19.25	20.5	21.75	23	24	25	26.1	27.1	28
40	13.25	16.15	18.85	21	23	25	26.5	28.15	29.5	31	32.15	33.85	35.0	36.15

The **Nozzle Flow Rating** is a number which defines the **flow** and **pressure** characteristics of the nozzle. This **Flow Rating** determines the size of the nozzle's orifice.

Select **Nozzle Flow Rating** from the chart above by finding the *flow* (corresponding to your pump's capacity) in the column under the *desired operating pressure.* Read across to **Nozzle Flow Rating** in the chart's left hand column.

Example (shaded area): Nozzles having a **Flow Rating** of **10** will produce **8,000 psi @ 10.2 GPM.**

These **Flow Ratings** correspond to those widely used in the waterblast industry.

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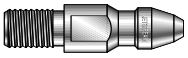
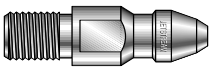
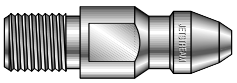
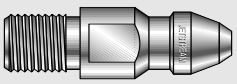
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TUBE CLEANING NOZZLES

TYPE MS - MALE MACHINE SCREW THREAD (UNC, UNF)

PATTERNS / SIZES (Nozzles shown true size)		1 For FLEX or RIGID Lance	2 For FLEX or RIGID Lance	3 For FLEX or RIGID Lance	4 For FLEX or RIGID Lance	5 For FLEX or RIGID Lance	6 RIGID Lance ONLY	7 RIGID Lance ONLY
1 #12-28 UN .250" Dia.		**MS11-( )** 1 Jet Front, 6 Back	**MS12-( )** 1 Jet Front, 12 Back	**MS13-( )** 4 Jets Front, 6 Back	**MS14-( )** 4 Jets Front, 8 Back	**MS15-( )** 4 Jets Front, 6 Back, 6 Radial	**MS16-( )** 1 Jet Front, 6 Radial	**MS17-( )** 1 Jet Front, 12 Radial
2 1/4"-28 UN .312" Dia.		**MS21-( )** 1 Jet Front, 6 Back	**MS22-( )** 1 Jet Front, 12 Back	**MS23-( )** 4 Jets Front, 6 Back	**MS24-( )** 4 Jets Front, 8 Back	**MS25-( )** 4 Jets Front, 6 Back, 6 Radial	**MS26-( )** 1 Jet Front, 6 Radial	**MS27-( )** 1 Jet Front, 12 Radial
3 5/16"-24 UN .375" Dia.		**MS31-( )** 1 Jet Front, 6 Back	**MS32-( )** 1 Jet Front, 12 Back	**MS33-( )** 4 Jets Front, 6 Back	**MS34-( )** 4 Jets Front, 8 Back	**MS35-( )** 4 Jets Front, 6 Back, 6 Radial	**MS36-( )** 1 Jet Front, 6 Radial	**MS37-( )** 1 Jet Front, 12 Radial
4 5/16"-18 UN .375" Dia.		**MS41-( )** 1 Jet Front, 6 Back	**MS42-( )** 1 Jet Front, 12 Back	**MS43-( )** 4 Jets Front, 6 Back	**MS44-( )** 4 Jets Front, 8 Back	**MS45-( )** 4 Jets Front, 6 Back, 6 Radial	**MS46-( )** 1 Jet Front, 6 Radial	**MS47-( )** 1 Jet Front, 12 Radial

USE AND FEATURES

Type MS (male machine screw thread) nozzles are designed for use with **Pipe Style** or **Mechanical Tubing Style Rigid Lances** having female machine screw threads (UNC, UNF). These hardened stainless steel nozzles permit **streamlined nozzle/lance combinations** as nozzle diameter is never greater than diameter of lance. **Type MS** nozzles are available in a broad range of sizes including the smallest nozzles available for rigid lance use. **Type MS** nozzles feature a unique **small diameter, double tapered nose section** from which all cleaning jets radiate. This nose section easily penetrates heavy fouling or blockages removing debris *ahead* of the major nozzle diameter. Fast, unrestricted nozzle travel results. This high productivity feature is available only on **JETSTREAM** tube cleaning nozzles. Orifices are recessed to provide protection from surface abrasion; wrench flats permit installation without use of damaging pipe wrench.



Type MS nozzles are used with **JETSTREAM Mechanical Tubing Style** or **Pipe Style Rigid Lances** having female machine screw threads.

HOW TO ORDER

EXAMPLE: MS44-10 describes a **SIZE #4** nozzle (left column) having **PATTERN #4** (top row) and a **#10 FLOW RATING** (chart on reverse). *Example is illustrated in shaded area on the above chart.*

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TUBE CLEANING NOZZLES

TYPE MS - MALE MACHINE SCREW THREAD (UNC, UNF)

SIZES, PATTERNS AND FLOW RATINGS

Type MS nozzles are available in **4 Sizes, 8 Patterns** and **14 Flow Ratings** (see chart on previous page and below). These combinations provide an extremely wide range of "standard" nozzles.

Custom drilled **Type MS** nozzles are also available. Call our Toll Free Sales number for additional information.

NOZZLE FLOW RATING

FLOW RATING NUMBER	GPM FLOW @													
	2000 PSI	3000 PSI	4000 PSI	5000 PSI	6000 PSI	7000 PSI	8000 PSI	9000 PSI	10000 PSI	11000 PSI	12000 PSI	13000 PSI	14000 PSI	15000 PSI
2	1.2	1.5	1.75	1.95	2.115	2.3	2.45	2.6	2.72	2.85	3.0	3.1	3.25	3.35
3	1.5	1.8	2.1	2.3	2.6	2.8	3.0	3.15	3.3	3.5	3.65	3.8	3.9	4.1
4	1.8	2.25	2.6	2.9	3.15	3.40	3.65	3.85	4.1	4.3	4.5	4.7	4.85	5.0
5	2.5	3.15	3.65	4.05	4.45	4.75	5.15	5.45	5.75	6.0	6.2	6.55	6.75	7.00
6	3.25	4.10	4.7	5.25	5.75	6.25	6.60	7.0	7.40	7.75	8.1	8.40	8.75	9.1
7	3.75	4.6	5.4	6	6.6	7.1	7.6	8.1	8.5	8.9	9.4	9.0	10.1	10.4
8	4.1	5.1	5.9	6.5	7.15	7.8	8.2	8.8	9.2	9.8	10.1	10.7	11	11.3
9	4.5	5.5	6.4	7.1	7.8	8.4	9	9.75	10.1	10.6	11	11.6	12	12.4
10	5.2	6.2	7.2	8.1	8.9	9.7	10.2	10.9	11.6	12.1	12.7	13.1	13.7	14.1
12	5.75	6.9	7.9	8.8	9.7	10.4	11.1	11.8	12.4	13	13.7	14.1	14.7	15.1
14	6.8	8.2	9.5	10.3	11.7	12.6	13.5	14.2	15	15.8	16.3	17.1	17.8	18.4
15	7.4	9	10.2	11.7	12.8	13.8	14.7	15.6	16.5	17.1	18	18.6	19.4	20
20	10	12.8	14.5	16.25	17.75	19.25	20.5	21.75	23	24	25	26.1	27.1	28
40	13.25	16.15	18.85	21	23	25	26.5	28.15	29.5	31	32.15	33.85	35.0	36.15

The **Nozzle Flow Rating** is a number which defines the **flow** and **pressure** characteristics of the nozzle. This **Flow Rating** determines the size of the nozzle's orifice.

Select **Nozzle Flow Rating** from the chart above by finding the *flow* (corresponding to your pump's capacity) in the column under the *desired operating pressure.* Read across to **Nozzle Flow Rating** in the chart's left hand column.

Example (shaded area): Nozzles having a **Flow Rating** of **10** will produce **8,000 psi @ 10.2 GPM.**

These **Flow Ratings** correspond to those widely used in the waterblast industry.

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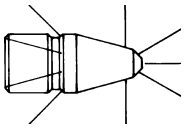
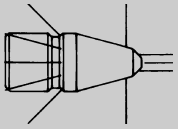
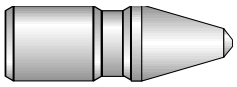
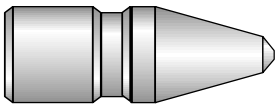
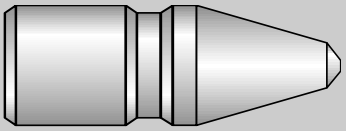
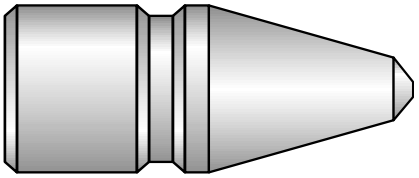
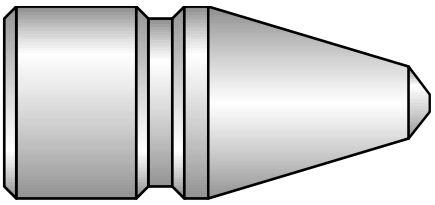
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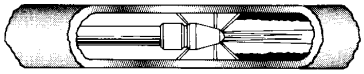
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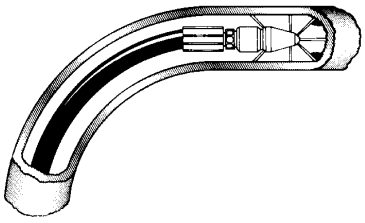
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TUBE CLEANING NOZZLES

TYPE E - FEMALE PIPE THREAD (NPT) - "EVAPORATOR"
15,000 psi max.

SIZES (Nozzles shown true size) / PATTERNS		1 	2 
0 1/16" NPT .390" DIA.		**E01 - ( )** 4 Jets Front, 4 Radial, 6 Back	**E02 - ( )** 4 Jets Front, 6 Radial, 8 Back
1 1/8" NPT .500" DIA.		**E11 - ( )** 4 Jets Front, 6 Radial, 6 Back	**E12 - ( )** 4 Jets Front, 6 Radial, 12 Back
2 1/4" NPT .625" DIA.		**E21 - ( )** 4 Jets Front, 6 Radial, 6 Back	**E22 - ( )** 4 Jets Front, 6 Radial, 12 Back
3 3/8" NPT .870" DIA.		**E31 - ( )** 4 Jets Front, 8 Radial, 8 Back	**E32 - ( )** 4 Jets Front, 8 Radial, 16 Back
4 1/2" NPT 1.00" DIA.		**E41 - ( )** 4 Jets Front, 8 Radial, 8 Back	**E42 - ( )** 4 Jets Front, 8 Radial, 16 Back





USE AND FEATURES

Designed for use with **Flex** or **Rigid Lances** having male pipe threads, **Type E** nozzles are particularly desirable for cleaning heavily fouled or plugged tubes. As nozzle passes through tube, forward jets blast through debris, radial jets open the passage and rearward jets flush away remaining debris. This *triple action cleaning* means fast, unrestricted travel.

Orifices are "staggered" for effective 360° coverage and recessed for protection from surface abrasion.

HOW TO ORDER

Order by specifying **NOZZLE NUMBER** (left column) and **FLOW RATING** (chart on reverse). **EXAMPLE: E22-10** describes a **Size #2** (left column) nozzle having a **Pattern #2** (top row) and a **#10 Flow Rating** (chart on reverse). *Example is illustrated in shaded area on the above chart.*

Custom drilled **Type E** nozzles are also available. Call our Toll Free sales number for information.

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TUBE CLEANING NOZZLES

NOZZLE FLOW RATING

FLOW RATING NUMBER	GPM FLOW @ 2000 PSI	3000 PSI	4000 PSI	5000 PSI	6000 PSI	7000 PSI	8000 PSI	9000 PSI	10000 PSI	11000 PSI	12000 PSI	13000 PSI	14000 PSI	15000 PSI
2	1.2	1.5	1.75	1.95	2.115	2.3	2.45	2.6	2.72	2.85	3.0	3.1	3.25	3.35
3	1.5	1.8	2.1	2.3	2.6	2.8	3.0	3.15	3.3	3.5	3.65	3.8	3.9	4.1
4	1.8	2.25	2.6	2.9	3.15	3.40	3.65	3.85	4.1	4.3	4.5	4.7	4.85	5.0
5	2.5	3.15	3.65	4.05	4.45	4.75	5.15	5.45	5.75	6.0	6.2	6.55	6.75	7.00
6	3.25	4.10	4.7	5.25	5.75	6.25	6.60	7.0	7.40	7.75	8.1	8.40	8.75	9.1
7	3.75	4.6	5.4	6	6.6	7.1	7.6	8.1	8.5	8.9	9.4	9.0	10.1	10.4
8	4.1	5.1	5.9	6.5	7.15	7.8	8.2	8.8	9.2	9.8	10.1	10.7	11	11.3
9	4.5	5.5	6.4	7.1	7.8	8.4	9	9.75	10.1	10.6	11	11.6	12	12.4
10	5.2	6.2	7.2	8.1	8.9	9.7	10.2	10.9	11.6	12.1	12.7	13.1	13.7	14.1
12	5.75	6.9	7.9	8.8	9.7	10.4	11.1	11.8	12.4	13	13.7	14.1	14.7	15.1
14	6.8	8.2	9.5	10.3	11.7	12.6	13.5	14.2	15	15.8	16.3	17.1	17.8	18.4
15	7.4	9	10.2	11.7	12.8	13.8	14.7	15.6	16.5	17.1	18	18.6	19.4	20
20	10	12.8	14.5	16.25	17.75	19.25	20.5	21.75	23	24	25	26.1	27.1	28
40	13.25	16.15	18.85	21	23	25	26.5	28.15	29.5	31	32.15	33.85	35.0	36.15

The **Nozzle Flow Rating** is a number which defines the **flow** and **pressure** characteristics of the nozzle. This **Flow Rating** determines the size of the nozzle's orifice.

Select **Nozzle Flow Rating** from the chart above by finding the *flow* (corresponding to your pump's capacity) in the column under the *desired operating pressure.* Read across to **Nozzle Flow Rating** in the chart's left hand column.

Example (shaded area): Nozzles having a **Flow Rating** of **10** will produce **8,000 psi @ 10.2 GPM.**

These **Flow Ratings** correspond to those widely used in the waterblast industry.

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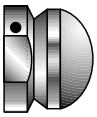
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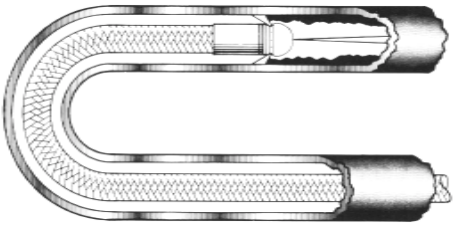
TUBE CLEANING NOZZLES

TYPE C - EXTRA COMPACT

PATTERNS / SIZES (Nozzles shown true size)		1	2	3	4
1 5/16"-32 UN .500" Dia.		**C11-( )** 1 Jet Front, 8 Jets Back	**C12-( )** 1 Jet Front, 16 Jets Back	**C13-( )** 4 Jets Front, 8 Jets Back	**C14-( )** 4 Jets Front, 16 Jets Back
2 5/16"-32 UN .560" Dia.		**C21-( )** 1 Jet Front, 8 Jets Back	**C22-( )** 1 Jet Front, 16 Jets Back	**C23-( )** 4 Jets Front, 8 Jets Back	**C24-( )** 4 Jets Front, 16 Jets Back

USE AND FEATURES

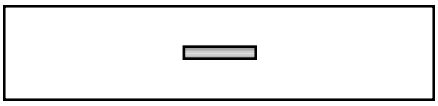
Type C (extra compact) nozzles are designed for use only with special lances having 5/16"-32 UN Male nozzle end threads. These **short end fitting/nozzle combinations** are very useful for the cleaning of "U-Tubes" and other short radius situations, though also perform very well in cleaning any small diameter tubes. Nozzles are made of hardened stainless steel.



HOW TO ORDER

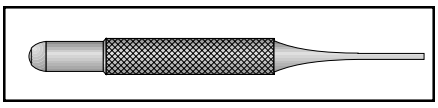
EXAMPLE: C12-10 describes a **SIZE #1** nozzle (left column) having **PATTERN #2** (top row) and a **#10 FLOW RATING** (chart on reverse). *Example is illustrated in shaded area above.*

Custom drilled **Type C** nozzles are also available. Call our Toll Free number for information.



NOZZLE LOCKING PIN, Part No. 25501

Type C nozzles require the use of thread locking pins installed *after* the nozzle is screwed onto the lance. Pin prevents nozzle from unscrewing during use.



LOCKING PIN REMOVAL TOOL, Part No. 25749

Drift style punch is used for locking pin removal.

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TUBE CLEANING NOZZLES

TYPE C - EXTRA COMPACT

NOZZLE FLOW RATING

FLOW RATING NUMBER	GPM FLOW @ 2000 PSI	3000 PSI	4000 PSI	5000 PSI	6000 PSI	7000 PSI	8000 PSI	9000 PSI	10000 PSI
2	1.2	1.5	1.75	1.95	2.115	2.3	2.45	2.6	2.72
3	1.5	1.8	2.1	2.3	2.6	2.8	3.0	3.15	3.3
4	1.8	2.25	2.6	2.9	3.15	3.40	3.65	3.85	4.1
5	2.5	3.15	3.65	4.05	4.45	4.75	5.15	5.45	5.75
6	3.25	4.10	4.7	5.25	5.75	6.25	6.60	7.0	7.40
7	3.75	4.6	5.4	6	6.6	7.1	7.6	8.1	8.5
8	4.1	5.1	5.9	6.5	7.15	7.8	8.2	8.8	9.2
9	4.5	5.5	6.4	7.1	7.8	8.4	9	9.75	10.1
10	5.2	6.2	7.2	8.1	8.9	9.7	10.2	10.9	11.6
12	5.75	6.9	7.9	8.8	9.7	10.4	11.1	11.8	12.4
14	6.8	8.2	9.5	10.3	11.7	12.6	13.5	14.2	15
15	7.4	9	10.2	11.7	12.8	13.8	14.7	15.6	16.5
20	10	12.8	14.5	16.25	17.75	19.25	20.5	21.75	23
40	13.25	16.15	18.85	21	23	25	26.5	28.15	29.5

The **Nozzle Flow Rating** is a number which defines the **flow** and **pressure** characteristics of the nozzle. This **Flow Rating** determines the size of the nozzle's orifice.

Select **Nozzle Flow Rating** from the chart above by finding the *flow* (corresponding to your pump's capacity) in the column under the *desired operating pressure.* Read across to **Nozzle Flow Rating** in the chart's left hand column.

Example (shaded area): Nozzles having a **Flow Rating** of **10** will produce **8,000 psi @ 10.2 GPM.**

These **Flow Ratings** correspond to those widely used in the waterblast industry.

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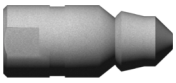
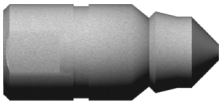
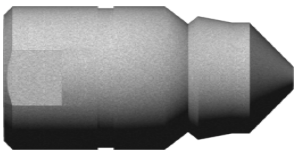
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TUBE CLEANING NOZZLES

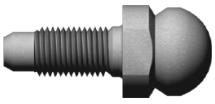
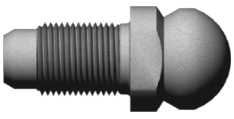
TYPE HPF - HIGH PRESSURE FEMALE NOZZLE - 20,000 PSI
TYPE HPM - HIGH PRESSURE MALE NOZZLE - 20,000 PSI

PATTERNS / SIZES (Nozzles shown true size)		1	2	3	4	5	6
1 1/4"-28 RH .390" Dia.		**HPF11-( )** 1 Jet Front, 6 Jets Back	**HPF12-( )** 1 Jet Front, 8 Jets Back	**HPF13-( )** 4 Jets Front, 6 Jets Back	**HPF14-( )** 4 Jets Front, 8 Jets Back	**HPF15-( )** 3 Jets Front, 6 Jets Back, 3 Jets Radial	**HPF16-( )** 1 Jet Front, 6 Jets Back, 3 Jets Radial
2 3/8"-24 RH .500" Dia.		**HPF21-( )** 1 Jet Front, 6 Jets Back	**HPF22-( )** 1 Jet Front, 8 Jets Back	**HPF23-( )** 4 Jets Front, 6 Jets Back	**HPF24-( )** 4 Jest Front, 8 Jets Back	**HPF25-( )** 4 Jets Front, 6 Jets Back, 4 Jets Radial	**HPF26-( )** 1 Jet Front, 6 Jets Back, 4 Jets Radial
3 9/16"-18 RH .750" Dia.		**HPF31-( )** 1 Jet Front, 8 Jets Back	**HPF32-( )** 1 Jet Front, 12 Jets Back	**HPF33-( )** 4 Jets Front, 8 Jets Back	**HPF34-( )** 4 Jets Front, 12 Jets Back	**HPF35-( )** 4 Jets Front, 8 Jets Back, 4 Jets Radial	**HPF36-( )** 1 Jet Front, 8 Jets Back, 4 Jets Radial

HOW TO ORDER

EXAMPLE: HPF12-9 describes a **SIZE #1** nozzle (left column) having **PATTERN #2** (top row) and a **#9 FLOW RATING** (chart on reverse).

Custom drilled **Type HPM** nozzles are also available. Call our Toll Free number for information.

PATTERNS / SIZES (Nozzles shown true size)		1	2	3	4	5	6
1 1/4"-28 RH .475" Dia.		**HPM11-( )** 1 Jet Front, 6 Jets Back	**HPM12-( )** 1 Jet Front, 8 Jets Back	**HPM13-( )** 4 Jets Front, 6 Jets Back	**HPM14-( )** 4 Jets Front, 8 Jets Back	**HPM15-( )** 3 Jets Front, 6 Jets Back, 3 Jets Radial	**HPM16-( )** 1 Jet Front, 6 Jets Back, 3 Jets Radial
2 3/8"-24 RH .550" Dia.		**HPM21-( )** 1 Jet Front, 6 Jets Back	**HPM22-( )** 1 Jet Front, 8 Jets Back	**HPM23-( )** 4 Jets Front, 6 Jets Back	**HPM24-( )** 4 Jets Front, 8 Jets Back	**HPM25-( )** 4 Jets Front, 6 Jets Back, 4 Jets Radial	**HPM26-( )** 1 Jet Front, 6 Jets Back, 4 Jets Radial

HOW TO ORDER

EXAMPLE: HPM12-9 describes a **SIZE #1** nozzle (left column) having **PATTERN #2** (top row) and a **#9 FLOW RATING** (chart on reverse).

Custom drilled **Type HPM** nozzles are also available. Call our Toll Free number for information.

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TUBE CLEANING NOZZLES

TYPE HPF - HIGH PRESSURE FEMALE NOZZLE - 20,000 PSI
TYPE HPM - HIGH PRESSURE MALE NOZZLE - 20,000 PSI

NOZZLE FLOW RATING

FLOW RATING NUMBER	GPM FLOW @													
	7000 PSI	8000 PSI	9000 PSI	10000 PSI	11000 PSI	12000 PSI	13000 PSI	14000 PSI	15000 PSI	16000 PSI	17000 PSI	18000 PSI	19000 PSI	20000 PSI
0	1.69	1.81	1.92	2.02	2.12	2.21	2.30	2.39	2.47	2.55	2.63	2.71	2.78	2.85
1	2.19	2.34	2.48	2.61	2.74	2.86	2.98	3.09	3.20	3.31	3.41	3.51	3.60	3.70
2	2.90	3.10	3.29	3.47	3.64	3.80	3.95	4.10	4.24	4.38	4.52	4.65	4.78	4.90
3	3.54	3.79	4.02	4.23	4.44	4.64	4.83	5.01	5.19	5.36	5.52	5.68	5.84	5.99
4	4.25	4.54	4.82	5.08	5.33	5.56	5.79	6.01	6.22	6.42	6.62	6.81	7.00	7.18
5	6.07	6.49	6.89	7.26	7.61	7.98	8.28	8.59	8.89	9.18	9.47	9.74	10.00	10.27
6	7.72	8.25	8.75	9.24	9.68	10.11	10.52	10.92	11.30	11.67	12.03	12.38	12.72	13.05
7	9.01	9.64	10.22	10.77	11.30	11.80	12.28	12.75	13.19	13.63	14.05	14.45	14.85	15.24
8	9.84	10.52	11.16	11.76	12.33	12.88	13.41	13.91	14.40	14.87	15.33	15.77	16.21	16.63
9	10.70	11.44	12.13	12.79	13.41	14.01	14.58	15.13	15.66	16.18	16.68	17.16	17.63	18.09

The **Nozzle Flow Rating** is a number which defines the **flow** and **pressure** characteristics of the nozzle. This **Flow Rating** determines the size of the nozzle's orifice.

Select **Nozzle Flow Rating** from the chart above by finding the *flow* (corresponding to your pump's capacity) in the column under the *desired operating pressure.* Read across to **Nozzle Flow Rating** in the chart's left hand column.

Example (shaded area): Nozzles having a **Flow Rating** of **6** will produce **13,000 psi @ 10.52 GPM.**

These **Flow Ratings** correspond to those widely used in the waterblast industry.

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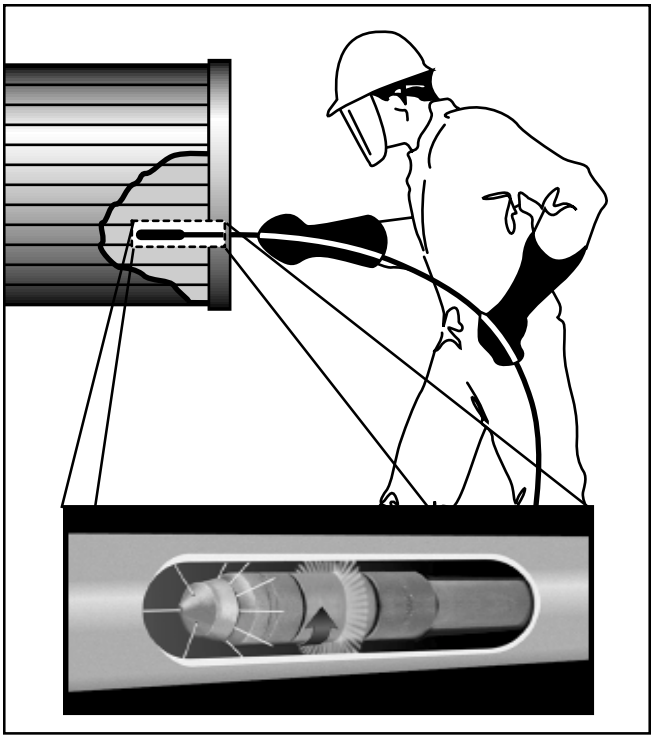
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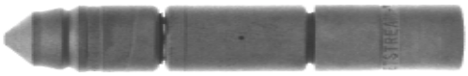
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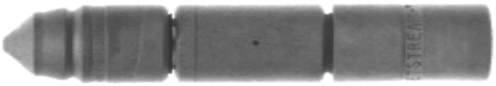
TUBE SPINNING NOZZLES

15,000 psi

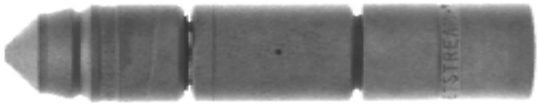




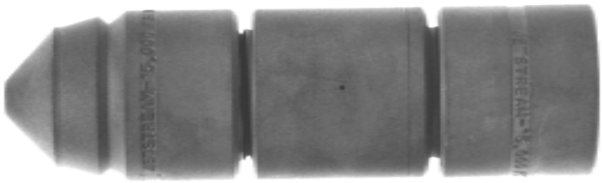
1/16" NPT THD, .375" OD (3/8" OD), 15,000 psi. (Shown true size)



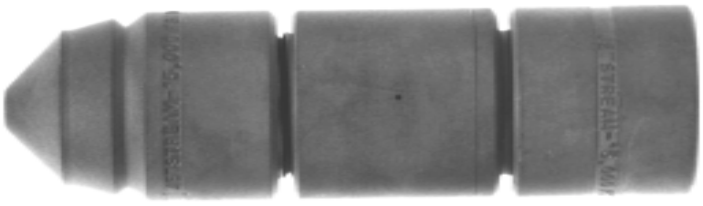
1/8" NPT THD, .500" OD (1/2" OD), 15,000 psi. (Shown true size)



1/4" NPT THD, .665" OD (5/8" OD), 15,000 psi. (Shown true size)



3/8" NPT THD, .875" OD (7/8" OD), 15,000 psi. (Shown true size)



1/2" NPT THD, 1.04" OD (1-1/16" OD), 15,000 psi. (Shown true size)

FEATURES:

The 100,000 rpm speed of the Tube Spinning Nozzles completely eliminates streaking and reduces the number of holes required for tube cleaning. This gives the existing orifices extra hitting and cleaning power. The Tube Spinning Nozzles shown at right are 15,000 psi rated (shown here with FP nozzles), have the same diameter as standard flex lance nozzles, and are available in 5 sizes.

SPECIFICATIONS:

SIZE AND ASSEMBLY NUMBER	ASSEMBLY PART NO.	BODY AND NOZZLE THREAD	OUTSIDE DIAMETER	AVAILABLE NOZZLES (not included)	SLEEVE PART NO.	OPERATING PRESSURE (PSI)	SLEEVE VOLUME (GPM)	ASSEMBLY LENGTH (with FP nozzle)
1/16" #1	52146	1/16" NPT	.375"	FP-1; E-0	52141	15,000	2 - 4	2.50"
1/16 #2	52147	1/16 NPT	.375"	FP-1; E-0	52142	15,000	3 - 6	2.50"
1/8" #1	51997	1/8" NPT	.500"	FP-3; E-1	51992	15,000	3 -6	2.60"
1/8" #2	51998	1/8" NPT	.500"	FP-3; E-1	51993	15,000	6 -11	2.60"
1/4" #1	52002	1/4" NPT	.665"	FP-4; E-2	51922	15,000	3 - 6	2.92"
1/4" #2	52003	1/4" NPT	.665"	FP-4; E-2	51923	15,000	6 - 12	2.92"
3/8" #1	52007	3/8" NPT	.875"	FP-5; E-3	51926	15,000	4 - 8	3.05"
3/8" #2	52008	3/8" NPT	.875"	FP-5; E-3	51927	15,000	8 - 16	3.05"
1/2" #1	52012	1/2" NPT	1.04"	FP-6; E-4	51941	15,000	6 - 12	3.60"
1/2" #2	52013	1/2" NPT	1.04"	FP-6; E-4	51942	15,000	10 - 20	3.60"

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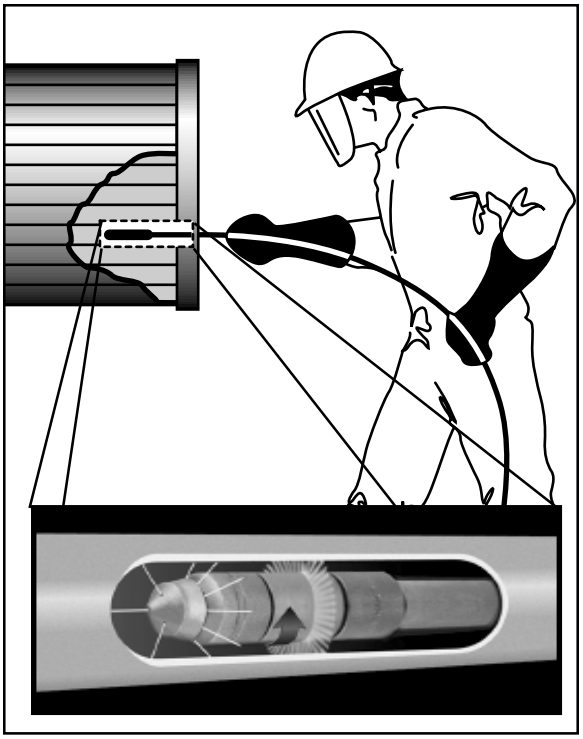
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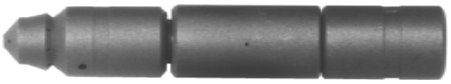
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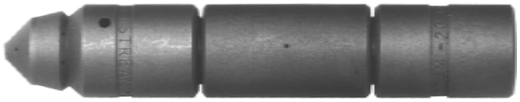
TUBE SPINNING NOZZLES

20,000 psi

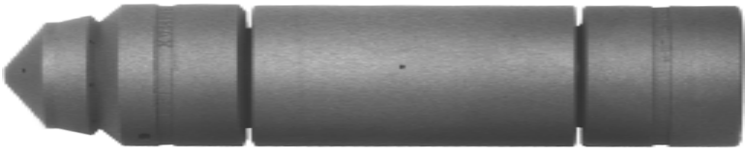




1/4"-28 RH THD, .375" OD (3/8" OD), 20,000 psi. (Shown true size)



3/8"-24 RH THD, .500" OD (1/2" OD), 20,000 psi. (Shown true size)



9/16"-18 RH THD, .750" OD (3/4" OD), 20,000 psi. (Shown true size)

FEATURES:

The 100,000 rpm speed of the Tube Spinning Nozzles completely eliminates streaking and reduces the number of holes required for tube cleaning. This gives the existing orifices extra hitting and cleaning power. The Tube Spinning Nozzles shown above are 20,000 psi rated (shown here with HPF nozzles), have the same diameter as standard flex lance nozzles, and are available in 3 sizes.

SPECIFICATIONS:

SIZE	ASSEMBLY PART NO.	BODY AND NOZZLE THREAD	OUTSIDE DIAMETER	AVAILABLE NOZZLES (not included)	SLEEVE PART NO.	OPERATING PRESSURE (PSI)	SLEEVE VOLUME (GPM)	ASSEMBLY LENGTH (with FP nozzle)
1/4"	52018	1/4"-28 UNF	.375"	HPF-1	51956	20,000	2 - 4	2.40"
3/8"	52021	3/8"-24 UNF	.500"	HPF-2	51958	20,000	3 - 5.5	2.76"
9/16"	52548	9/16"-18 UNF	.750"	HPF-3	52551	20,000	5 - 10	3.74"

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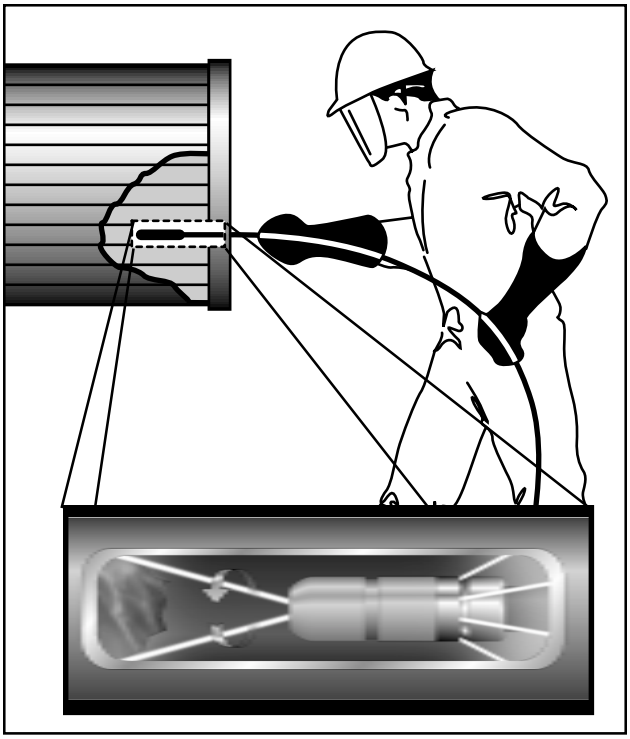
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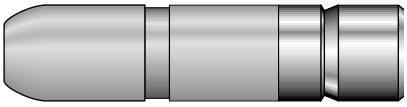
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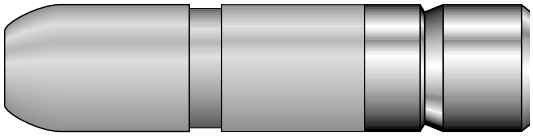
DRIL-JET TUBE SPINNING NOZZLES

15,000 psi **Patent Pending**

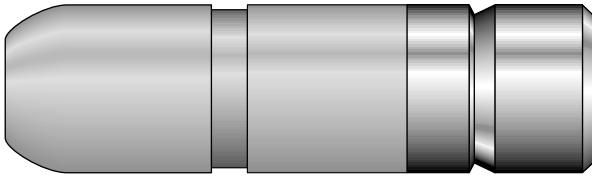




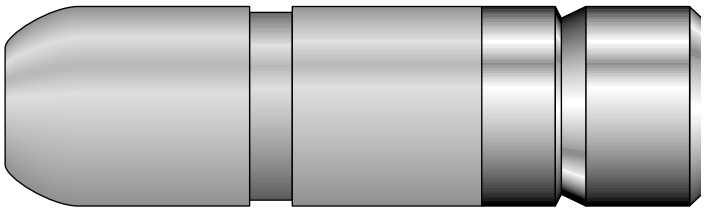
1/8" NPT THD, .50" OD (1/2" OD), 15,000 psi. (Shown true size)



1/4" NPT THD, .660" OD (5/8" OD), 15,000 psi. (Shown true size)



3/8" NPT THD, .875" OD (7/8" OD), 15,000 psi. (Shown true size)



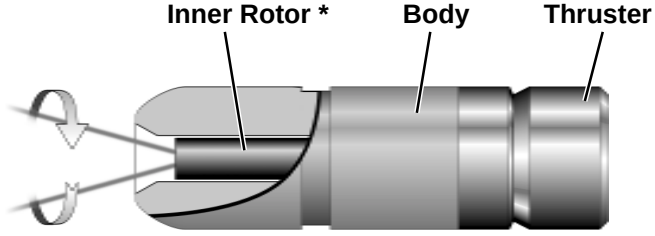
1/2" NPT THD, 1.04" OD (1-1/16" OD), 15,000 psi. (Shown true size)

FEATURES:

Jetstream's new Dril-Jet is the latest advancement in spin nozzle technology. This highly productive tool is the only one of its kind. Two powerful internal front jets rotate and drill through fouled or plugged tubes (the Dril-Jet contains no external moving components). Rear thrusters flush debris as it pulls the lance through the tube. Can be used with both flexible or rigid lances. Dril-Jets have the same diameter as standard flex lance nozzles and are available in 4 sizes for pressures to 15,000 psi and 2 sizes for pressures to 20,000 psi.

SPECIFICATIONS:

SIZE	ASSEMBLY PART NO.	OUTSIDE DIAMETER	ASSEMBLY LENGTH	BODY PART NO.	THRUSTER PART NO.	INNER ROTOR PART NO.	FLOWRATE @ 15,000 psi (GPM)	OPERATING PRESSURE (PSI)
1/8" NPT	52850	.50"	2.09"	52847	52849	52852	6.2	15,000
1/4" NPT	52930	.660"	2.74"	52957	52952	52954	11.1	15,000
3/8" NPT	52855	.875"	3.06"	52848	52851	52854	16.2	15,000
1/2" NPT	52865	1.040"	3.63"	52858	52857	52859	24.2	15,000



* The Dril-Jet contains no external moving components and only one internal moving part - the Inner Rotor which has two precision drilled orifices producing forward jets, spins at a high rate of speed to "drill out" fouled or plugged tubes.

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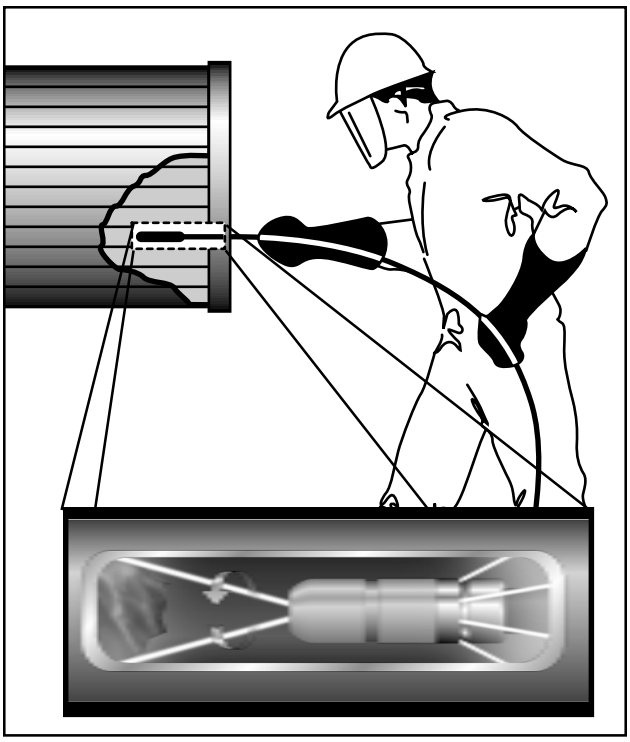
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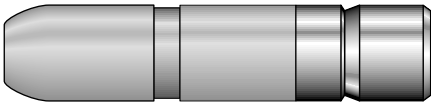
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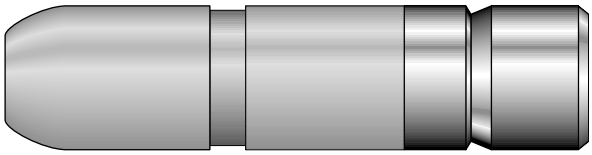
DRIL-JET TUBE SPINNING NOZZLES

20,000 psi **Patent Pending**





3/8"-24 RH THD, .500" OD (1/2" OD), 20,000 psi. (Shown true size)



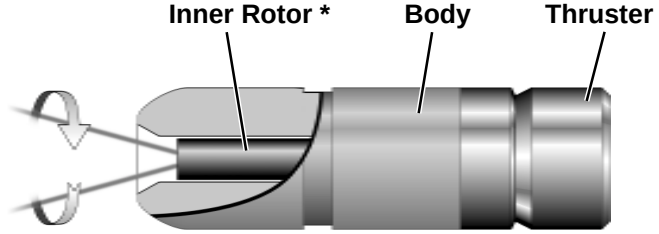
9/16"-18 RH THD, .750" OD (3/4" OD), 20,000 psi. (Shown true size)

FEATURES:

Jetstream's new Dril-Jet is the latest advancement in spin nozzle technology. This highly productive tool is the only one of its kind. Two powerful internal front jets rotate and drill through fouled or plugged tubes (the Dril-Jet contains no external moving components). Rear thrusters flush debris as it pulls the lance through the tube. Can be used with both flexible or rigid lances. Dril-Jets have the same diameter as standard flex lance nozzles and are available in 4 sizes for pressures to 15,000 psi and 2 sizes for pressures to 20,000 psi.

SPECIFICATIONS:

SIZE AND BODY THREAD	ASSEMBLY PART NO.	OUTSIDE DIAMETER	ASSEMBLY LENGTH	BODY PART NO.	THRUSTER PART NO.	INNER ROTOR PART NO.	FLOWRATE @ 20,000 psi (GPM)	OPERATING PRESSURE (PSI)
3/8"-24 UNF	52860	.50"	2.22"	52847	52856	52853	6.5	20,000
9/16"-18 UNF	52935	.75"	3.04"	52956	52953	52954	15.4	20,000



* The Dril-Jet contains no external moving components and only one internal moving part - the Inner Rotor which has two precision drilled orifices producing forward jets, spins at a high rate of speed to "drill out" fouled or plugged tubes.

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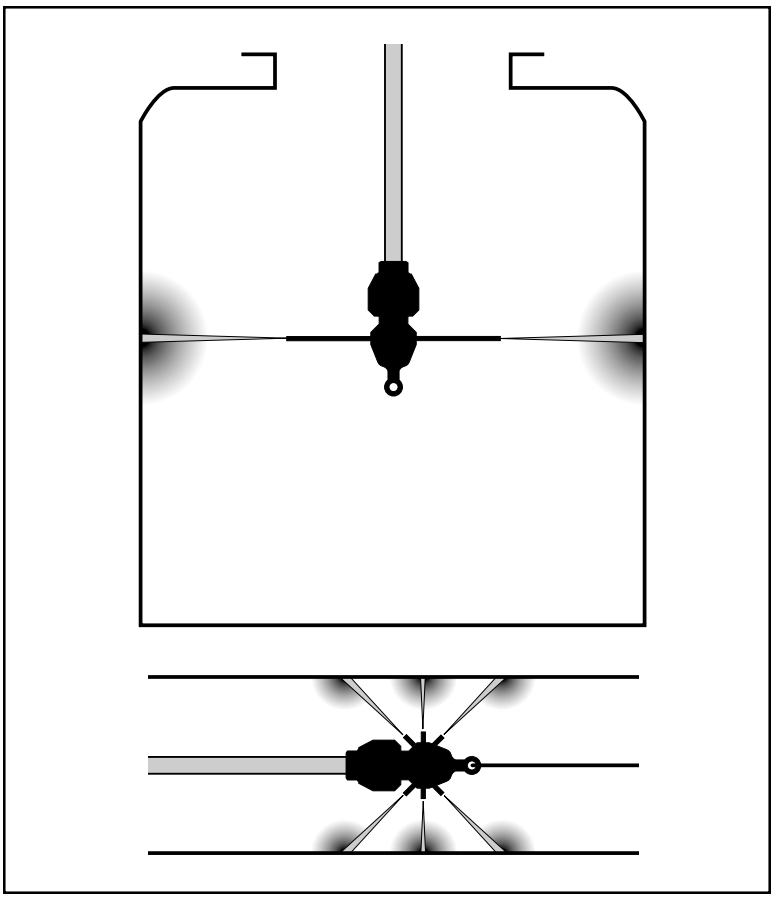
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ROTOMAG 2-D

15,000 psi





I. FEATURES:

The RotoMag 2-D is a self-powered rotating nozzle that uses straight-pattern tungsten carbide nozzles and is designed for cleaning stacks, sewer lines, drains, tanks, autoclaves and other large diameter pipes.

The RotoMag 2-D features a magnetic braking system to control rotational speed, is completely field repairable in under 5 minutes, can clean pipes ranging from 3 1/2" I.D. up to 18 feet and has 3 nozzle angles that can be used in any combination (45° forward, 90° and 45° backward). The RotoMag's field overhaul kit can fit in your pocket and requires no special tools. Three nozzle extension options are also available to increase your waterblasting productivity.

Centralizers are available upon request (call Jetstream for details).

II. SPECIFICATIONS:

ASSEMBLY PART NO.	CONNECTION THREAD	MAXIMUM FLOW	REBUILD KIT PART NO.	ASSEMBLY SIZE	ASSEMBLY WEIGHT	RPM RANGE	MAXIMUM OPERATING PRESSURE (PSI)
52300	3/4" NPT	55 GPM	52430	2-3/4" x 7-3/8"	6 lbs	50 - 250 RPM	15,000

Part No. 52320-05 **5" Total Assy. Dia. Nozzle Extension Assembly** (see following page for details)
Part No. 52320-10 **10" Total Assy. Dia. Nozzle Extension Assembly** (see following page for details)
Part No. 52320-15 **15" Total Assy. Dia. Nozzle Extension Assembly** (see following page for details)

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ROTOMAG 2-D NOZZLES AND ACCESSORIES

NOZZLE FLOW RATING

NOZZLE NUMBER	GPM FLOW FOR BOTH NOZZLES @				
	5000 PSI	7500 PSI	10000 PSI	12500 PSI	15000 PSI
3	6.8	7.9	8.8	9.5	10.5
4	7.8	9.0	10.6	12.3	12.9
5	11.2	12.5	14.3	16.1	17.9
6	13.2	15.5	18.8	20.7	22.5
7	15.2	18.0	21.8	23.7	26.0
8	16.2	19.5	23.3	25.5	28.5
9	17.2	21.0	25.3	27.7	31.0
10	19.7	24.0	28.3	31.2	35.5
12	21.6	25.4	30.8	33.7	37.5
14	25.2	30.5	36.8	40.7	45.5
15	27.2	33.0	39.8	44.2	—
20	39.2	46.0	—	—	—

ROTOMAG 2-D NOZZLES



The **RM Nozzles** (shown above at actual size) come in a variety of sizes and are available in Tungsten Carbide and Sapphire orifice insert. Call your Jetstream representative for more information.

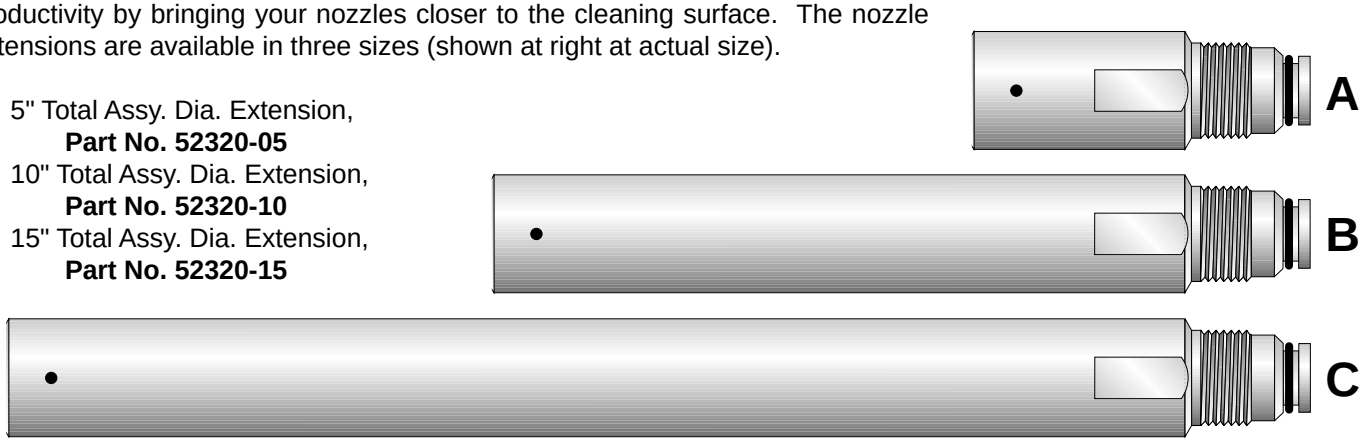
RM Nozzle extensions are also available (see below).

The **Nozzle Flow Rating** is a number which defines the **flow** and **pressure** characteristics of the nozzle. This **Flow Rating** determines the size of the nozzle's orifice.
Select **Nozzle Flow Rating** from the chart above by finding the *flow* (corresponding to your pump's capacity) in the column under the *desired operating pressure.* Read across to **Nozzle Number** in the chart's left hand column.
Example (shaded area): Nozzle number 7 will produce 15,000 psi @ 26.0 GPM.

ROTOMAG ACCESSORIES

Three nozzle extension options are available to increase your waterblasting productivity by bringing your nozzles closer to the cleaning surface. The nozzle extensions are available in three sizes (shown at right at actual size).

A. 5" Total Assy. Dia. Extension,
Part No. 52320-05
B. 10" Total Assy. Dia. Extension,
Part No. 52320-10
C. 15" Total Assy. Dia. Extension,
Part No. 52320-15



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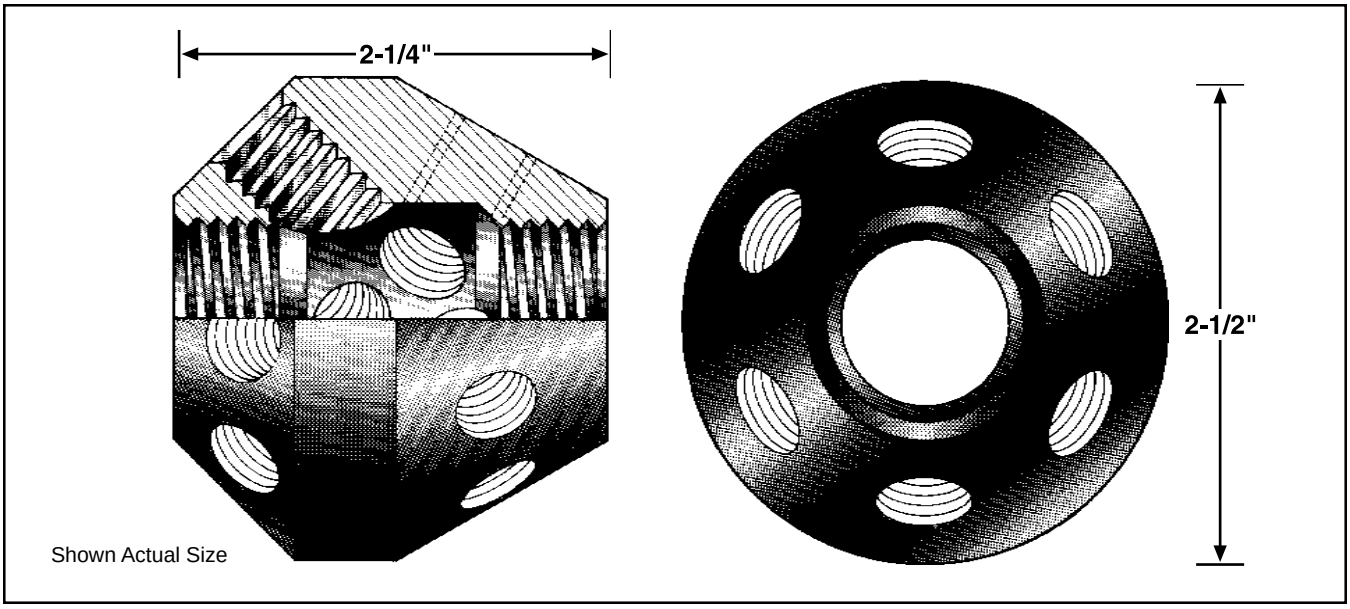
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PIPE CLEANING NOZZLE HEAD

FOR LARGE DIAMETER PIPE, 3/4" NPT CONNECTION



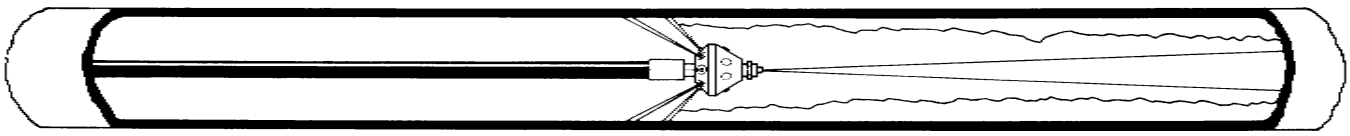
Shown Actual Size

USE AND FEATURES

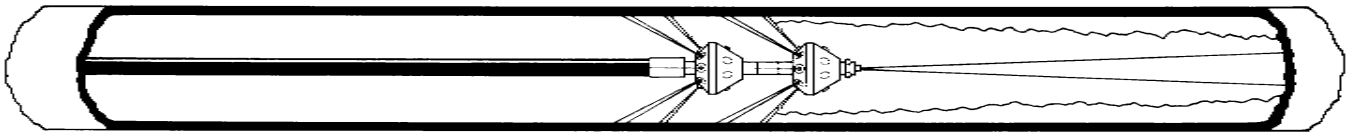
For thorough cleaning of **large diameter pipes** (greater than 4"), these cleaning heads may be used singly or several may be combined for complete blast coverage. Cleaning head features **six** 1/4" NPT threaded holes at 30° and **six** at 45°. Front and rear connections are 3/4" NPT. Cleaning head is made of hardened stainless steel.

APPLICATIONS

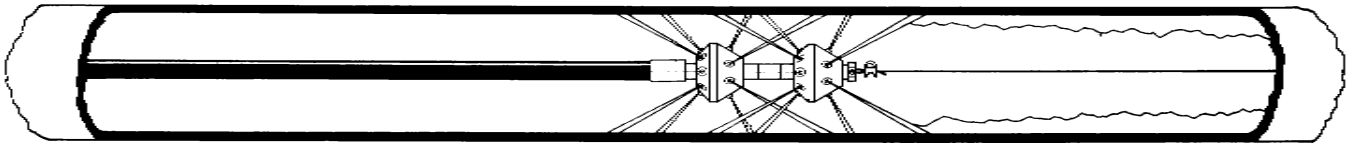
Single



Multiple



Towline



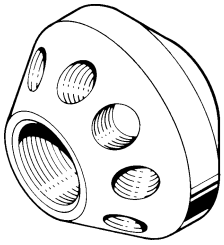
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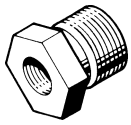
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PIPE CLEANING NOZZLE HEAD

FOR LARGE DIAMETER PIPE, 3/4" NPT CONNECTION



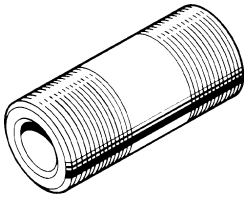
Cleaning Head, No. 51094



*** * Bushing,** 3/4" x 1/4", NPT, No. 26069
*** * Bushing,** 3/4" x 1/2", NPT, No. 26065



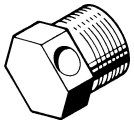
*** Nozzle**, straight or fan



*** * Nipple,** 3/4" x 4", NPT, No. 26146



Plug, 1/4" NPT, No. 25392



Towing Eye/Plug, 3/4" NPT, No. 51156

* For nozzle selection refer to: **SURFACE CLEANING NOZZLES, TYPE S-STANDARD.**

** For complete fitting assortment refer to: **HIGH PRESSURE FITTINGS-NPT.**

Use of the versatile system components shown above will permit the construction of a **custom cleaning head assembly** based on specific cleaning requirements.

Assembled components may be "towed" through pipe by using the Towing Eye/Plug (above) or nozzles may be arranged to "self-propel" the assembly through the pipe.

Refer to illustrations on the front of this sheet for suggested applications.

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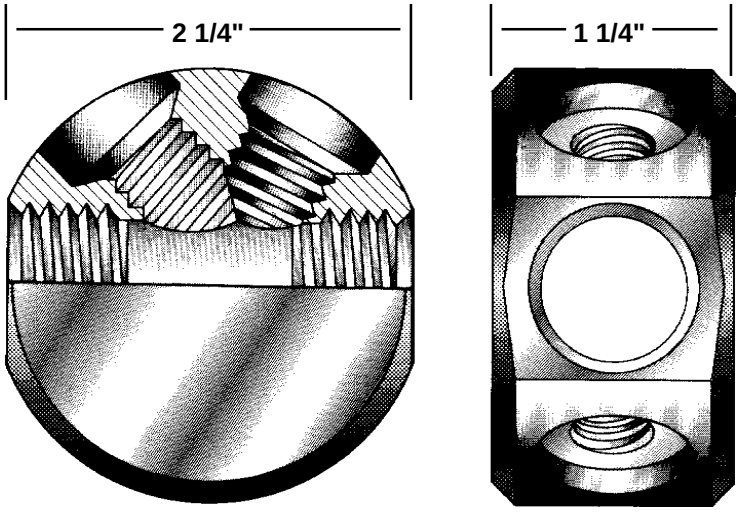
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PIPE CLEANING NOZZLE HEAD

FOR LARGE DIAMETER PIPE, 1/2" NPT CONNECTION

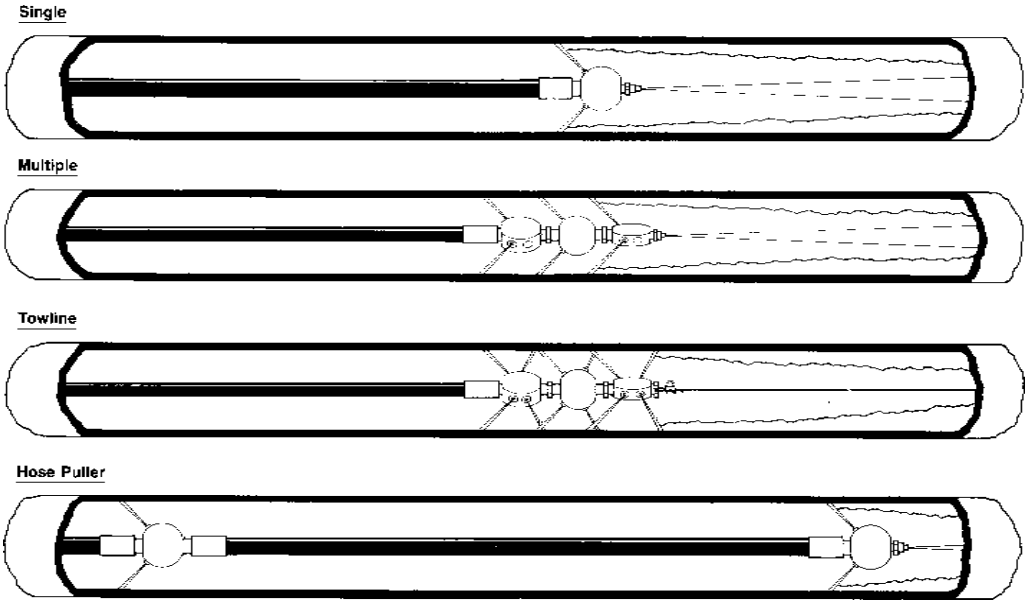


Shown Actual Size

USE AND FEATURES

For thorough cleaning of **large diameter pipes** (greater than 4"), "Waferline" cleaning head modules may be used singly or several may be combined for complete blast coverage. Each module features **two** 1/4" NPT threaded holes at 30°, **two** at 45° and 1/2" NPT connections at front and rear. Nozzles install nearly flush to prevent "hang-up" when cleaning head is retracted from pipe. Lightweight module weighs 15 ounces. Module is made of hardened stainless steel.

APPLICATIONS

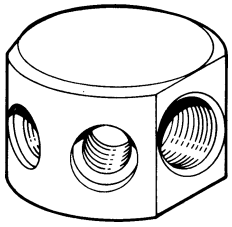


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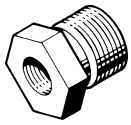
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PIPE CLEANING NOZZLE HEAD

FOR LARGE DIAMETER PIPE, 1/2" NPT CONNECTION



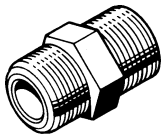
Cleaning Head, No. 51096



*** * Bushing,** 1/2" NPT, No. 25904



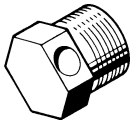
*** Nozzle**, straight or fan



*** * Hex Nipple,** 1/2" NPT, No. 50488



Plug, 1/4" NPT, No. 25392



Towing Eye/Plug, 1/2" NPT, No. 51169

* For nozzle selection refer to: **SURFACE CLEANING NOZZLES, TYPE S-STANDARD.**

** For complete fitting assortment refer to: **HIGH PRESSURE FITTINGS-NPT.**

Use of the versatile system components shown above will permit the construction of a **custom cleaning head assembly** based on specific cleaning requirements.

Assembled components may be "towed" through pipe by using the Towing Eye/Plug (above) or nozzles may be arranged to "self-propel" the assembly through the pipe. Additionally, the "Waferline" modular head may be used in place of high pressure hose couplings to assist in moving hose through pipe.

Refer to illustrations on the front of this sheet for suggested applications.

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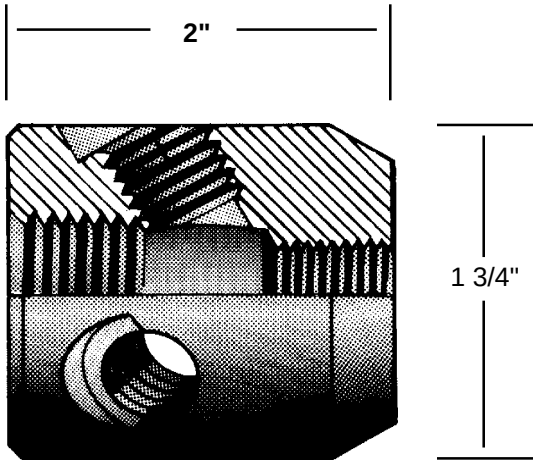
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PIPE CLEANING NOZZLE HEAD

FOR LARGE DIAMETER PIPE, 1/2" NPT CONNECTION



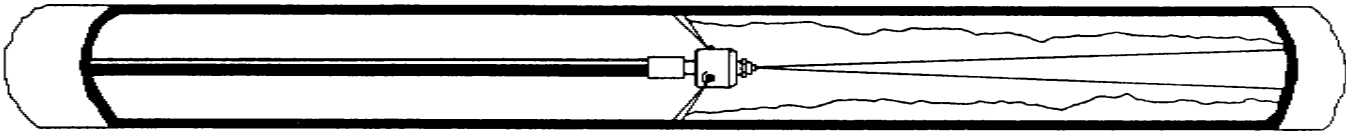
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USE AND FEATURES

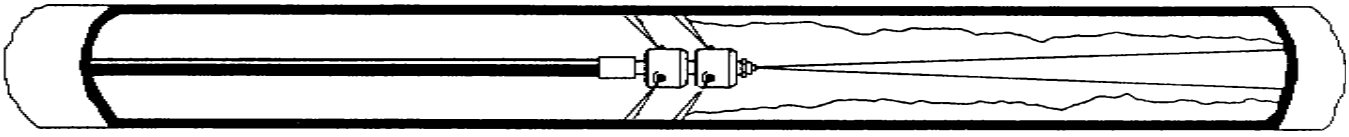
For thorough cleaning of pipes (as small as 2-1/2"), these cleaning heads may be used singly or several may be combined for complete blast coverage. Cleaning head features **three** 1/4" NPT threaded holes back at 45° and **one** forward. Rear connection is 1/2" NPT. Cleaning head is made of hardened stainless steel.

APPLICATIONS

Single



Multiple



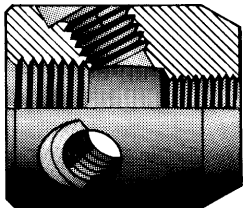
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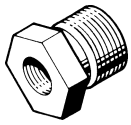
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PIPE CLEANING NOZZLE HEAD

FOR LARGE DIAMETER PIPE, 1/2" NPT CONNECTION



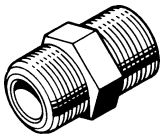
Cleaning Head, No. 50512



*** * Bushing,** 1/2" x 3/8", NPT, No. 26062
*** * Bushing,** 1/2" x 1/4", NPT, No. 25904



*** Nozzle**, straight or fan



*** * Reducing Hex Nipple,**
1/2" x 1/4", NPT, No. 26084



Plug, 1/4" NPT, No. 25392

* For nozzle selection refer to: **SURFACE CLEANING NOZZLES, TYPE S-STANDARD.**

** For complete fitting assortment refer to: **HIGH PRESSURE FITTINGS-NPT.**

Use of the versatile system components shown above will permit the construction of a **custom cleaning head assembly** based on specific cleaning requirements.

Refer to illustrations on the front of this sheet for suggested applications.

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