



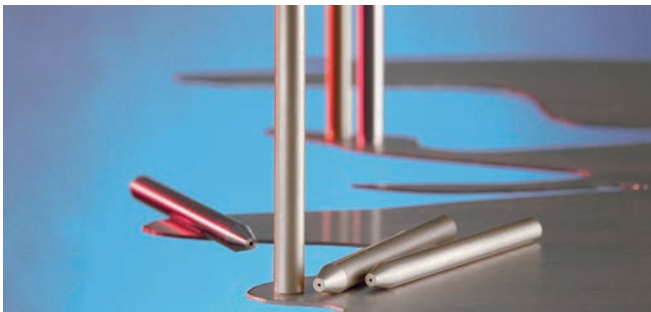
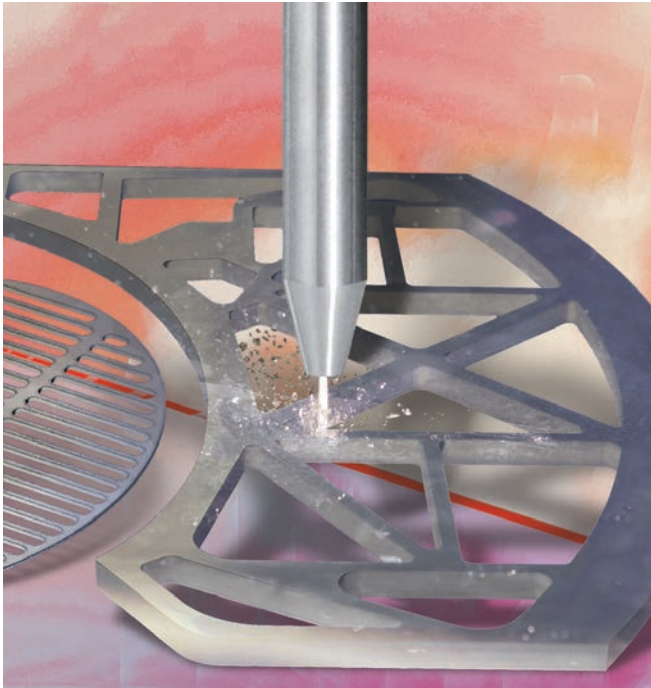
If you are interested or have any questions, please get in touch with AHB Tooling & Machinery Roseville, MI (800)991-4225 or visit www.ahbinc.com

Focusing tubes for abrasive water jet cutting

Extreme pressures of up to 6,200 bar and high exit speeds of up to around 1,000 m/sec make water an optimum cutting tool for temperature-intensive and thick materials with complex geometries.

Specifically developed carbide grades provide very good wear protection of the focusing tubes as well as consistently high cutting quality. Thanks to the 3-line concept for every application field there is a suitable solution: Economy, Standard and Premium.





Sectors, applications

- General mechanical engineering
- Automotive industry
- Aerospace
- Packaging industry
- Medical systems
- Electric industry

Materials

- Optimal for a variety of materials: metallic materials, stone, ceramic, plastics, composites, materials for sealings and food
- Material thickness up to 150 mm can be machined

Products

- Focusing tubes

Carbide properties

- Long tool life
- Consistent cutting performance
- Optimal relation between hardness and toughness

Finish

- Ready-to-use – 3-line concept
 - Economy
 - Standard
 - Premium

Unlike the thermal procedures, water jet cutting is free of waste gases and emissions. It also avoids playing thermal stress on the component (water jet cutting is carried out at room temperature) and tension on the component (only low forces are applied during the cutting procedure).

The cutting head

When it comes to water jet cutting, the key component is the focusing tube in the cutting head. It provides an accurate jet and thereby ensures process security and a consistently high quality of the cut.

Our focusing tubes are manufactured with comprehensive know-how and long-standing experience. They are characterized by close drilling tolerances, a perfect grind and concentricity.

The focusing tubes are suitable for all modern cutting head systems and support their automatic centring during mounting. The entire service package includes technical advice, well-assorted stocks and short lead times.

Composition and properties

CT grade code	Application	Binder [m %]	Density [g/cm ³]	Hardness HV10	Transverse rupture strength	
					[MPa]	[P.S.I.]

Nano-grades

UMG01		0,40	15,55	2675	2400	348.000
CTN01L		0,25	15,60	2825	2000	290.000

Comments:

- The data in this table are typical material parameters. We reserve the right to modify the data due to technical progress or due to further development within our company.

Ordering description for focusing tubes

WJNS 0714 - 102 - 0762 - 25 - 15R UMG01



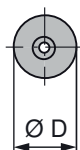
1

Type

- WJNR = Economy
- WJNS = Standard
- WJNP = Premium

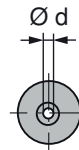
2

External diameter



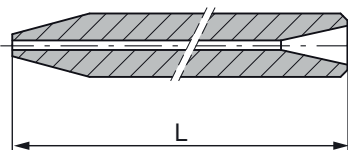
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Internal diameter



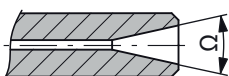
4

Length



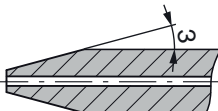
5

Type



6

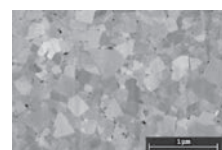
External taper



- 15. = angle
- ...R = ring
- ...S = special
- ...M = mixing chamber
- ...Q = square

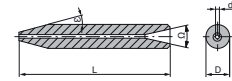
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Grade



Focusing tubes - Economy

UMG01

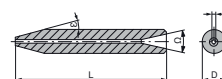


Type, description	Material	[mm]	[mm]	[mm]	UMG01
WJNR 0635-076-0762-25-15	11783235	6.35	0.76	76.2	●
WJNR 0635-102-0762-25-15	11783236	6.35	1.02	76.2	●
WJNR 0714-076-0762-25-15	11783240	7.14	0.76	76.2	●
WJNR 0714-102-0762-25-15	11783242	7.14	1.02	76.2	●

● = stock item

Focusing tubes - Standard

UMG01



Type, description	Material	[mm]	[mm]	[mm]	UMG01
WJNS 0600-120-0700-25-15	11469017	6.00	1.20	70.0	○
WJNS 0635-076-0762-25-15	6234852	6.35	0.76	76.2	●
WJNS 0635-091-0762-25-15	6261074	6.35	0.91	76.2	●
WJNS 0600-102-0700-25-15	6260218	6.00	1.02	70.0	○
WJNS 0600-102-0762-25-15	6234938	6.00	1.02	76.2	○
WJNS 0714-076-0762-25-15	6234943	7.14	0.76	76.2	●
WJNS 0714-091-0762-25-15	11557017	7.14	0.91	76.2	○
WJNS 0714-102-0762-25-15	6210224	7.14	1.02	76.2	●
WJNS 0714-102-1016-25-15	6248003	7.14	1.02	101.6	●
WJNS 0762-102-0762-25-15	6225154	7.62	1.02	76.2	●
WJNS 0797-076-1016-25-15	6234841	7.97	0.76	101.6	●
WJNS 0812-091-0762-25-15	11254622	8.12	0.91	76.2	●
WJNS 0812-102-0762-25-15	6282927	8.12	1.02	76.2	●
WJNS 0900-076-0762-40-15M	6254177	9.00	0.76	76.2	●
WJNS 0943-076-0762-25-15	6234942	9.43	0.76	76.2	●
WJNS 0943-102-0762-25-15	6219026	9.43	1.02	76.2	●
WJNS 0943-109-0790-25-15	11525265	9.43	1.09	79.0	○
WJNS 0600-076-0700-25-15	11179461	6.00	0.76	70.0	●
WJNS 0634-076-0750-14-0	11260179	6.34	0.76	75.0	●

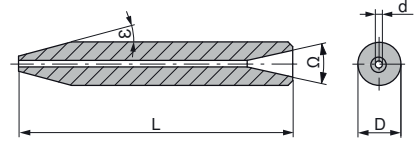
● = stock item

○ = limited stock or upon request

Other dimensions upon request

Focusing tubes - Premium

CTN01L



Type, ordering description	Material	Ø D [mm]	Ø d [mm]	L [mm]	CTN01L
WJNP 0635-076-0762-25-15	11796308	6,35	0,76	7,62	●
WJNP 0635-091-0762-25-15	11796315	6,35	0,91	7,62	○
WJNP 0635-102-0762-25-15	11796309	6,35	1,02	7,62	○
WJNP 0714-076-0762-25-15	11796311	7,14	0,76	7,62	○
WJNP 0714-076-1016-25-15	11796327	7,14	0,76	10,16	○
WJNP 0714-102-0762-25-15	11796304	7,14	1,02	7,62	○
WJNP 0714-102-1016-25-15	11796312	7,14	1,02	10,16	○
WJNP 0762-102-0762-25-15	11796310	7,62	1,02	7,62	○
WJNP 0797-076-1016-25-15	11796319	7,97	0,76	10,16	○
WJNP 0943-076-0762-25-15	11796316	9,43	0,76	7,62	○
WJNP 0943-102-0762-25-15	11796318	9,43	1,02	7,62	○

- = stock item
- = limited stock or upon request