

## JETTING & CEMENTING NOZZLE



### TOOL APPLICATIONS

The **Jetting Nozzle** has five ports (5P) located at the bottom of the nozzle, which allows for sufficient flow rate to achieve optimal annular velocities. The Minimum ID value used in the table below indicates the size of each port.

The nozzle can be used for spotting chemicals and lifting a well with Nitrogen.

The **Cementing Nozzle** has a single large port (1P), located at the bottom of the nozzle. The Minimum ID indicated in the table below, is the diameter of the port. When used for cementing, cement is pumped from surface to the downhole location, via the CT and out through the nozzle.

The nozzle is as large as possible to minimise shear of the cement as it passes through the nozzle. The nozzle can also be used for spotting chemicals, circulating the well and lifting a well with Nitrogen.

There are no O-rings or sealing elements in both the nozzle, so there are no temperature range limitations.

### FEATURES AND BENEFITS

- Customised Nozzles can be supplied to suit client needs
- Simple, robust design ensuring ease of operation for the end user
- Hexagonal flats for safe make-up & break-out
- Connection options to suit customer requirements
- Corrosion resistant materials

### SPECIFICATIONS

Technical Variable	Units	Size					
		1 11/16"		2 1/8"		2 7/8"	
		Jetting	Cementing	Jetting	Cementing	Jetting	Cementing
Max OD	in	1.687	1.687	2.125	2.125	2.875	2.875
Min ID*	in	0.250	0.656	0.250	1.000	0.375	1.500
Connection	Box	1" AMMT		1 1/2" AMMT		2 3/8" PAC DSI	
Make Up Length	in	5.00	4.50	5.00	4.84	5.94	6.50
Weight	lbs	2.03	1.81	2.93	2.82	5.75	6.81
Total Flow Area	in <sup>2</sup>	0.245	0.338	0.245	0.785	0.552	1.766
Strength	SWL	47,745		72,900		121,140	
	Yield	53,050		81,000		134,600	
	UTS	66,312		101,250		168,250	
	Torsional	510		1,128		4,327	
Make Up Torque	ft.lbs	500		900		3,250	
Jetting Nozzles	note	4 x 45° @ 0.25" and 1 x 0° @ 0.25" ports				4 x 45° @ 0.375" and 1 x 0° @ 0.375" ports	

Taranaki Thru Tubing Tools can provide, on request, all configurations of ports and tool connections to suit specific customer requirements and provide engineering simulations and calculations.