

## Master Specifications

**TDI Reference:** #64455

**Description:** Horizontal Boring, Drilling, Milling Machine

**Manufacturer:** Union

**Model:** PC 150

**Year:** 2000 (In Service 2015)

**Control Type:** Heidenhain iTNC 430

**Tool Carrier (Spindle):**

<b>Mainspindle</b>		
Boring spindle diameter	mm	150
Number of gear steps		2
Speed range I. gear step	rpm	5 ... 782
II. gear step		783 ... 2.800
Main drive power (S1 duty)	kW	37
Main drive power (S6 duty, 60% ED)	kW	50
Max. torque at spindle	Nm	2.500
Main cutting force	kN	30
X-axis (transverse travel)	mm	10.000
Y-axis (vertical travel)	mm	3.500
Z-axis (lengthwise travel)	mm	800
W-axis (boring-spindle travel)	mm	750
Max. feed power X, Z, W	KN	25
Max. feed power Y=2000	KN	25
Y=2500		23
Y=3000		20
Y=3500		16
Feed rate X, Y, Z, W	mm/min	0...6.000
Rapid feed rate X, Y, Z, W	m/min	15

**Tooling:**

The machine is suitable to locate tools of steep taper ISO 50 and tools with steep-taper shank DIN 69871 type AD with bore for axial coolant supply and retention knob 1“-8 UNC-2A .

Current on hand

- Allied APX drills for hole opening of 3”, 3.25”, 3.50”, 3.75”
- Allied APX pilot drill, 1-5/8’ diameter
- Allied CT40 Long Length Opening Drill
- 10” Right Handed Sandvik 360 shear cutter

**Tool Change Mechanism (*not currently functional*):**

Number of magazine pockets			40	
Max. tool diameter				
- with occupied adjacent pockets		mm	125	
- with unoccupied adjacent pockets		mm	250	
Max. tool length		mm	500	
Max. tool weight		kg	30	
Total weight permitted of all tools		kg	600	

**Coolant Capacity:**

- reservoir of 980 litres capacity
- 50 l/min at approx. 3 bar through three jet pipes at spindle head, to be enabled and controlled individually
- filter 30 µm
- recirculation circuit for weekend operation
- swarf conveyor with coolant sump
- additional high-pressure pump 28 l/min at 20 bar