

Octagonal cone zero locator

A new high-precision and high clamping production technology for machining centers



Octagonal cone zero locator

Product features:

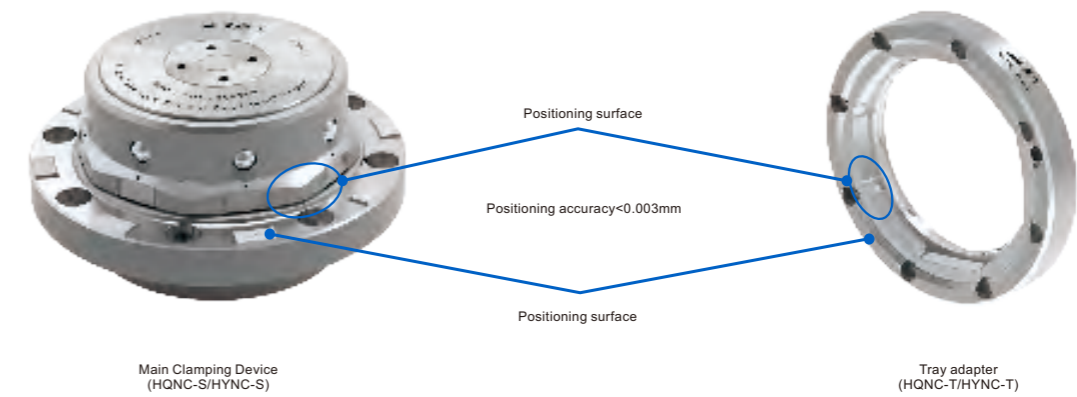
- Pneumatic/hydraulic unlocking, spring mechanical locking;
- Material: Hardened stainless steel;
- Repetitive positioning accuracy<0.003mm;
- Equipped with clamping and loosening detection interfaces;
- Eight sided constraint, suitable for single use;
- There are air holes on the positioning surface, which can be automatically cleaned

Applicable industry:

- Suitable for automation;
- Suitable for use in lathes, CNC, and four axis machining;
- Suitable for occasions with high requirements for centering accuracy, axial force, and centrifugal force.



- The octahedral cone can form X, Y, axis octahedral binding and reference seat surface (Z-axis) binding, achieving high-precision centering and high rigidity clamping;
- The displacement caused by thermal expansion can occur uniformly from the center outward, reducing the impact on the centering accuracy and achieving high precision in secondary machining based on the center.

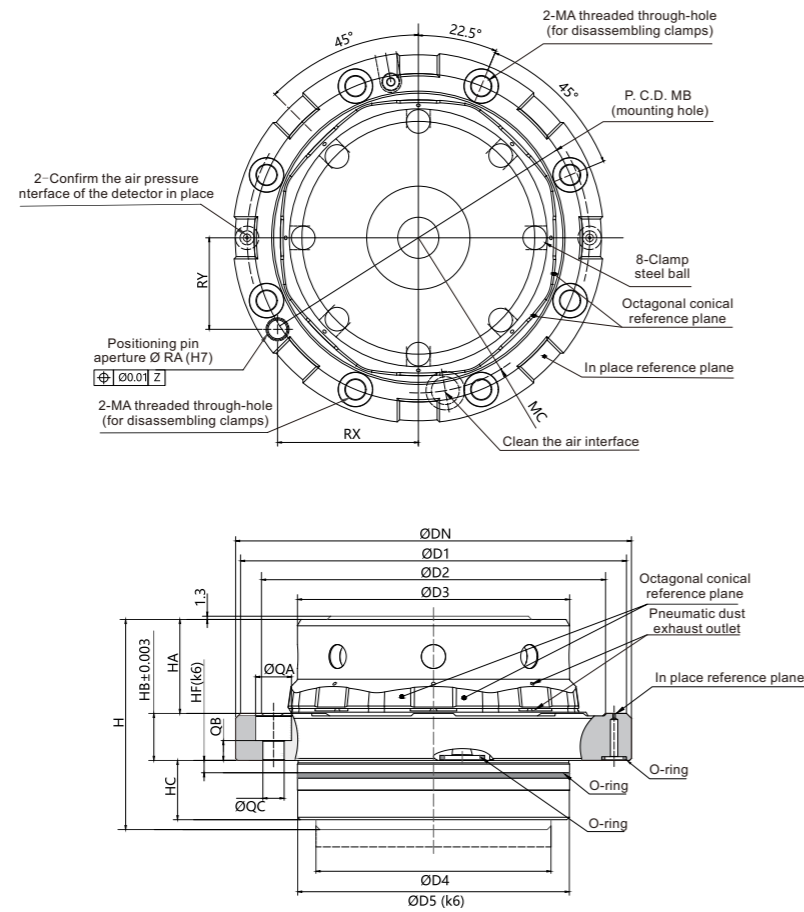


Main parameter table:

Model	Pneumatic type				Hydraulic type				
	HQNC-10	HQNC-20	HQNC-40	HQNC-60	HYNC-10	HYNC-20	HYNC-40	HYNC-60	
Clamping force (kN)	3.5	5	8	15	10	16	25	40	
Lift force	Air pressure 0.6MPa (kN)	0.5	0.5	1	1.5	/			
	Hydraulic pressure 3.5MPa (kN)	/				1.5	3.2	4.6	4.5
	Hydraulic pressure 5MPa (kN)	/				5.7	9.8	15.3	20.1
	Hydraulic pressure 7MPa (kN)	/				11.4	18.7	29.4	40.9
Allowable eccentricity during pallet clamping (mm)	±1	±1	±1	±1.5	±1	±1	±1	±1.5	
Lift amount (lift amount of tray when relaxed) (mm)	0.3								
Environmental temperature for use (°C)	0~70								
Weight	Main clamp (kg)	1.8	3.4	6.8	12	1.8	3.4	6.8	12
	Tray adapter (kg)	0.4	0.8	1.6	3	0.4	0.8	1.6	3

Outline dimension diagram

※ Main clamp



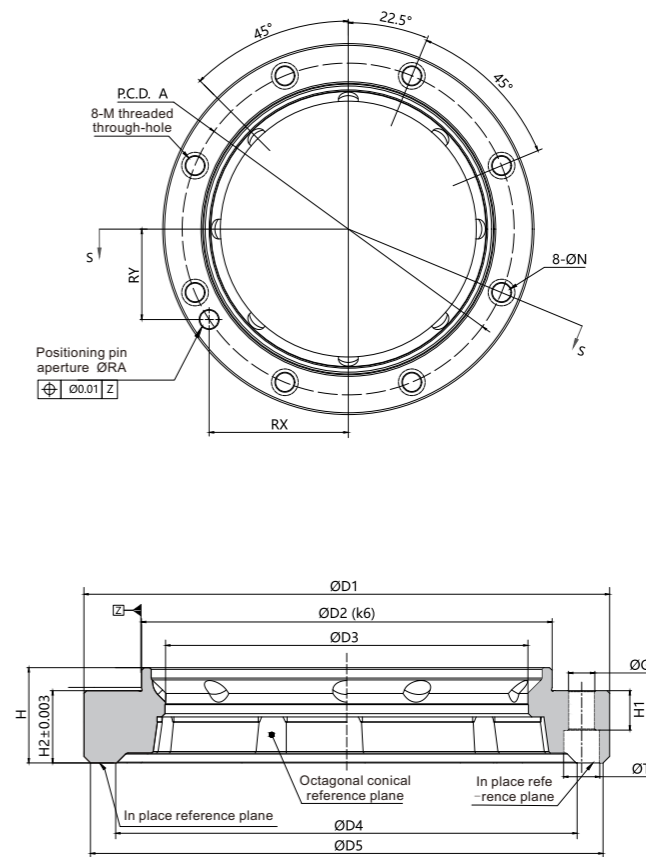
Main parameter table:

Order Number	$\varnothing DN$	$\varnothing D1$	$\varnothing D2$	$\varnothing D3$	$\varnothing D4$	$\varnothing D5$	H	HA	HB	HC
HQNC-S-10 HYNC-S-10	100	97	89	70	60	74	55	21	12	21
HQNC-S-20 HYNC-S-20	125	121	111	86	75	89	71.5	29	15	21
HQNC-S-40 HYNC-S-40	160	156	140	110	95	110	82	38	19	24
HQNC-S-60 HYNC-S-60	200	194	178	142	115	130	92.5	41	23	25

Order Number	HF	$\varnothing QA$	QB	$\varnothing QC$	MA	MB	MC	$\varnothing RA (H7)$	RX (± 0.01)	RY (± 0.01)
HQNC-S-10 HYNC-S-10	4.4	9.5	5.5	5.5	M6*1	89	R43.5	5	38	25
HQNC-S-20 HYNC-S-20	4.4	11	6.5	6.8	M8*1.25	110	R55	6	47	31
HQNC-S-40 HYNC-S-40	4.4	14	7	8.5	M10*1.5	140	R67	8	60	39
HQNC-S-60 HYNC-S-60	4.4	17.5	11	11	M12*1.75	175	R81.5	10	77	49

Outline dimension diagram

※ Tray adapter



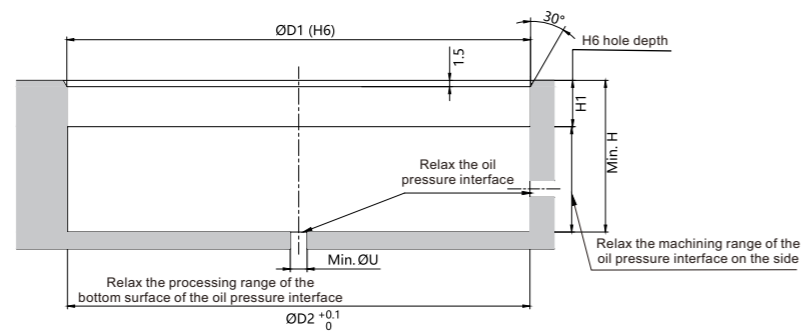
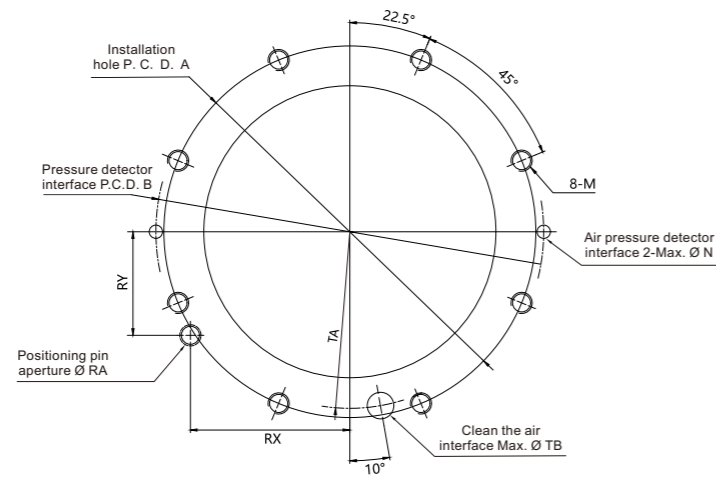
Main parameter table:

Order Number	$\varnothing D1$	$\varnothing D2$	$\varnothing D3$	$\varnothing D4$	$\varnothing D5$	H	H1	H2
HQNC-T-10 HYNC-T-10	100	82	70.3	89	97	21	7.5	15
HQNC-T-20 HYNC-T-20	125	100	86.3	111	121	26	10	19
HQNC-T-40 HYNC-T-40	160	125	110.3	140	156	29	12	22
HQNC-T-60 HYNC-T-60	200	166	142.3	178	194	35	15	28

Order Number	A	$\varnothing G$	$\varnothing N$	M	$\varnothing T$	$\varnothing RA (H7)$	RX (± 0.01)	RY (± 0.01)
HQNC-T-10 HYNC-T-10	90	4.5	4.5	M5*0.8	8	5	38	25
HQNC-T-20 HYNC-T-20	113	5.5	5.5	M6*1	9.5	6	47	31
HQNC-T-40 HYNC-T-40	143	6.8	6.8	M8*1.25	11	8	60	39
HQNC-T-60 HYNC-T-60	180	9	9	M10*1.5	14	10	77	49

Installation dimension diagram

※ Main clamp



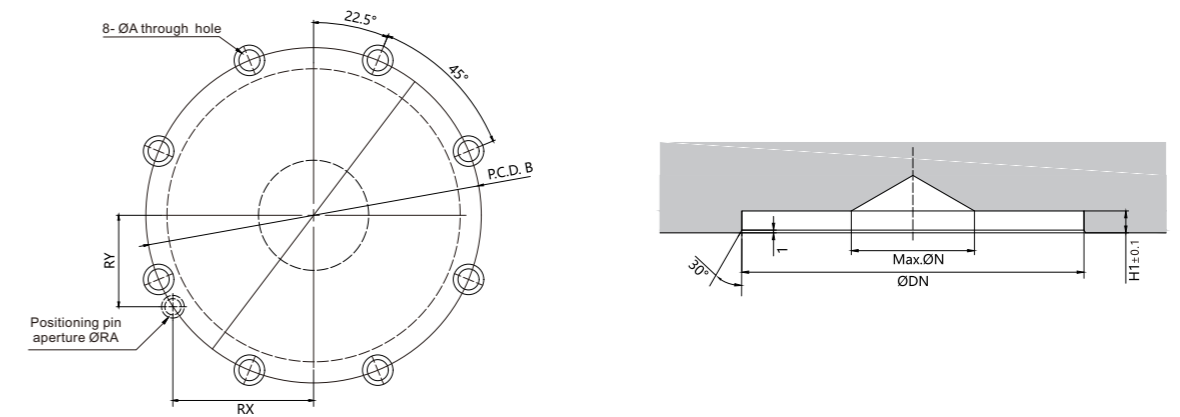
Main parameter table:

Order Number	ØD1	ØD2	A	B	H	H1	M	ØN	ØU	TA	ØTB	ØRA (H7)	RX (±0.01)	RY (±0.01)
HQNC-S-10 HYNC-S-10	74	73.7	89	90	28	11	M5	2.5	3	R43.5	5	5	38	25
HQNC-S-20 HYNC-S-20	89	88.7	110	115	30	11	M6	2.5	3	R55	5	6	47	31
HQNC-S-40 HYNC-S-40	110	109.9	140	146	32	13	M8	5	4	R67	10	8	60	39
HQNC-S-60 HYNC-S-60	130	129.7	175	186	37	15	M10	5	4	R81.5	10	10	77	49

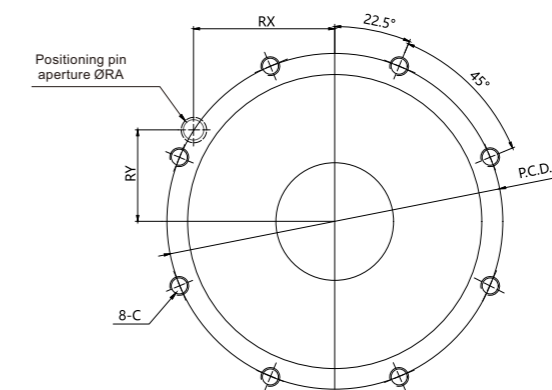
Installation dimension diagram

※ Tray adapter

Bolt locking installation method:



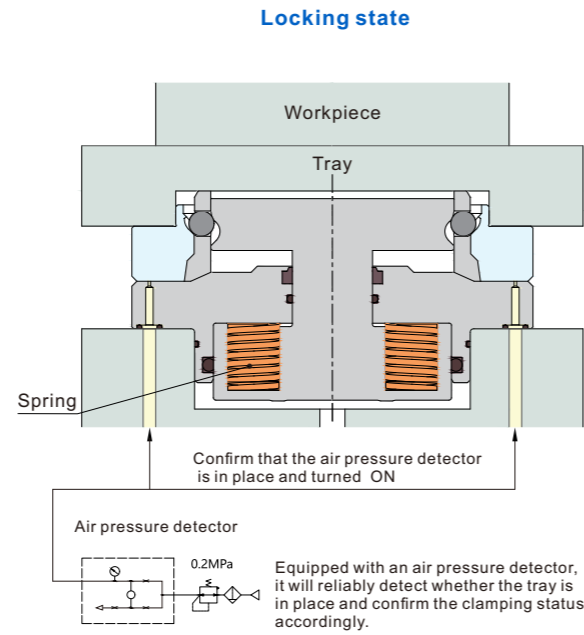
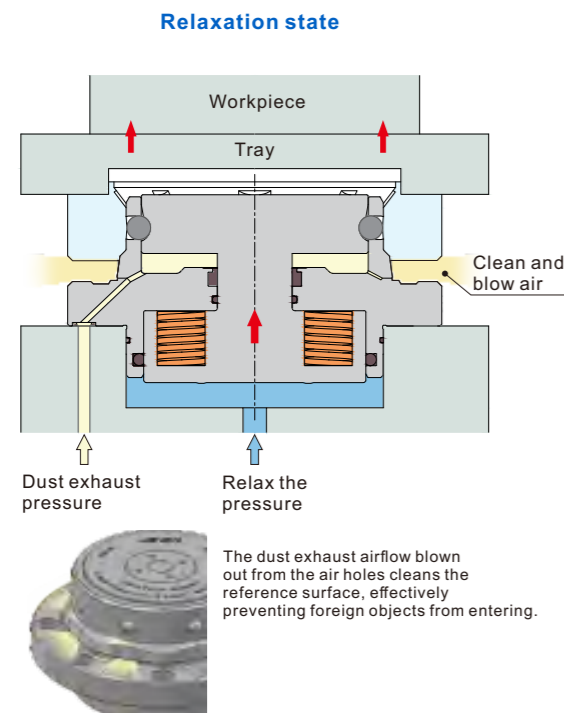
Installation method of bolt lock:



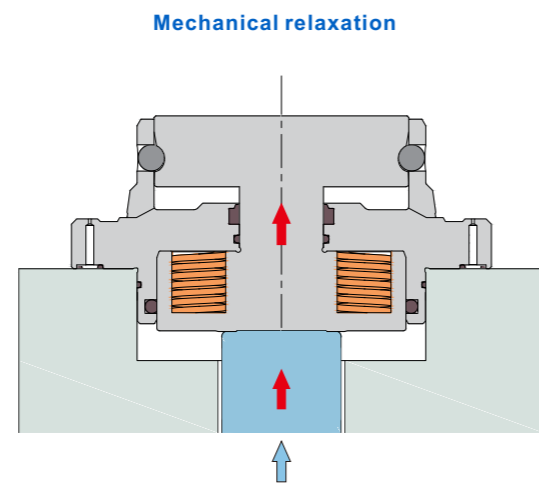
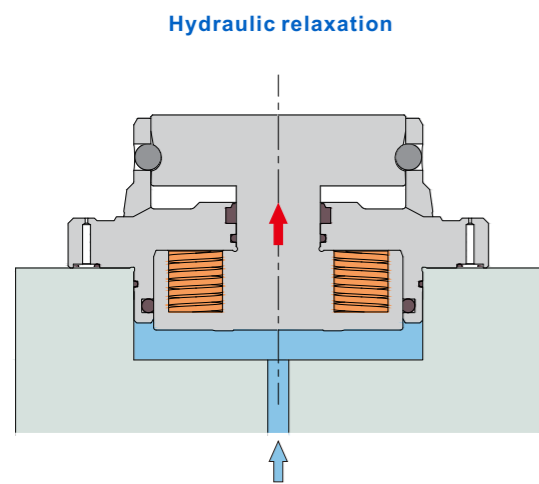
Main parameter table:

Order Number	ØDN (H6)	ØA	B	C	H1	ØN	ØRA (H7)	RX (±0.01)	RY (±0.01)
HQNC-T-10 HYNC-T-10	82	5.5	90	M4	10	50	5	38	25
HQNC-T-20 HYNC-T-20	100	6.8	113	M5	14	65	6	47	31
HQNC-T-40 HYNC-T-40	125	9	143	M6	17	80	8	60	39
HQNC-T-60 HYNC-T-60	166	11	180	M8	17	120	10	77	49

Principle of Action



Relaxation methods



Working principle

