EAGLE STARS

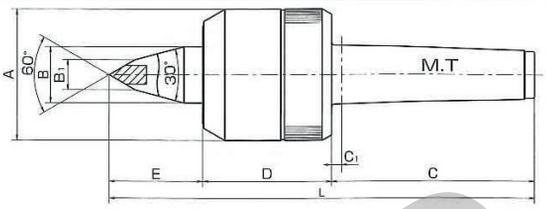
Live Center

EAGLE STARS

ROLLING CENTERS

MODEL NC70

Type A



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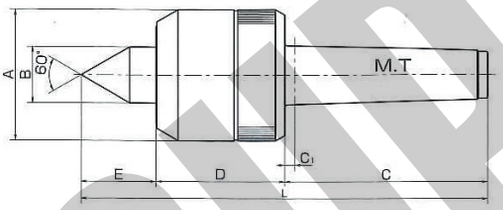
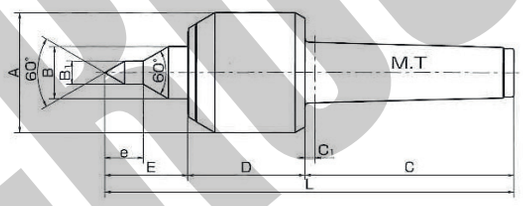


ROLLING CENTERS

MODEL NCF

Type A



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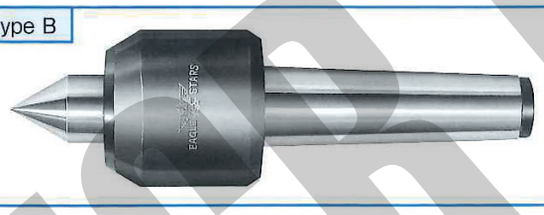

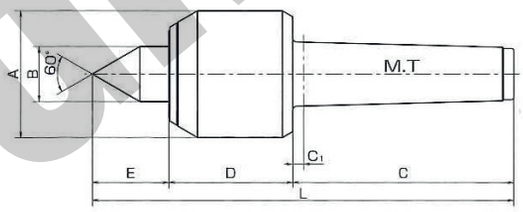

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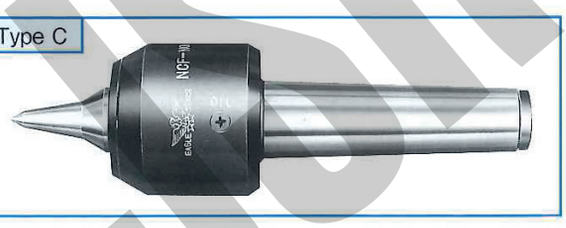

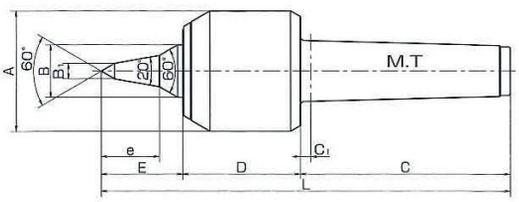

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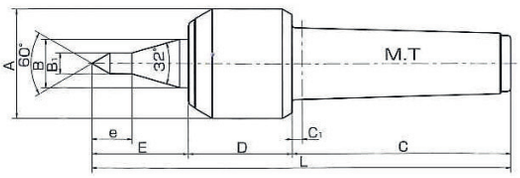
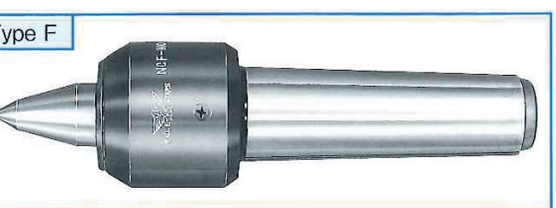
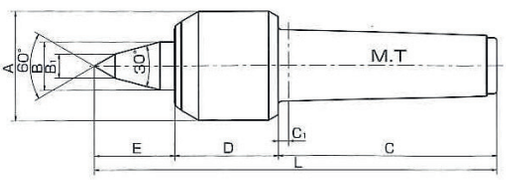


Type F





EAGLE STARS

Main Specifications of Model NC70

Unit : mm

Code No.	M.T	Type	A	B	B_1	C	C_1	D	E	Carbide Tip	L	Center Runout (Max.)
NC73-021	No.3	A	53	22	15	85	5	54.5	32.5	10	172	TIR 0.003
NC74-021	No.4	A	70	30	16	108	5.3	68.5	50	10	226.5	
NC75-021	No.5	A	82	36	20	136	6.3	75	55	14	266	
NC73-002	No.3	B	53	22	—	85	5	54.5	32.5	—	172	
NC74-002	No.4	B	70	30	—	108	5.3	68.5	40	—	216.5	
NC75-002	No.5	B	82	36	—	136	6.3	75	50	—	261	

(Dimensions are subject to change due to design modifications.)

Features

- Designed for superhigh speed (7000min^{-1}) and high accuracy (TIR 0.003).
- The carbide tip is used at the nose to ensure durability against wear and friction during superhigh speed operation. (Type A)
- Designed and assembled with extreme care to provide high rigidity, using three duplex angular bearings and a needle bearing.
- The unique labyrinth mechanism (contactless) for protection against penetration of cutting oil has eliminated wear, friction and power loss, and minimized temperature rise of the machine, resulting in upgraded accuracy, increased service life and enhanced reliability.

Main Specification of Model NCF

Unit : mm

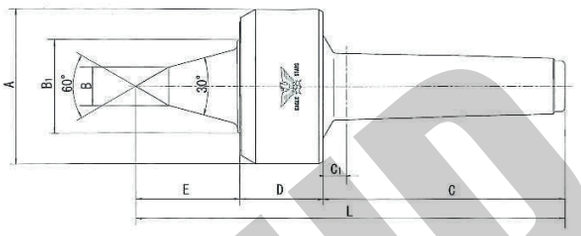
Code No.	M.T	Type	A	B	B_1	C	C_1	D	E	e	L	CenterRunout (Max.)
NCF3-001	No.3	A	53	22	12	85	4.5	52.5	36	20	173.5	TIR 0.003
NCF4-001	No.4	A	62	27	12	108	5.3	60.5	43	20	211.5	
NCF5-001	No.5	A	68	30	14	136	6.3	64.5	46	22	246.5	
NCF3-002	No.3	B	53	22	—	85	4.5	52.5	32.5	—	170	
NCF4-002	No.4	B	62	27	—	108	5.3	60.5	37.5	—	206	
NCF5-002	No.5	B	68	30	—	136	6.3	64.5	41	—	241.5	
NCF4-003	No.4	C	62	27	8	108	5.3	60.5	42	30	210.5	
NCF5-003	No.5	C	68	30	8	136	6.3	64.5	46	30	246.5	
NCF5-004	No.5	E	68	30	13	136	6.3	64.5	60	25	260.5	
NCF5-005	No.5	F	68	30	15	136	6.3	64.5	50	—	250.5	

(Dimensions are subject to change due to design modifications.)
Also available with carbide tip.

Features

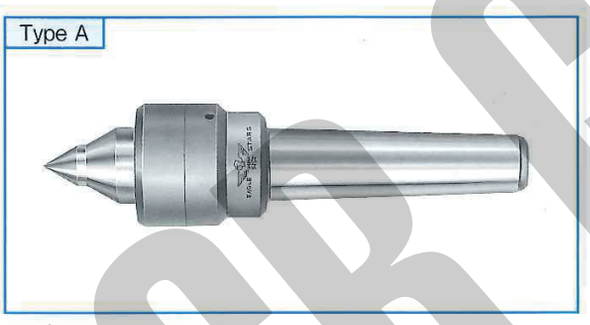
- Designed for high speeds (No.3 for 4500 min^{-1}, No.4 for 4000min^{-1}, No.5 for 3800min^{-1})
- Designed and assembled with extreme care to produce a great effect in accordance with the load and speed, using duplex angular, thrust and needle bearings.
- The unique labyrinth mechanism (contactless) for protection against penetration of cutting oil has eliminated wear, friction and power loss, and minimized temperature rise of the machine, resulting in upgraded accuracy, increased service life and enhanced reliabiliy.

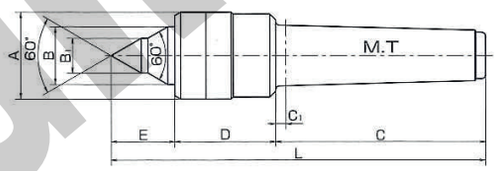
ROLLING CENTERS MODEL NCW



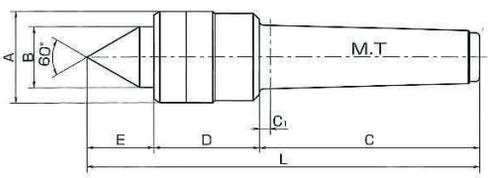
ROLLING CENTERS MODEL 100 WITH SEAL

Type A

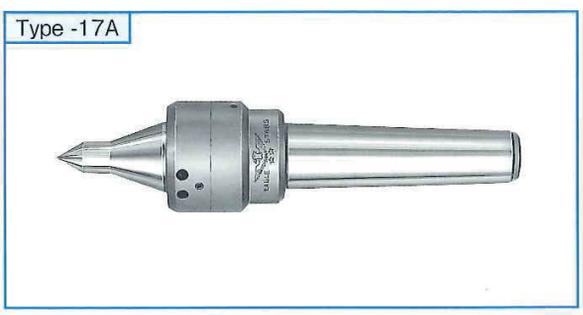


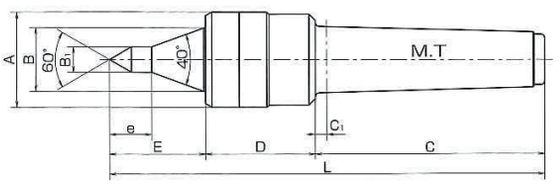


Type B



Type -17A





EAGLE STARS

Main Specification of Model NCW

Unit : mm

Code No.	M.T	A	B	B_1	C	C_1	D	E	L	Center Runout (Max.)
NCW3-001	No.3	64	15	36	91	10	36	43	170	TIR 0.005
NCW4-001	No.4	73	18	44	113.5	11	39	49	201.5	
NCW5-001	No.5	85	25	52	141.5	12	47	58	246.5	

(Dimensions are subject to change due to design modifications.)
Also available with carbide tip.

Features

- Designed for operating speeds (No.3 for 2500 min^{-1}, No.4 and No.5 for 2000 min^{-1}).
- Designed to provide higher durability against thrust load than other models.
- Incorporates duplex thrust, thrust and needle bearings.
- The unique labyrinth mechanism (contactless) for protection against penetration of cutting oil has eliminated wear, friction and power loss, and minimized temperature rise of the machine, resulting in upgraded accuracy, increased service life and enhanced reliability.
- Especially recommended for use with our work-driving center.

※Note: • This model has a range of approx. 0.5mm longitudinal travel in no-load operations, but it offers a good performance without trouble.

Main Specifications of Model 100 with Seal

Unit : mm

Code No.	Type No.	M.T	A	B	B_1	C	C_1	D	E	e	L	Center Runout (Max.)
R102-301	102A with seal	No.2	37	23	10	69	4	36.5	27.7	—	133.2	TIR 0.005
R103-301	103A with seal	No.3	41	26	14	85.5	4.5	42	31	—	158.5	
R104-301	104A with seal	No.4	45	30	18	108.5	5.3	52	33	—	193.5	
R103-302	103B with seal	No.3	41	26	—	85.5	4.5	42	31	—	158.5	
R104-302	104B with seal	No.4	45	30	—	108.5	5.3	52	33	—	193.5	
R105-302	105B with seal	No.5	65	42	—	138	6.3	65.9	47.6	—	251.5	
R103-317	103-17A with seal	No.3	41	26	12	85.5	4.5	42	40	20	167.5	
R104-317	104-17A with seal	No.4	45	30	12	108.5	5.3	52	45.5	20	206	

(Dimensions are subject to change due to design modifications.)
Also available with carbide tip.

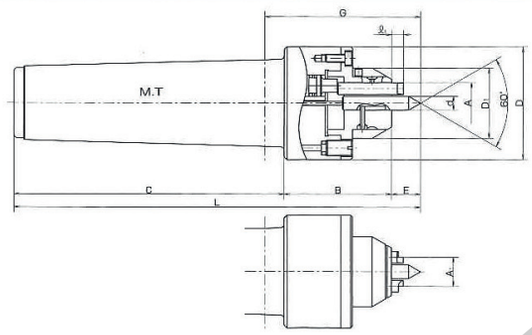
Features

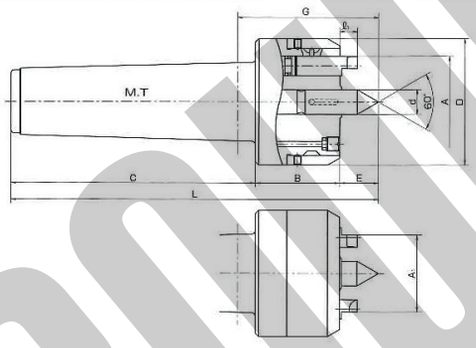
- Designed for operating speed (No.2 for 3500 min^{-1}, No.3 and No.4 for 3000 min^{-1}, No.5 for 2500 min^{-1})
- The reduced body diameter within the center angle of 60° is suitable for cutting small parts.
- Incorporates duplex thrust, thrust and needle bearings.
- The V seal is used for protection against penetration of cutting oil.

※Note: • This model has a range of approx. 0.5mm longitudinal travel in no-load operations, but it offers a good performance without trouble.
• When using the sealed model 100, its drain (scupper) should be securely installed downward.

EAGLE STARS

WORK-DRIVING CENTERS HYDRAULIC(HD)





Main Specifications of Hydraulic Model HD

Unit : mm

R / L	Code No.	Type No. Shank	OD	Forward/Reverse	Workpiece Diameter	A	A_1	B	C	D	D_1	d	E	※F	G	ℓ_1	L	Number of Jaws
R L	WDU3-151 -152	M.T 3	HD-15	R L	15 ~ 22	—	15	59	85	58	36	7	14.8	6	77.8	6	158.8	4
R L	WDU4-151 -152	M.T 4	HD-15	R L	15 ~ 22	—	15	59	106	58	36	7	14.8	6	77.8	6	179.8	4
R L	WDU5-151 -152	M.T 5	HD-15	R L	15 ~ 22	—	15	55	139	58	36	7	14.8	6	79.8	6	208.8	4
R L	WDU3-211 -212	M.T 3	HD-21	R L Common jaws	21 ~ 31	21	—	59	85	58	36	7	14.8	6	77.8	6	158.8	4
R L	WDU4-211 -212	M.T 4	HD-21	R L Common jaws	21 ~ 31	21	—	59	106	58	36	7	14.8	6	77.8	6	179.8	4
R L	WDU5-211 -212	M.T 5	HD-21	R L Common jaws	21 ~ 31	21	—	55	139	58	36	7	14.8	6	79.8	6	208.8	4
R L	WDU4-271 -272	M.T 4	HD-27	R L Common jaws	27 ~ 45	27	—	59	106	58	42	10	16	6	79	6	181	4
R L	WDU5-271 -272	M.T 5	HD-27	R L Common jaws	27 ~ 45	27	—	55	139	58	42	10	16	6	81	6	210	4
R L	WDU4-321 -322	M.T 4	HD-32	R L	32 ~ 54	—	32	48	110	56	—	12	20	11	76	10	178	5
R L	WDU5-321 -322	M.T 5	HD-32	R L	32 ~ 54	—	32	48	139	56	—	12	20	11	78	10	207	5
R L	WDU4-381 -382	M.T 4	HD-38	R L	38 ~ 64	38	—	48	110	56	—	12	20	11	76	10	178	5
R L	WDU5-381 -382	M.T 5	HD-38	R L	38 ~ 64	38	—	48	139	56	—	12	20	11	78	10	207	5
R L	WDU5-461 -462	M.T 5	HD-46	R L	46 ~ 78	—	46	48	139	72	—	14	22	11	80	10	209	6
R L	WDU5-521 -522	M.T 5	HD-52	R L	52 ~ 88	52	—	48	139	72	—	14	22	11	80	10	209	6
R L	WDU5-751 -752	M.T 5	HD-75	R L	75 ~ 130	75	—	65	139	97	—	20	30	16	105	15	234	6
R L	WDU5-101 -102	M.T 5	HD-100	R L	100 ~ 170	100	—	70	144	122	—	25	35	16	120	15	249	8

(Dimensions are subject to change due to design modifications.)

※ F = Diameter of Jaw

■ Runout of center to M.T (max.) :TIR0.01

The HD-15R jaw allows the HD-21L to be used. The HD-32R jaw allows the HD-38L to be used. The HD-46R jaw allows the HD-52L to be used.
The HD-15L jaw allows the HD-21R to be used. The HD-32L jaw allows the HD-38R to be used. The HD-46L jaw allows the HD-52R to be used.

■ Specify the direction of rotation, R for forward rotation and L for reverse. (Clockwise direction (L) and counterclockwise direction (R) facing the spindle)

Features

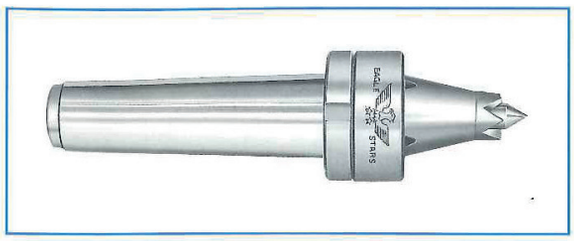
If a workpiece has some inclination on its end face, the jaws of this center are actuated accurately to hold the workpiece in even contact with its end face.

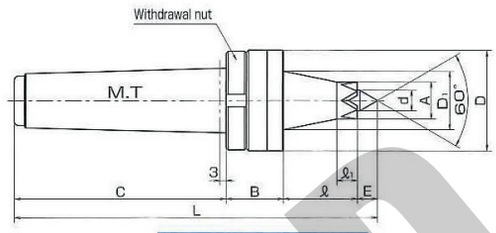
- Ensures high efficiency for center work without requiring lathe dogs.
- Grips the end face so that any workpiece can be finished from one end to the other in one pass without requiring any gripped area.
- Allows any workpiece to be machined up to its end without needing to reverse so that time is saved and uniform accuracy maintained.
- Allows any workpiece to be supported at a given position independently of its center hole size, and allows the length to be set because the end face is scratched only little.
- Requires no operation once installed to a lathe.
- Allows a workpiece to be installed or removed during rotation of a lathe spindle.

Model HD

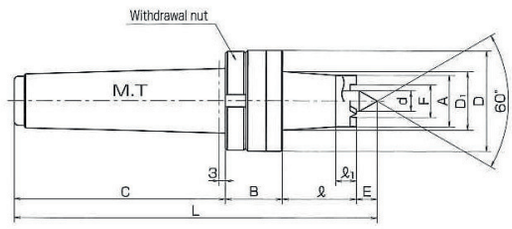
- The hydraulic mechanism for jaw operation ensures higher workpiece accuracy than the standard type.
- Uses high speed steel for the jaws and center shaft to improve durability.
- Especially recommended for use with NC machines.

WORK-DRIVING CENTERS FIXED JAW(DK)

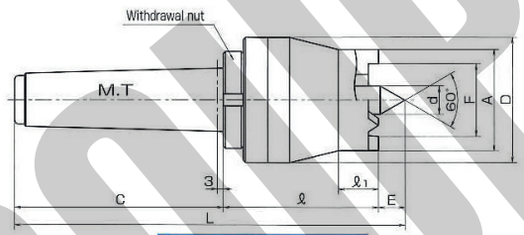




DK10 ~ DK20



DK25 · DK30



DK40 · DK50

Main Specifications of Fixed Jaw Model (DK)

Unit : mm

Code No.	Type No.	A	B	C	D	D_1	d	E	F	ℓ	$ℓ_1$	L
WDK3-100	M.T 3-DK10	10	28	84	49	28.5	6	7	—	36	8	155
WDK4-100	M.T 4-DK10			103								174
WDK3-120	M.T 3-DK12	12	28	84	49	28.5	6	7	—	36	10	155
WDK4-120	M.T 4-DK12			103								174
WDK3-150	M.T 3-DK15	15	28	84	49	28.5	8	9	—	36	10	157
WDK4-150	M.T 4-DK15			103								176
WDK3-180	M.T 3-DK18	18	28	84	49	28.5	10	10	—	36	10	158
WDK4-180	M.T 4-DK18			103								177
WDK3-200	M.T 3-DK20	20	28	84	49	28.5	10	10	—	36	10	158
WDK4-200	M.T 4-DK20			103								177
WDK4-250	M.T 4-DK25	25	28	103	49	28.5	10	10	16	36	10	177
WDK4-300	M.T 4-DK30	30	28	103	52	30	12	12	16	36	—	179
WDK4-400	M.T 4-DK40	40	—	103	62	—	14	13	26	77	25	193
WDK4-500	M.T 4-DK50	50	—	103	62	—	14	13	36	77	20	193

(Dimensions are subject to change due to design modifications.)

■ Runour of center to M.T (max.):TIR0.01

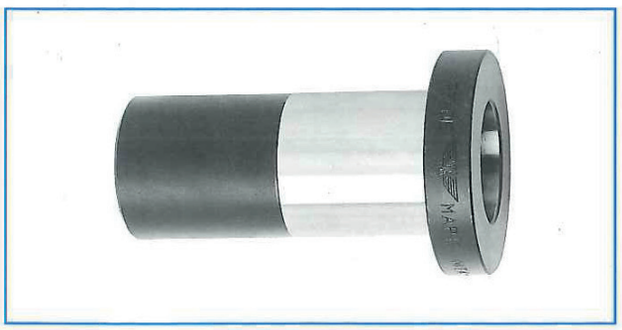
Features

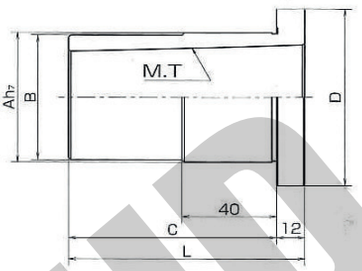
- Most suitable for gear cutting, splining, key seating and woodworking.
- Eliminates the need of chuck.
- Hold any workpiece at both centers to provide the best workpiece finish.
- Allows any workpiece to be quickly installed and removed.
- The withdrawal nut ensures ease of removal.

※ Note: • Each devices are appropriately designed for maximum diameter of the cutter criteria followings: from DK10 to DK30 = Φ75, DK40 = Φ100, DK50 = Φ120.
• In case of worn or torn of the jaws, we prepare the replacement modules.

EAGLE STARS

WORK-DRIVING CENTERS ADAPTER





Unit : mm

Code No.	M.T	Ah_7	B	C	D	L
ZZZ9-801	No.4	38	37.5	83	58	95
ZZZ9-802	No.5	55	53	88	75	100

Features

- It is not requited to take off the chuck at the occasion of using WORK-DRIVING CENTER since the adapter do not have taper on its external surface for easy-to-set on e.g. CNC machine tools. Grip the external surface of the adapter directly with the soft jaw of the chuck.

※ Note: • Set up WORK - DRIVING CENTER tightly into the adapter before gripping the adaptor's external surface with the soft jaw of the chuck.

• It is required to ascertain the accuracy of the WORK-DRIVING CENTER before using under gripped condition.