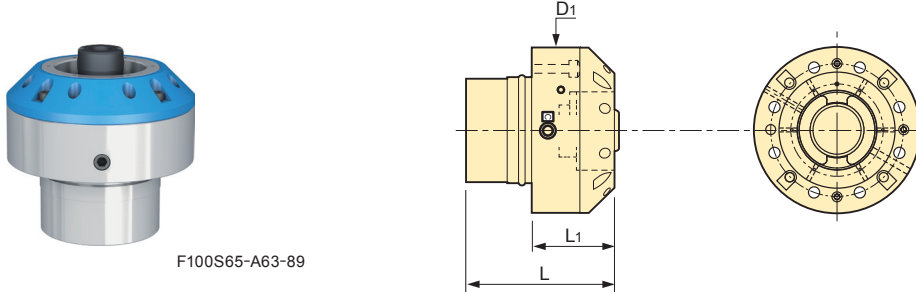


System Code table


HEAD

Automatic Clamping Head (Automatic exchange)

- The hydraulic clamping design allows you to interchange work-pieces automatically, and makes it possible for you to combine your machining centers with robots to create a fully-automated system.



F100S65-A63-89

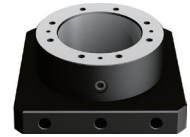
CODE	Interface	L	ϕD_1	L ₁	Clamping force	Max. loading weight	
F70S45 -A40 - 64	HSK-A40	64	70	35	6.6(kN)	40(kg)	1.1
F100S65 -A63 - 89	HSK-A63	89	100	50	24	160	2.9
F140S100-A100-139	HSK-A100	139	140	80	55	640	9.7

■Note

- Hydraulic pressure range : 2.7 ~ 4.3MPa
- Recommended pressure
Clamp / Unclamp : 3.5MPa (Hydraulic oil ISO-VG32)
Seating confirmation air : 0.1 ~ 0.2MPa (Pneumatic)
Air purge : 0.5MPa (Pneumatic)

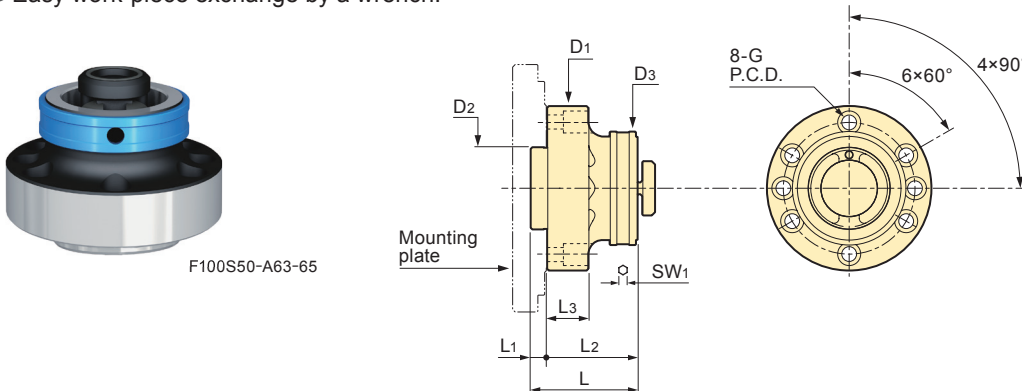
Mounting block

The mounting plate is an adapter for installation on the machine table and for connecting the hydraulic and pneumatic lines. Please provide us with a detailed drawing of your machine table and the plumbing drawing of your hydraulic and pneumatic lines. We can design and produce an exclusive mounting block, so please contact us for more information.




Manual Clamping Head (Manual exchange)

- Easy work-piece exchange by a wrench.



F100S50-A63-65

CODE	Interface	Screw hole	P.C.D.	ϕD_1	ϕD_2	ϕD_3	L	L ₁	L ₂	L ₃	Clamping force	
F 63S32-A40 - 42.5	HSK-A40	M 5	50	63	32	46	42.5	7.5	35	15	15(kN)	0.5
F100S50-A63 - 65	HSK-A63	M 8	80	100	50	69	65	10	55	25	30	1.9
F160S80-A100-106	HSK-A100	M12	125	160	80	106	106	21	85	35	45	7.4

■Std access.

- T-handle wrench
- Mounting bolt × 4pcs.

■Option

- Mounting plate

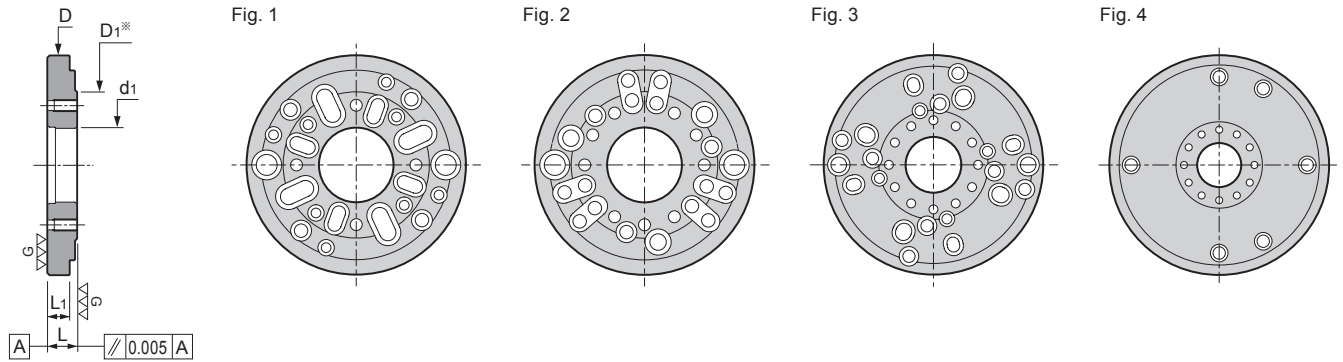
■Note

- A manual clamping hole on the work holder is required for mounting.

■Caution

- Requires mounting plate to attach on any table.

Mounting plate

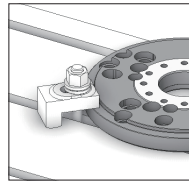


※D1 : Mounting surface for the Manual Clamping Head

CODE	HEAD	φD	L	φD1	φd1	L1	Weight Kg			
MP 40F150-1	A 40	147	20	62	32	15	1.8			
-2							1.9			
MP 63F150-1	A 63	147	20	98	50	15	1.6			
-2							1.7			
MP 63F200							197	22	17	3.8
MP 63F250							247	25	20	8.1
MP100F250	A100	247	25	157	80	20	7.5			

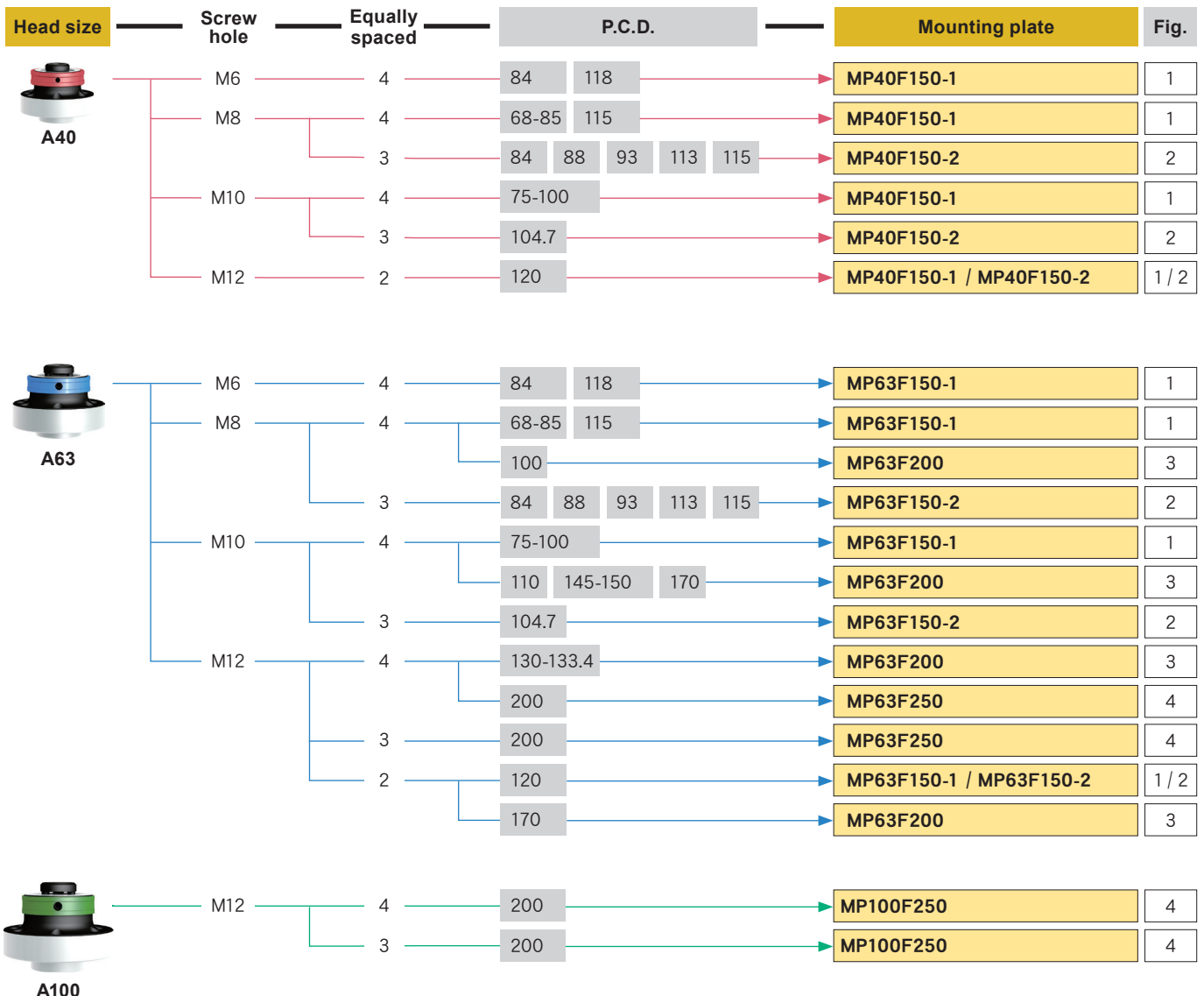
Caution

- MP63F250 / MP100F250 is a mounting plate for 5-axis machining center. Please modify the mounting plate if it doesn't fit the table. (Material : SCM415 / 55±2 HRC (1mm carburized case depth))
- Please fix with two M12 bolt for vertical machining center's table.
- Bolts, T-nuts and clampers are not included.



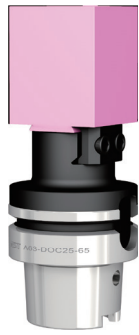
Please apply additional clampers if required.

Please refer to below flow chart to select the mounting plate.
Feel free to contact us for any queries.

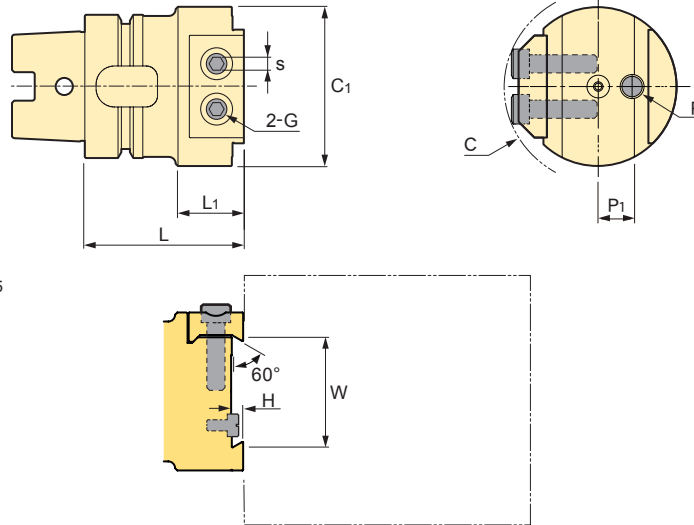



WORK HOLDER

Dovetail clamping work holder



A63-DOC25-65



CODE	L	L1	ϕC	$\phi C1$	W	H	ϕP	P1	G	s	
A40 -DOC 17.5-55	55	25	41	30	17.5	2	4	5	M 5	4	0.5
-DOC 25 -55		28	54	40	25	3	6	6	M 6	5	
-DOC 35 -55		25	63	50	35		8	10			0.6
-DOC 50 -60	60	30	84	70	50	5	10	15	M 8	6	1.1
A63 -DOC 25 -65	65	27	54	40	25	3	6	6	M 6	5	1.2
-DOC 35 -65			63	50	35		8	10			1.3
-DOC 50 -70	70	30	84	70	50	5	10	15	M 8	6	1.8
-DOC 70 -75	75	35	114	100	70		12	25	M10	8	2.7
A100 -DOC 35 -70	70	27	63	50	35	3	8	10	M 6	5	3.2
-DOC 50 -75	75	32	84	70	50	5	10	15	M 8	6	3.6
-DOC 70 -75		35	114	100	70		12	25			M10
-DOC100 -85	85	40	157	140	100	10	15	35	M12	10	6.5

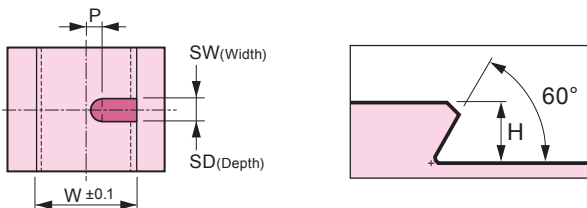
■ Std access.

- Fixing bolt(G) × 2pcs
- Marker pin(P) × 1pc

Dovetail grooving

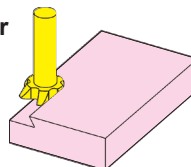
Dovetail grooving of the work-piece clamping area using an angular cutter is required prior to machining.


■ Details of dovetail dimensions



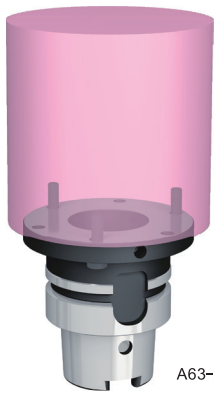
Holder type	W	H	P	SW	SD
DOC 17.5	17.5	2.5	2.5	4	2
DOC 25	25	3.5		6	
DOC 35	35	5.5	5.5	8	4
DOC 50	50		9	10	
DOC 70	70	10.5	18	12	
DOC100	100		26	15	

■ Angular cutter

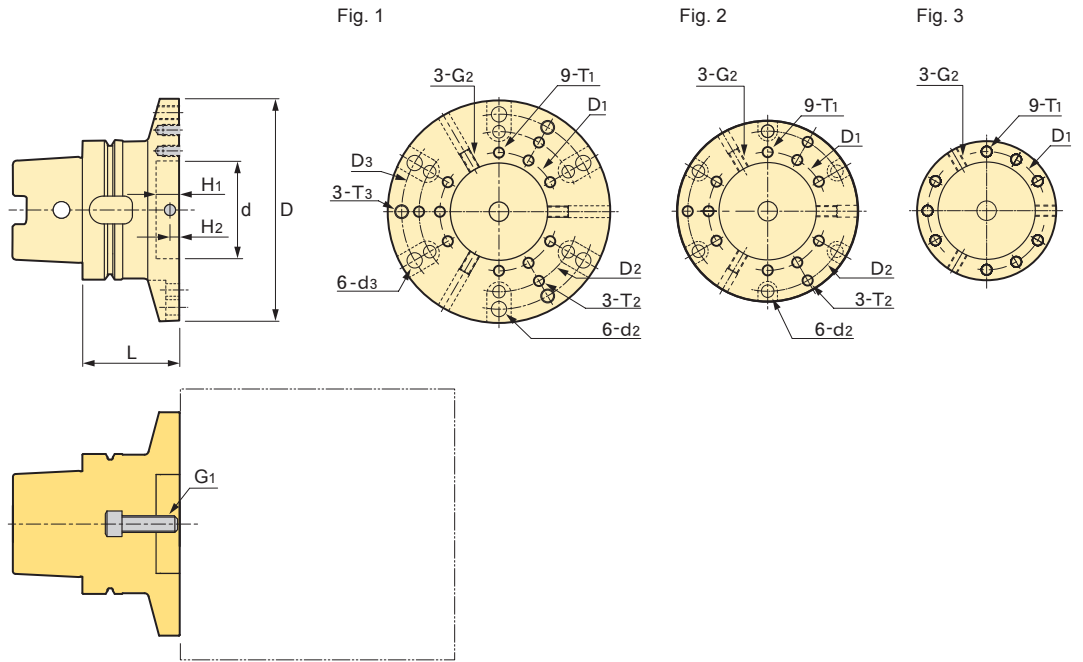


 Please purchase market standard dovetail cutters. For more information, please contact us.

Flange clamping work holder



A63-FP85-50



CODE	Fig.	L	φD	φD1	T1	φD2	T2	φd2	φD3	T3	φd3	φd	H1	H2	G1	G2	KG
A40 -FP40 -35	3	35	40	32	M4×6	—	—	—	—	—	—	25	12	4	M 6×15	M4×8	0.3
-FP63 -40	2	40	63			50	M5 thru	5.5				+0.053 +0.020			M 6×20		0.5
A63 -FP63 -45	3	45	63	50	M5×8	—	—	—	—	—	—	40	13	5	M10×20	M6×10	0.9
-FP85 -50	2	50	85			73	M6 thru	6.6				+0.064 +0.025			M10×25		1.2
-FP110-55	1	55	110				M6×9		95	M 8 thru	9				M10×30		1.7
A100-FP100-55	3	55	100	85	M8×12	—	—	—	—	—	—	70	17	7	M12×25	M8×16	3.0
-FP130-65	2	65	130			115	M8 thru	9				+0.076 +0.030			M12×35		4.2
-FP160-70	1	70	160				M8×12		140	M10 thru	11				M12×40		5.3

Std access.

- Center bolt (G1)×1pc.
- Set screw (G2)×3pcs.
- M6 special small-head bolt (the head diameter size is the same as the M5 bolt) ×6pcs. (A63FP-85-50 / A63-FP110-55)
- ※Regular M6 cap screw doesn't fit.

Option

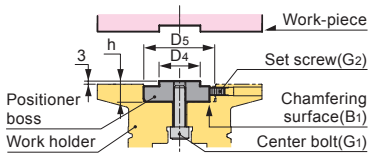
- Positioner boss
- Adapter

Note

- Use the center bolt (G1) when you use the center bolt to clamp the work-piece.
- When you need whirl-stop machining of a work-piece, make a flat surface on the work-piece and clamp it using a set screw (G2).

Positioner boss

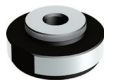
Please use when you need centering.



CODE	Work holder	φD4	φD5	h	KG
IR15-A40 FP	A40	15 ⁰ _{-0.027}	25	15	0.05
IR25-A63 FP	A63	25 ⁰ _{-0.033}	40	16	0.1
IR40-A100FP	A100	40 ⁰ _{-0.039}	70	20	0.5

Note

- When you do not want the work-piece to rotate, make a flat surface on the O.D. (B1) of the boss, and attach it using a set screw (G2).



IR25-A63FP

Adapter

Minimizing clamping area for a small-size work-pieces reduces the interference area.



RS-A63-A40

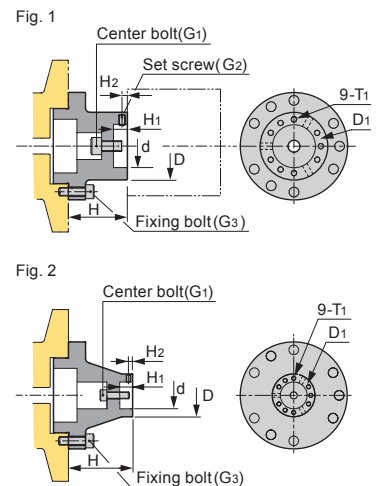
CODE	Work holder	Fig.	φD	φD1	φd	H1	H2	H	T1	G1	G2	G3	KG
RS-A63 -A40	A63	1	40 ^{+0.064} _{+0.025}	32	25	12	4	50	M4×6	M 6×20	M4×8	M5×16	0.5
RS-A100-A40	A100	2	40 ^{+0.053} _{+0.020}	32	25	12	4	60	M4×6	M 6×20	M4×8	M8×25	1.5
RS-A100-A63	A100	1	63 ^{+0.053} _{+0.020}	50	40	13	5	55	M5×8	M10×20	M6×10	M8×25	1.7

Std access.

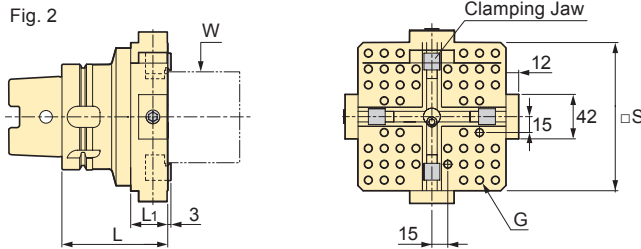
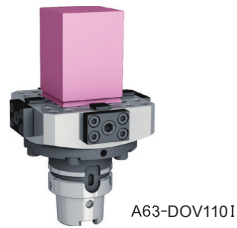
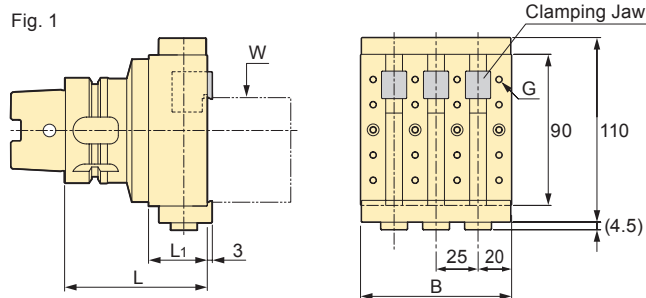
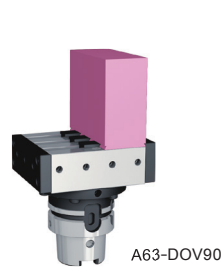
- Center bolt (G1)×1pc.
- Set screw (G2)×3pcs.
- Fixing bolt (G3)×3pcs.

Note

- Attach the work-piece with the center bolt (G1).
- When you do not want the work-piece to rotate, secure the chamfering surface using a set screw(G2).



Dovetail Vise clamping work holder

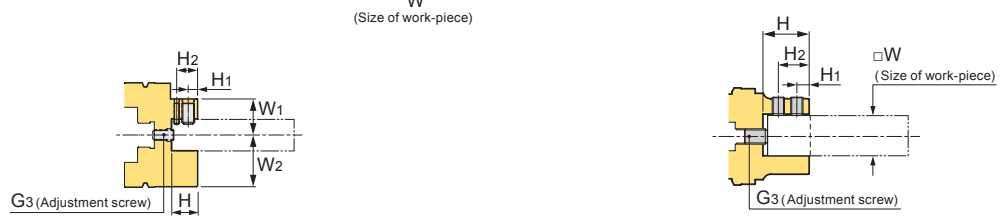
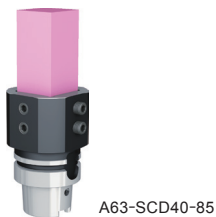
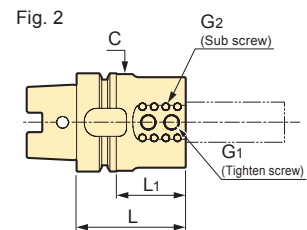
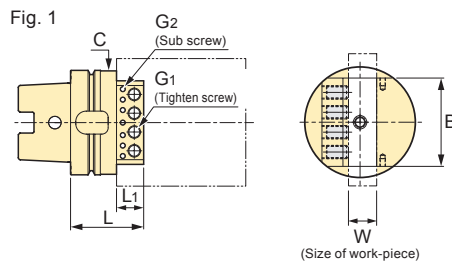
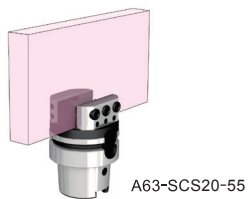


CODE	Fig.	□S	Number of grooves	B	W	G	L	L1	KG
A63 -DOV 90	1	—	3	90	12~ 73	20-M4× 6	85	35	3.8
-DOV110I	2	110	—	—	36~ 80	24-M8× 10	90	35	5.7
A100-DOV140	1	—	5	140	12~ 73	30-M4× 6	100	35	7.7
-DOV140I	2	140	—	—	36~110	52-M8× 10	100	35	9.9

■Std access.
● 8mm hexagonal wrench

■Note
● Please refer to P.7 for dovetail details.
● Work-piece clamping jaws move individually.
● Please use the screw hole on the top face as necessary.

Side screw clamping work holder

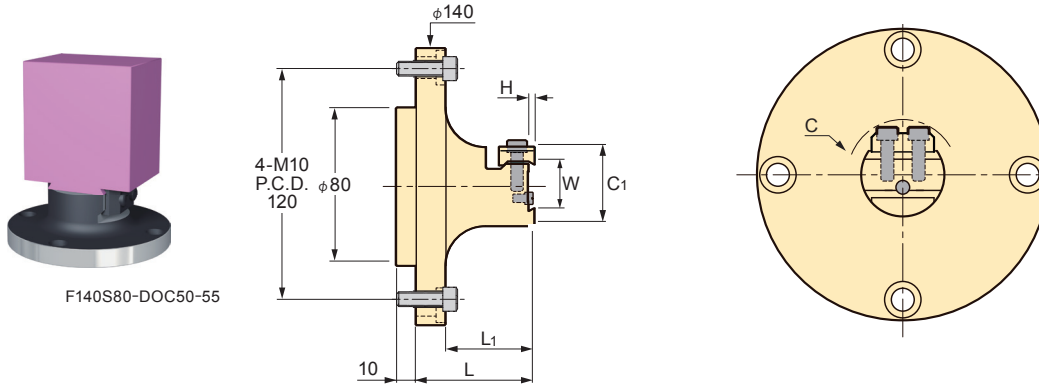


CODE	Fig.	W	W1	W2	B	L	L1	φC	H	H1	H2	G1	G2	G3	KG		
A40 -SCS10-40	1	5 ~ 10	13	18.6	30	40	11	39	10	4.5	—	M 6×10	—	M 6	0.5		
-SCD20-55	2	15 ~ 20	—	—	—	55	30	49	25	11	—	M 8×16	M4	M10	0.5		
A63 -SCS10-55	1	5 ~ 10	20	23.5	50	55	21	62	20	7.5	17	M10×15	M5	M10	1.1		
-SCS20-55		15 ~ 20	25	28.5													
-SCD20-65	2	15 ~ 20	—	—	—	65	30	49	25	11	—	M 8×16	M4	M10	1.2		
-SCD25-70		20 ~ 25	—	—		70	35	56	30	8	20				—	1.3	
-SCD30-70		25 ~ 30	—	—		—	—	44	62	35	9	24	M10×20	M5	—	1.4	
-SCD40-85		35 ~ 40	—	—		—	—	85	52	76	45	12	30	M12×20	M6	—	1.9
A100-SCS20-70	1	12 ~ 20	29.5	34	80	70	26	99	25	9	20	M12×20	M5	M12	3.6		
-SCS30-70		22 ~ 30	34.5	39													
-SCD20-70	2	15 ~ 20	—	—	—	70	30	49	25	11	—	M 8×16	M4	M10	3		
-SCD25-75		20 ~ 25	—	—		75	35	56	30	8	20				—	3.4	
-SCD30-80		25 ~ 30	—	—		—	—	80	—	62	35	9	24	M10×20	M5	—	3.5
-SCD40-90		35 ~ 40	—	—		—	—	90	45	76	45	12	30	M12×20	M6	—	3.9

■Std access.
● Tighten screw (G1) SCS× 2pcs. SCD× 4pcs.

Direct-mounting (Direct-mounting type on the machine table)

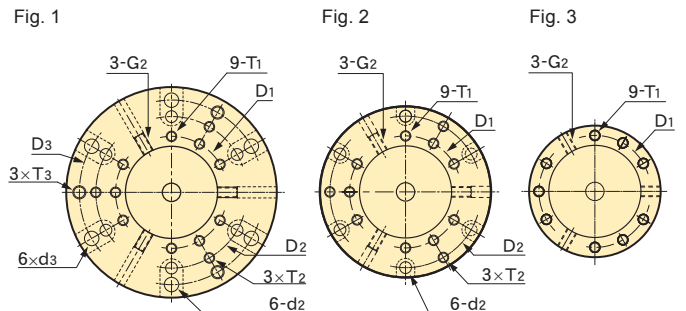
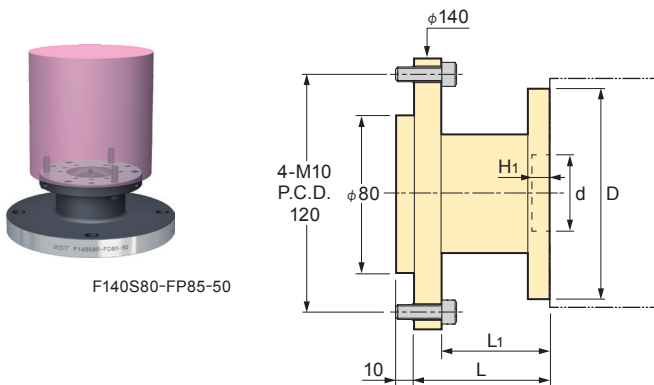
Dovetail clamping type



CODE	L	L ₁	H	φC	φC ₁	W	Kg
F140S80-DOC 17.5-60	60	45	2	41	30	17.5	2.5
-DOC 25 -60			3	54	40	25	2.6
-DOC 35 -55	55	40		63	50	35	2.8
-DOC 50 -55			5	84	70	50	3.4
-DOC 70 -55				114	100	70	4.7
-DOC100 -55			10	157	140	100	5.5

- **Std access.**
 - Mounting bolt × 4 pcs.
- **Option**
 - Mounting plate
- **Note**
 - Please refer to P.7 for dovetail details.
- **Caution**
 - Requires mounting plate to attach on any table.

Flange clamping type

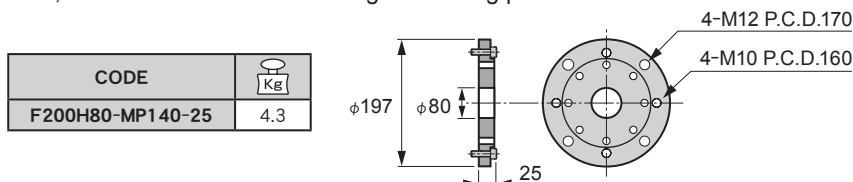


CODE	Fig.	L	L ₁	H ₁	φD	φD ₁	T ₁	φD ₂	T ₂	d ₂	φD ₃	T ₃	d ₃	φd	G ₂	Kg
F140S80-FP 63-50	3	50	25	13	63	50	M5×8	—	—	—	—	—	—	40	M6×10	2.6
-FP 85-50	2				85			73	M6 thru	6.6				+0.064 +0.025		3.1
-FP110-70	1	70	45		110				M6×9		95	M8 thru	9			3.7
-FP130-75	2	75		17	130	85	M8×12	115	M8 thru	9	—	—	—	70 +0.076 +0.030	M8×16	5.5

- **Std access.**
 - Mounting bolt × 4 pcs.
- **Option**
 - Mounting plate
 - Positioner boss → P.8
 - Adapter → P.8
- **Caution**
 - Requires mounting plate to attach on any table.

Mounting plate

Also, we can make a custom design mounting plate.



CODE	Kg
F200H80-MP140-25	4.3