



CHUCK

Dual Lock Chuck DL200 series

2-Way gripping

Unbelievable versatility with the ability to grip anything you want



● Increased gripping options

KITAGAWA introduce the worlds 1st chuck with two stage gripping action.

Parallel jaw clamping with secondary pull back action for work seating.

Jaws do not protrude in the Z Axis unlike conventional pull back chucks. This allows for improved gripping on difficult areas.

The gripping range is extended up the chuck OD allowing a wider range of workpieces to be machined.

DL series contributes to improve the productivity by applying flexible chucking for various operations.

● Ideal for volume production machining

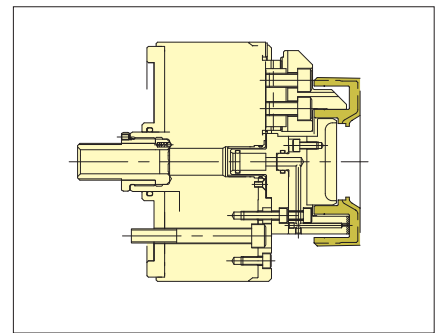
Dust proof sealed body design for long life. Suitable for automation and volume production.

● Easy jaw forming

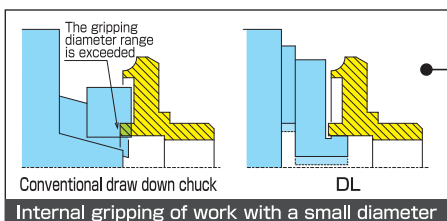
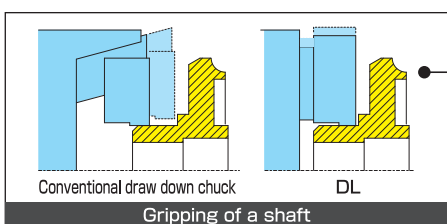
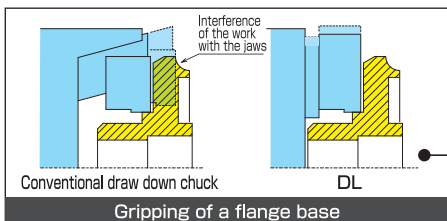
Serrated Jaws are used allowing for easy jaw forming by customer.

*CE correspondence

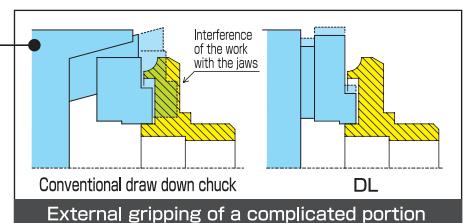
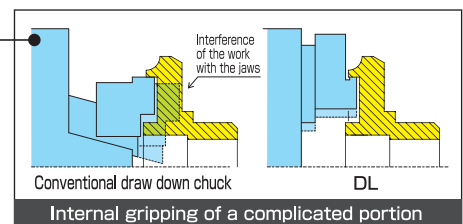
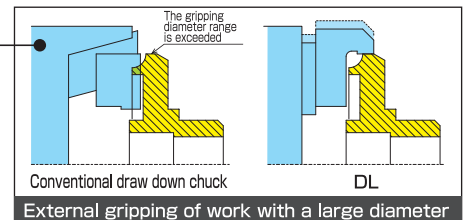
Gripping Example



Example



Possible gripping position
■ DL chuck
■ Conventional draw down chuck

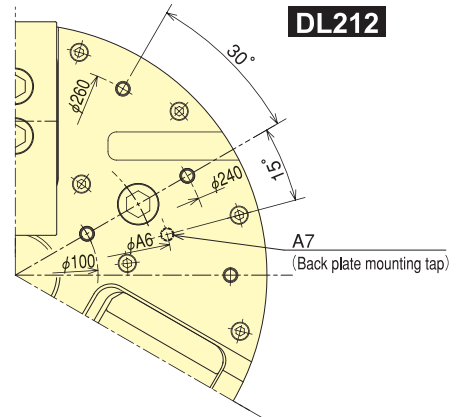
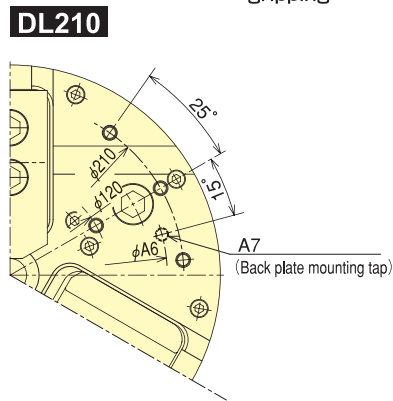
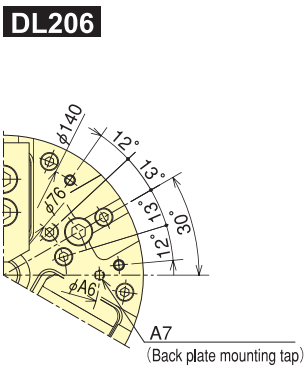
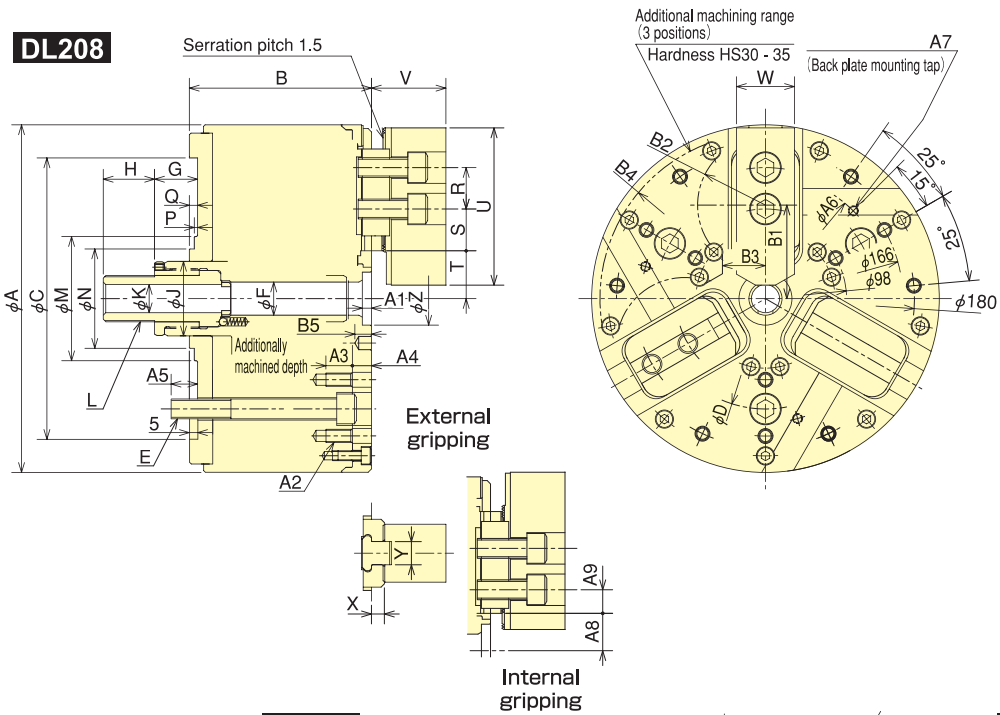


Precautions for operation

1. Attach a work to a locator before gripping.
2. Do not use the chuck with a T-nut protruded from a master jaw end face.
3. When changing the method for gripping an inner diameter of the work from an outer diameter of the work, remove a cover in order to rotate the master jaw 180-degree.
4. A work pulling quantity varies by gripping conditions such as the gripping diameter of the work, stiffness of each jaw, jaw gripping height, etc. If the work will be deformed due to over-pulling of the work or vice versa, it is necessary to adjust parts or replace them. In this case, confer with our company.

5. To obtain a stable gripping and adequate pulling of the work, set jaws low.
6. For additional machining to the chuck end face, a pin hole level is acceptable. Take care so as not to pass through the cover.
7. For locator mounting tap of DL206, use a cover mounting tap.
8. When using optional jaws for DL206 and DL210, the additional machining of jaws may be required.
9. Optional jaw of DL210 is SB12A1 of 12-inch. Take care so as not to use a wrong type of the jaw.
10. Refer to the amounts below for Jaw Stroke (one side) from the gripping position to the unclamping position.
DL206 : 0.7mm, DL208 : 0.8mm, DL210 : 1mm, DL212 : 1mm
11. Confer with our company about other unclear points.

Dimensional Drawings



Dimensions

Model	A	B	C	D	E	F	G max.	G min.	H	J	K	L	M	N	P	Q	R	S max.	S min.	T max.	T min.
DL206	169	105	140	104.8	3-M10	20	34	22.5	30	42	17	M26×1.5	-	55	-	7	20	14.25	8.25	23.7	20.8
DL208	210	110	170	133.4	3-M12	20	37.5	26	31	45	17	M28×1.5	75	60	2	5	25	25.25	16.25	28.9	25.3
DL210	254	132	220	171.4	3-M16	20	38.5	24.5	39.5	50	17	M30×1.5	-	65	-	5	30	26.25	12.75	32.8	28.3
DL212	304	132	220	171.4	3-M16	50	33.5	19.5	44.5	75	17	M30×1.5	-	-	-	-	30	26.25	12.75	57.8	53.3

Model	U	V	W	X	Y	Z	A1	A2	A3	A4	A5	A6	A7	A8max.	A8min.	A9max.	A9min.	B1	B2	B3	B4	B5
DL206	72	41.5	31	10.3	12	32	4	3×7-M6	12	10.5	15	116	3-M6	23.7	20.8	21.25	15.25	47	R32	24	R79	MAX 9
DL208	95	45	35	7.8	14	32	5.5	3×4-M8	16	11.5	16	150	3-M6	26.2	22.6	20.25	11.25	56.5	R42	27	R100	MAX 10
DL210	101.5	59	45	14.7	18	35	5.5	3×4-M8	16	14	24	190	3-M8	29.7	25.2	35.25	21.75	68	R49	33	R120	MAX 12
DL212	129	64	50	14.7	18	50	14	3×4-M8	16	14	24	190	3-M8	54.7	50.2	35.25	21.75	93	R49	33	R145	MAX 12

Specifications

Model	Jaw stroke (diameter) mm	Plunger Stroke mm	Max. Draw Bar Pull Force kN (kgf)		Max. Gripping Force kN (kgf)		Max. Speed min ⁻¹	Net Weight with Soft top jaws kg	Moment of inertia kg·m ²
			External gripping	Internal gripping	External gripping	Internal gripping			
DL206	5.8	11.5	19.0(1937)	12.6(1285)	54.0 (5506)	36.0(3671)	6000	18.0	0.080
DL208	7.2	11.5	35.0(3569)	23.0(2345)	84.0 (8566)	56.0(5710)	5000	30.0	0.135
DL210	9.0	14	50.0(5099)	33.0(3365)	110.0(11217)	73.3(7478)	4000	52.0	0.410
DL212	9.0	14	50.0(5099)	33.0(3365)	110.0(11217)	73.3(7478)	3000	74.0	0.880

Model	Matching Cylinder	Max. pressure MPa (kgf/cm ²)		Gripping range in standard jaw of use mm	Standard jaw type	Gripping range in optional jaw of use mm	Optional jaw type	Min. input kN (kgf)	Min. pressure MPa (kgf/cm ²)
		External gripping	Internal gripping						
DL206	Y1020R	2.70 (27.5)	1.70 (17.3)	φ25~φ140	SB06D1	φ25~φ158	SB06B1	5.0 (510)	0.9 (9.2)
DL208	Y1225R	3.40 (34.7)	2.10 (21.4)	φ30~φ210	SB08B1	-	-	6.2 (632)	0.8 (8.2)
DL210	Y1530R	3.40 (34.7)	2.30 (23.5)	φ40~φ234	SB10D1	φ40~φ254	SB12A1 (Note 9)	10.0(1020)	0.9 (9.2)
DL212	Y1530R	3.40 (34.7)	2.30 (23.5)	φ90~φ304	SB12A1	-	-	10.0(1020)	0.9 (9.2)