



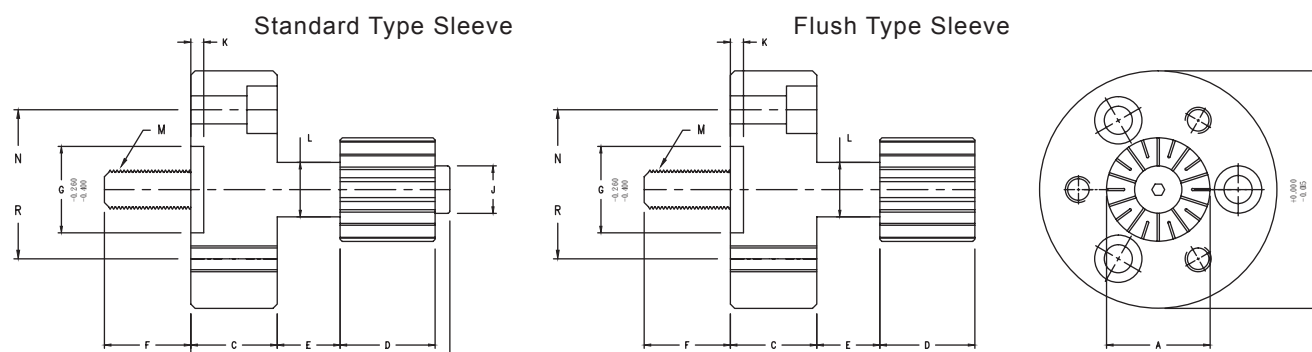
PTG Expanding Mandrel

0.015mm T.I.R. Accuracy



- Large expansion range up to 0.6mm
- Double-angle principle allows for fast loading/ unloading of components.
- Greater holding power by applying pressure evenly along the length of the sleeve
- Guaranteed accuracy of 0.015mm.

Dimension and Specification



Standard Type	3A1	2C1	1C1	18C1	4C1	5C1	6C1	7C1	8C1
A (Dia.)	Min:12.5 Max:16.0	Min:16.0 Max:22.0	Min:22.0 Max:28.5	Min:28.5 Max:41.0	Min:41.0 Max:63.5	Min:63.5 Max:76.2	Min:76.2 Max:89.0	Min:89.0 Max:130.0	Min:130.0 Max:178.0
B	60	66	72	79	84	109	118	133	153
C	20	20	20	20	20	25	25	30	30
D	22.0	27.0	32.0	38.0	43.0	51.0	57.0	63.5	79.5
E	14.6	15.0	15.5	15.3	14.8	25.3	24.7	25.2	24.6
F	20	22	30	31	36	36	37	47	22
G	40	40	40	40	40	60	60	100	100
H	75	75	75	75	75	120	120	180	180
J	11.0	15.0	20.0	26.5	37.5	55.0	74.5	86.5	124.0
K	6	6	6	6	6	6	6	6	6
L	12.6	14.1	20.7	26.3	37.0	57.3	71.1	84.1	123.0
M (Pull Thread)	M4	M8	M8	M10	M12	M20	M20	M24	M36
N(Bolts)	Ø58-M8	Ø58-M8	Ø58-M8	Ø58-M8	Ø58-M8	Ø94-M10	Ø94-M10	Ø150-M12	Ø150-M12
R	Ø28-M4	Ø28-M4	Ø58-M6	Ø58-M6	Ø58-M6	Ø94-M8	Ø94-M8	Ø150-M10	Ø150-M10
Max. Pull Force(kgf)	700	1000	1200	1800	2300	2800	3200	3700	5500

Standard Type	3A2	2C2	1C2	18C2	4C2	5C2	6C2	7C2	8C2
A(Dia.)	Min:16.5 Max:22.0	Min:22.0 Max:28.5	Min:28.5 Max:40.0	Min:40.0 Max:51.0	Min:51.0 Max:73.0	Min:73.0 Max:89.0	Min:89.0 Max:102.0	Min:101.0 Max:143.0	Min:143.0 Max:178.0
C	20	20	20	20	20	25	25	30	30
D	26.0	32.0	38.0	45.0	50.0	60.0	69.0	78.5	99.5
E	14.6	15.0	15.5	15.3	14.8	25.3	24.7	25.2	24.6
F	20	22	30	31	36	36	37	47	22
G	40	40	40	40	40	60	60	100	100
H	75	75	75	75	75	120	120	180	180
J	11.0	15.0	20.0	26.5	37.5	55.0	74.5	86.5	124.0
K	6	6	6	6	6	6	6	6	6
L	12.6	14.1	20.7	26.3	37.0	57.3	71.1	84.1	123.0
M (Pull Thread)	M4	M8	M8	M10	M12	M20	M20	M24	M36
N(Bolts)	Ø58-M8	Ø58-M8	Ø58-M8	Ø58-M8	Ø58-M8	Ø94-M10	Ø94-M10	Ø150-M12	Ø150-M12
R	Ø28-M4	Ø28-M4	Ø58-M6	Ø58-M6	Ø58-M6	Ø94-M8	Ø94-M8	Ø150-M10	Ø150-M10
Max. Pull Force(kgf)	700	1000	1200	1800	2300	2800	3200	3700	5500