Series 6300

Pneumatic grippers from the 6300 series are typically used in complex systems such as assembly machines, robots, manipulators etc. This series covers the wide range requirements of this sector, allowing a variety of applications.
The range includes grippers equipped with holding fingers operating from -10° to +30° degrees, with 180° degree opening, or a parallel guided gripper with great rigidity throughout the stroke.
The parallel grippers cater for larger openings (three different strokes for each diameter) with synchronised operation via a pinion-rack system with high strength thanks to a double piston mechanism.
For the typical application of supplying a piece upon to a machine tool, make provision for an automatic three-pronged movement carried along by a wedge mechanism, containing the elevated force dimensions.
The holding fingers can have a tolerance reference as a precise fixing device for the catching mechanism.
Every type of "hand" offers different functional levels of performance at varying diameters and lengths, secondary to the application by the "fingers".

Construction characteristics

	Materials	Series					
Body	Anodized aluminium	6301	6302	6303	6310	6311	6312
Piston	AISI 303 stainless steel	6301	/	/	/	/	/
	Aluminium	/	6302	6303	/	6311	6312
	Aluminium or stainless steel (based on bore)	/	/	/	6310	/	/
Fingers	Steel	6301	6302	6303	6310	/	6312
	Anodized aluminium	/	/	/	/	6311	/
Rear end cap	Anodized aluminium	6301	6302	6303	6310	/	/
Seals	oil resistant NBR rubber	6301	/	/	6310	/	/
Piston rod	Steel	/	/	/	/	6311	/
Rack	Steel	/	/	/	/	6311	/
Pinion	Steel	/	/	/	/	6311	/
Wedge	Steel	/	/	/	/	/	6312

Operational characteristics

	All series
Fluid	filtered and preferably lubricated air or not (if lubricated the lubrication must be continuous)
Working pressure	1 ... 6 bar (double acting) - 2.5 ... 6 bar (single acting)
Working temperature	-5 °C ... +70 °C

	6301	6302	6303	6310	6311	6312
Opening total stroke	-10° ... 30°	-3° ... 180°	-5° ... 180°	/	/	/
Maximum operating frequency	from Ø10 to Ø25, 190 cycles/minute	from Ø10 to Ø25, 60 cycles/minute	from Ø20 to Ø25, 60 cycles/minute from Ø32 to Ø50, 30 cycles/minute	from Ø10 to Ø25, 180 cycles/minute	/	from Ø16 to Ø25, 120 cycles/minute from Ø32 to Ø63, 60 cycles/minute from Ø80 to Ø125, 30 cycles/minute
Working pressure	/	/	/	/	Ø10: 1.5 ... 6 bar Ø16 ... Ø40: 1 ... 6 bar	2 ... 6 bar (Ø16-Ø20-Ø25) 1 ... 6 bar (Ø32 ... Ø125)
Function	/	/	/	/	Double acting	Double acting

	6301		
	Bore	Double acting	Single acting
Holding force (Nm) at 5 bar	Ø10	0,1	0,07
	Ø16	0,4	0,30
	Ø20	0,7	0,55
	Ø25	1,35	1,08

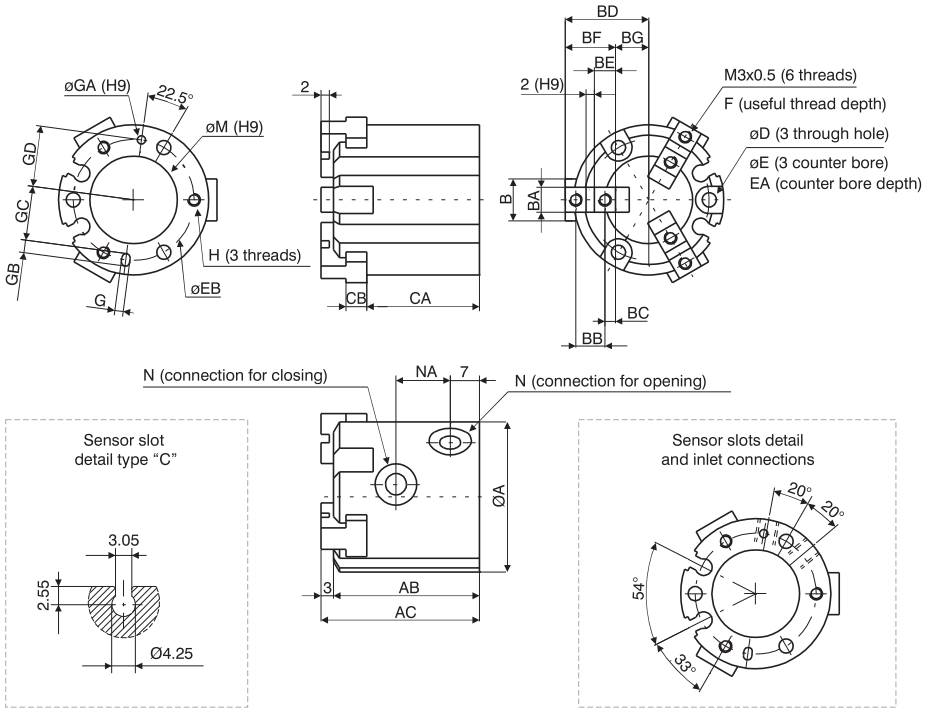
3 Finger parallel style pneumatic grippers

Coding: 6312.Ø.D

	BORE
Ø	**16** = Ø16
	20 = Ø20
	25 = Ø25
	32 = Ø32
	40 = Ø40
	50 = Ø50
	63 = Ø63
	80 = Ø80
	100 = Ø100
	125 = Ø125

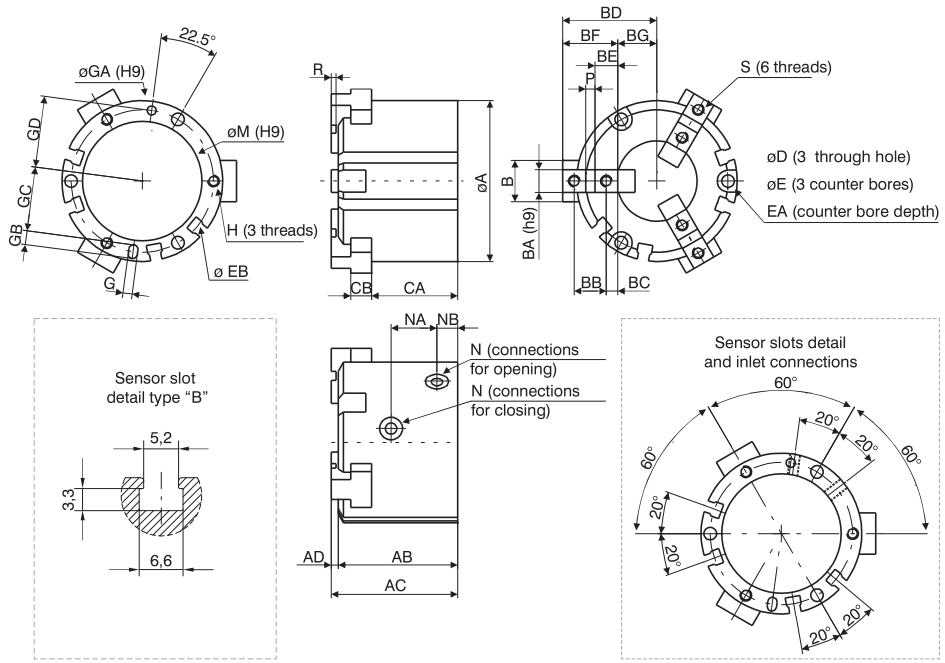
Bore		Ø16	Ø20	Ø25
ØA		30	36	42
AB		32	35	37
AC		35	38	40
B		8	10	12
BA H9		5	6	6
BB		6	7	8
BC		2	2,5	3
BD	open	17	20	24
	closed	15	18	21
BE		4	5	6
BF		10	12	14
BG	open	7	8	10
	closed	5	6	7
CA		25	27	28
CB		4	5	5
D		3,4	3,4	4,5
E		6,5	6,5	8
EA		8	9,5	10
EB		25	29	34
F		5	6	6
G H9		2	2	3
	Useful depth	2	2	3
ØGA H9		2	2	3
	Useful depth	2	2	3
GB		3	3	5
GC		11	13	14,5
GD		12,5	14,5	17
H		M3x0,5	M3x0,5	M4x0,7
	Useful depth	4,5	6	6
ØM H9		17	21	26
	Useful depth	1,5	1,5	1,5
N		M3x0,5	M5x0,8	M5x0,8
NO		11	13	15
Weight (g)		62	98	139

Overall dimensions Ø16 ... Ø25



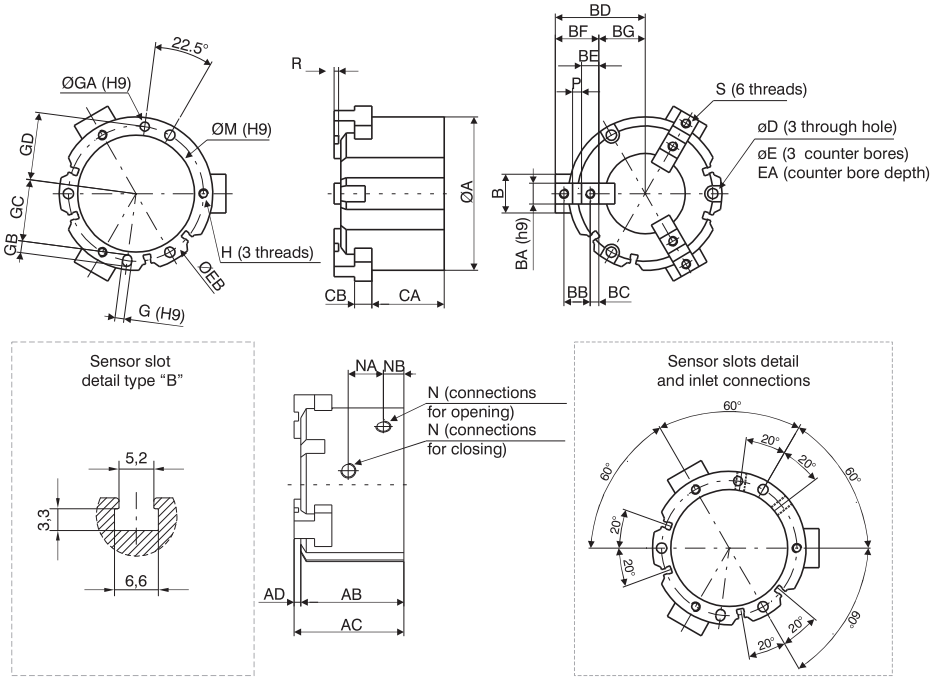
Overall dimensions and technical information are provided solely for informative purposes and may be modified without notice

Overall dimensions Ø32 ... Ø80



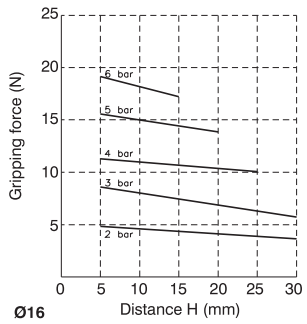
Bore		Ø32	Ø40	Ø50	Ø63	Ø80
ØA		52	62	70	86	106
AB		41	44	52	62	77
AC		44	47	55	66	82
AD		3	3	3	4	5
B		14	16	18	24	28
BA H9		8	8	10	12	14
BB		11	12	14	17	20
BC		4,5	4,5	5	5,5	6
BD	open	32	35	41	51	63,5
	closed	28	31	35	43	53,5
BE		9	9	10	11	12
BF		20	21	24	28	32
BG	open	12	14	17	23	31,5
	closed	8	10	11	15	21,5
CA		30,5	32	37,5	44	56
CB		6	7	9	11	12
D		4,5	5,5	5,5	6,6	6,6
E		8	9,5	9,5	11	11
EA		9	9	12	14	19
EB		44	53	62	76	95
H		M4x0,7	M5x0,8	M5x0,8	M6x1	M6x1
	Useful depth	6	7,5	10	9	12
G H9		3	4	4	5	6
	Useful depth	3	4	4	5	6
ØGA H9		3	4	4	5	6
	Useful depth	3	4	4	5	6
GB		5	6	6	7	8
GC		19,5	23,5	28	34,5	43,5
GD		22	26,5	31	38	47,5
N		M5x0,8	M5x0,8	M5x0,8	M5x0,8	G1/8
ØM H9		34	42	52	65	82
	Useful depth	2	2	2	2,5	3
NO		16	17	20	22	27
NB		8	9	9	12	13,5
P H9		2	3	4	6	8
R		2	2	2	3	4
S		M4x0,7	M4x0,7	M5x0,8	M5x0,8	M6x1
	Useful depth	8	8	10	10	12
Weight (g)		240	354	542	1000	1850

Overall dimensions Ø100 and Ø125

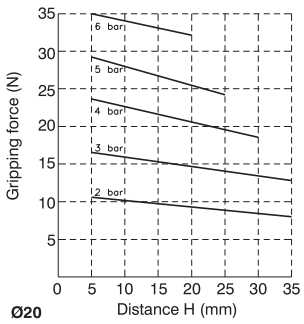


Bore		Ø100	Ø125
ØA		134	166
AB		90	114
AC		96	122
AD		6	8
B		34	40
BA H9		18	22
BB		23	31
BC		7,5	10,5
BD	open	78	98
	closed	66	82
BE		15	21
BF		38	52
BG	open	40	46
	closed	28	30
CA		63	84
CB		15	18
ØD		9	11
ØE		14	17,5
EA		21	34
EB		118	148
G H9		8	10
	Useful depth	6	8
ØGA H9		8	10
	Useful depth	6	8
GB		10	12
GC		54	68
GD		59	74
H		M8x1,25	M10x1,5
	Useful depth	16	20
ØM H9		102	130
	Useful depth	4	6
N		G1/4	G3/8
NO		30,6	38
NB		18	23,5
P H9		8	10
R		4	6
S		M8x1,25	M10x1,5
	Useful depth	16	20
Weight (g)		3360	6430

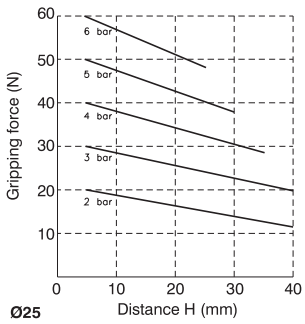
Operating criteria
Gripping force



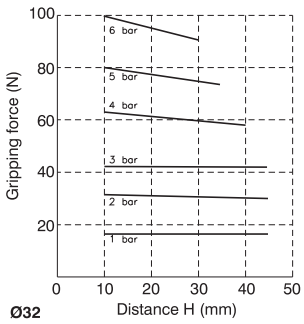
Ø16



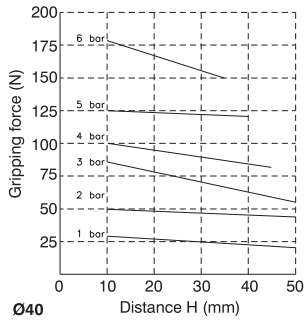
Ø20



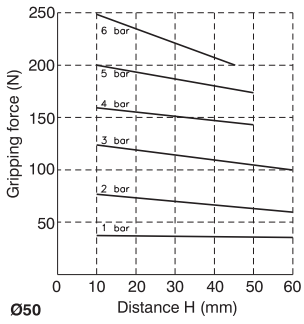
Ø25



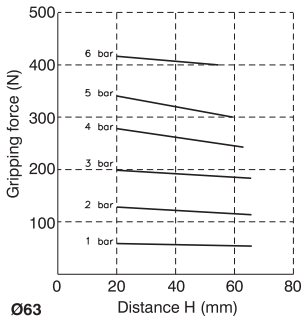
Ø32



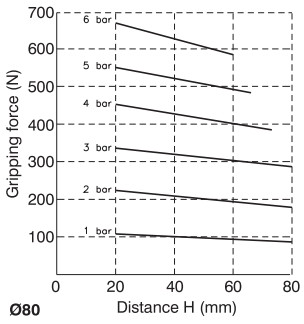
Ø40



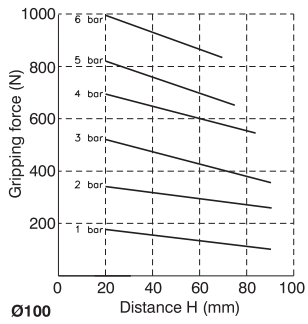
Ø50



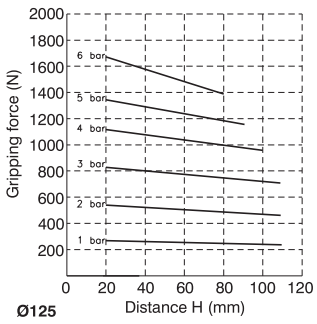
Ø63



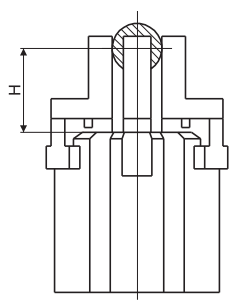
Ø80

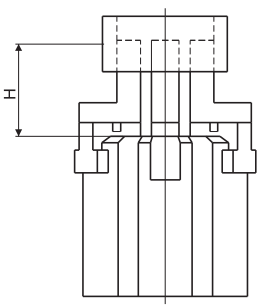


Ø100



Ø125





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