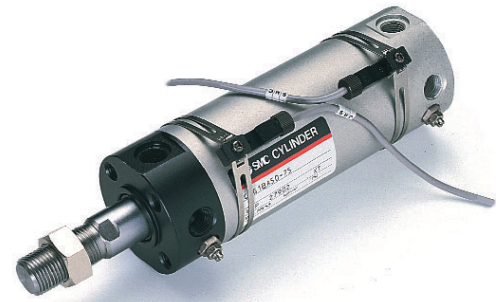




AIR CYLINDER SERIES NCG BORE SIZES 3/4"~2 1/2"

- ✓ Double acting
- ✓ Clean line
- ✓ A substantial reduction in overall length compared to tie-rod designed cylinders
- ✓ High velocity
- ✓ Magnetic piston for auto switch sensing as an option
- ✓ Non-rotate option available



HOW TO ORDER

AIR CYLINDER SERIES NCG



NC G — B73 S

AUTO-SWITCH
 - Without Auto Switch
 D - With Auto Switch
 Capability /Built-in Magnet

STYLE
 -Standard Cylinder
 KNon Rotating Rod
 W Double Rod

MOUNTING
 BBasic
 CSingle Clevis
 LFoot
 FFront Flange
 GRear Flange
 UFront Trunnion
 TRear Trunnion
 DDouble Clevis
 NFront Nose Mount

CUSHION
 N ... Urethane Bumper (Std)
 A ... Adjustable Air Cushion

BORE SIZE
 20 ...3/4"
 25 ...1"
 32 ...1 1/4"
 40 ...1 1/2"
 50 ...2"
 63 ...2 1/2"

STROKE
 Stroke/inch

STROKE
 Stroke/Hundredths of an inch

AUTO SWITCH CAPABLE
 - ... W/O Auto Switch
 * For **Reed and Solid State Switch** details, refer to **Accessories ~ Auto Switches** on the following page.

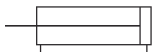
NO OF SWITCHES
 -2 Pieces
 S1 Piece
 nn number of switches

OPTIONS
 XC6 ...Stainless Steel Rod
 XB6 ...High Temperature
 XB7 ...Low Temperature
 XB9 ...Low Speed
 XC8 ...Stroke Adjustment/Extend
 XC9 ...Stroke Adjustment/Retract
 XC10 Dual Stroke
 XC11 3 Position Tandem
 XC37 Enlarged Orifice

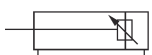
CONSTRUCTION SPECIFICATIONS

Rod cover	Aluminum alloy (Black Anodizing)
Body	Aluminum alloy (Hard Alumite)
Piston rod	Carbon steel (Hard Chrome Plated)

SYMBOLS RUBBER CUSHIONED



AIR CUSHIONED



STOCK STROKE LIST FOR ALL STYLES SERIES NCG

BORE SIZE	STANDARD STOCKED STROKE	MAXIMUM STANDARD STROKE
20	1, 2, 3, 4, 5, 6, 8	20
25	1, 2, 3, 4, 5, 6, 8, 10, 12	25
32	1, 2, 3, 4, 5, 6, 8, 10, 12	40
40	1, 2, 3, 4, 5, 6, 8, 10, 12	45
50	1, 2, 3, 4, 5, 6, 8, 10, 12	55
63	1, 2, 3, 4, 5, 6, 8, 10, 12	55



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 DETAILS ON THIS
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ACCESSORIES MOUNTING BRACKET SERIES NCG

Bore Size Inches Mounting Accessory	3/4	1	1 1/4	1 1/2	2	2 1/2
Foot (2 pcs)	NCG-L020	NCG-L025	NCG-L032	NCG-L040	NCG-L050	NCG-L063
Flange	NCG-F020	NCG-F025	NCG-F032	NCG-F040	NCG-F050	NCG-F063
Trunnion	NCG-T020	NCG-T025	NCG-T032	NCG-T040	NCG-T050	NCG-T063
Double Clevis	NCG-D020	NCG-D025	NCG-D032	NCG-D040	NCG-D050	NCG-D063
Trunnion Bracket	NCG-P020	NCG-P025	NCG-P032	NCG-P040	NCG-P050	NCG-P063
Single Clevis	NCG-C020	NCG-C025	NCG-C032	NCG-C040	NCG-C050	NCG-C063

FOR MORE TECHNICAL INFORMATION ON THIS SERIES, PLEASE REFER TO CAT:N303

ACCESSORIES AUTO SWITCHES

Note: Pre-wired Switches with 3/4 Pin Connectors available, please consult SMC Customer Service

MODEL NUMBER	OPERATING VOLTAGE	MAXIMUM CURRENT OR OPERATING CURRENT RANGE (mA)	INDICATOR LIGHT/WIRE
D-B54	24VDC 110VAC 220VAC	5~50mA 5~25mA 5~12.5mA	Yes/2 Wire
D-B53	24VDC	5~50mA	Yes/2 Wire
D-B64	24VDC 110VAC 220VAC	50mA 25mA 12.5mA	No/2 Wire
D-B73	24VDC	5~40mA	
D-C73	110VAC	5~20mA	Yes/2 Wire
D-C73C			
D-B76	4~8VDC	20mA	Yes/2 Wire
D-C76			
D-B80	24V	50mA	
D-C80	48V	40mA	No/2 Wire
D-C80C	110V	20mA	

SOLID STATE SWITCHES MODEL NUMBER	OPERATING VOLTAGE	MAXIMUM CURRENT OR OPERATING CURRENT RANGE (mA)	INDICATOR LIGHT/WIRE
D-G59	24VDC (10~28VDC)	40mA	Yes/3 Wire (NPN)
D-G5P	-	80mA or less	Yes/3 Wire (PNP)
D-K59	24VDC (10~28VDC)	5~40mA	Yes/2 Wire
D-5NTL	24VDC (10~28VDC)	80mA or less	Yes/3 Wire (NPN)
D-H7A1	24VDC (10~28VDC)	40mA	Yes/3 Wire (NPN)
D-H7A2	-	80mA or less	Yes/3 Wire (PNP)
D-H7B	24VDC (10~28VDC)	5~40mA	Yes/2 Wire
D-H7C	24VDC (10~28VDC)	5~40mA	Yes/2 Wire
D-G59W	24VDC (10~28VDC)	40mA or less	Yes/3 Wire (NPN)
D-G5PW	-	80mA or less	Yes/3 Wire (PNP)
D-K59W	24VDC (10~28VDC)	5~40mA	Yes/2 Wire
D-G59F	-	40mA or less	Yes/4 Wire (NPN)
D-G79	24VDC (10~28VDC)	150mA or less	Yes/3 Wire (NPN)
D-H7PW	-	80mA or less	Yes/3 Wire (PNP)
D-H7BAL	24VDC (10~28VDC)	5~40mA or less	Yes/2 Wire
D-H7LF	26VDC or less	40mA or less	Yes/4 Wire (NPN)
D-H7NF	28VDC or less	40mA or less	Yes/4 Wire (NPN)
D-G5BAL	24VDC (10~28VDC)	5~40mA or less	Yes/2 Wire
D-H7PW	-	80mA or less	No/3 Wire (NPN)
D-H7BW	24VDC (10~28VDC)	5~40mA	Yes/2 Wire

ACCESSORIES SWITCH BANDS

FOR SWITCHES D-B7, D-B8, D-G7

BM1-01	.....3/4"
BM1-02	.....1"
BM1-32	.....1 1/4"
BM1-04	.....1 1/2"
BM1-05	.....2"
BM1-06	.....2 1/2"

ACCESSORIES SWITCH BANDS

FOR SWITCHES D-B5, D-B6, D-G5, D-K5

BA-01	.....3/4"
BA-02	.....1"
BA-32	.....1 1/4"
BA-04	.....1 1/2"
BA-05	.....2"
BA-06	.....2 1/2"

ACCESSORIES SWITCH BANDS

FOR SWITCHES D-C75, D-C8, D-H7

BMA1-020	.....3/4"
BMA2-025	.....1"
BMA2-032	.....1 1/4"
BMA2-040	.....1 1/2"
BMA2-050	.....2"
BMA2-063	.....2 1/2"

TECHNICAL SPECIFICATIONS

STANDARD SERIES NCG

Fluid	Air
Proof Pressure	1.5MPa / 215 PSI
Max Operating Pressure	1MPa / 145 PSI
Min Operating Pressure	0.05MPa / 7 PSI
Ambient and Fluid Temperature	10~60°C / 40~140°F
Piston Velocity	50~1000mm/s / 2 ~ 40 in/sec
Cushion	Urethane Bumper or Adjustable Air Cushion
Lubrication	Non-Lube
Mounting	Basic, Foot, Front & Rear Flange, Front & Rear Trunnion, Double & Single Clevis, Front Nose

REPAIR KIT

STANDARD SERIES NCG

Bore Size	Bumper Design	Air Cushion Design
20	CG1N20-PS	CG1A20-PS
25	CG1N25-PS	CG1A25-PS
32	CG1N32-PS	CG1A32-PS
40	CG1N40-PS	CG1A40-PS
50	CG1N50-PS	CG1A50-PS
63	CG1N63-PS	CG1A63-PS

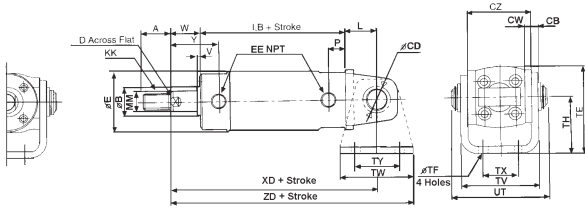
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DIMENSIONS

DOUBLE CLEVIS TYPE NC(D)GDN_-_- AND NC(D)GDA_-_-



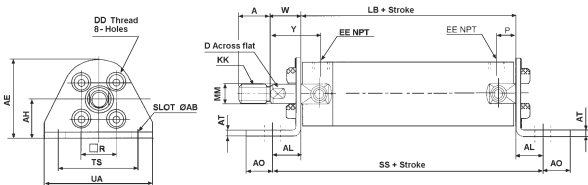
BORE SIZE	DOUBLE CLEVIS (INCH)							
	TY	TF	TV	TE	TH	TX	TW	UT
20	1.10	0.22	1.39	1.50	0.98	0.63	1.66	1.71
25	1.10	0.22	1.55	1.79	1.18	0.79	1.66	1.89
32	1.10	0.28	1.93	2.13	1.38	0.87	1.88	2.34
40	1.18	0.28	2.28	2.50	1.57	1.18	2.20	2.81
50	1.42	0.35	2.83	3.11	1.97	1.42	2.52	3.39
63	1.81	0.43	3.54	3.78	2.36	1.81	2.92	4.15

BORE SIZE	MAX STD STROKE	A	øB	CB	øCD	CW	CZ	D	øE	EE	KK	L	LB	MM	P	V	W	XD	Y	ZD
20	8	0.50	0.472 ⁰ _{-0.0011}	0.12	0.31	0.12	1.14	0.24	1.02	1/8	1/4-28 UNF	0.55	2.70	0.315	0.47	0.08	0.50	3.75	0.97	4.58
25	12	0.50	0.551 ⁰ _{-0.0011}	0.12	0.39	0.12	1.30	0.31	1.22	1/8	5/16-24 UNF	0.63	2.70	0.394	0.47	0.08	0.62	3.95	1.09	4.78
32	12	0.75	0.709 ⁰ _{-0.0011}	0.18	0.47	0.18	1.57	0.39	1.50	1/8	7/16-20 UNF	0.79	2.78	0.472	0.43	0.08	0.88	4.45	1.35	5.39
40	12	0.75	0.984 ⁰ _{-0.0013}	0.18	0.55	0.18	1.93	0.55	1.85	1/8	7/16-20 UNF	0.87	3.06	0.630	0.47	0.08	0.88	4.81	1.39	5.91
50	12	0.88	1.181 ⁰ _{-0.0013}	0.24	0.63	0.24	2.36	0.71	2.28	1/4	1/2-20 UNF	0.98	3.53	0.787	0.51	0.08	1.19	5.70	1.74	6.96
63	12	0.88	1.260 ⁰ _{-0.0015}	0.31	0.71	0.31	2.91	0.71	2.83	1/4	1/2-20 UNF	1.18	3.53	0.787	0.51	0.08	1.19	5.90	1.74	7.38

Note: Double Clevis Bracket and Double Bracket Pin must be ordered separately

DIMENSIONS

FOOT TYPE NC(D)GLN_-_- AND NC(D)GLA_-_-



LONG STROKE (INCH)

BORE SIZE	STROKE RANGE	LB	ZB
20	8.01~20	3.02	3.60
25	12.01~25	3.02	3.72
32	12.01~40	3.09	4.05
40	12.01~45	3.41	4.37
50	12.01~55	4.00	5.27
63	12.01~55	4.00	5.27

Note: Long Stroke design is a three piece construction: Rod Cover, Head Cover and Tube Body

BORE SIZE	MAX STD STROKE	A	AB	AE	AH	AL	AO	AT	D	DD	EE	KK	LB	MM	P	R	SS	TS	UA	W	Y
20	8	0.50	0.27	1.44	0.81	0.56	0.44	0.12	0.24	8-32x0.28	1/8	1/4-28 UNF	2.70	0.315	0.47	0.55	3.82	1.50	1.88	0.50	0.97
25	12	0.50	0.27	1.52	0.81	0.56	0.44	0.12	0.31	10-32x0.30	1/8	5/16-24 UNF	2.70	0.394	0.47	0.65	3.82	1.50	1.88	0.62	1.09
32	12	0.75	0.28	1.83	1.00	0.75	0.75	0.12	0.39	10-32x0.30	1/8	7/16-20 UNF	2.78	0.472	0.43	0.79	4.28	1.88	2.50	0.88	1.35
40	12	0.75	0.28	2.02	1.00	0.72	0.78	0.12	0.55	1/4-28x0.47	1/8	7/16-20 UNF	3.06	0.630	0.47	1.02	4.50	1.88	2.50	0.88	1.39
50	12	0.88	0.34	2.84	1.50	1.00	0.62	0.25	0.71	5/16-24x0.63	1/4	1/2-20 UNF	3.53	0.787	0.51	1.26	5.53	2.24	3.12	1.19	1.74
63	12	0.88	0.34	3.29	1.75	1.00	0.62	0.25	0.71	3/8-24x0.63	1/4	1/2-20 UNF	3.53	0.787	0.51	1.50	5.53	2.88	3.75	1.19	1.74

MORE DIMENSIONS
SEE NEXT PAGE

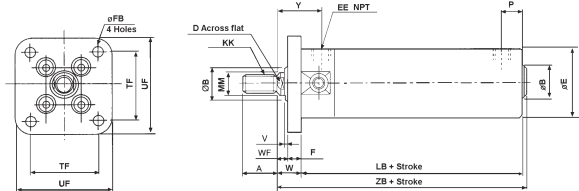
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DIMENSIONS

FRONT FLANGE TYPE NC(D)GFN_-_ AND NC(D)GFA_-_



LONG STROKE (INCH)

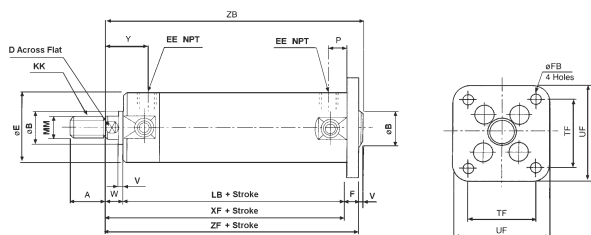
BORE SIZE	STROKE RANGE	LB	ZB
20	8.01~20	3.02	3.60
25	12.01~25	3.02	3.72
32	12.01~40	3.09	4.05
40	12.01~45	3.41	4.37
50	12.01~55	4.00	5.27
63	12.01~55	4.00	5.27

Note: Long Stroke design is a three piece construction: Rod Cover, Head Cover and Tube Body

BORE SIZE	MAX STD STROKE	A	B	D	E	EE	F	FB	KK	LB	MM	P	TF	UF	V	WF	W	Y	ZB
20	8	0.50	0.472 ⁰ _{-0.0011}	0.24	1.02	1/8	0.24	0.22	1/4-28 UNF	2.70	0.315	0.47	1.10	1.57	0.08	0.26	0.50	0.97	3.28
25	12	0.50	0.551 ⁰ _{-0.0011}	0.31	1.22	1/8	0.28	0.22	5/16-24 UNF	2.70	0.394	0.47	1.26	1.73	0.08	0.34	0.62	1.09	3.40
32	12	0.75	0.709 ⁰ _{-0.0011}	0.39	1.50	1/8	0.28	0.28	7/16-20 UNF	2.78	0.472	0.43	1.50	2.09	0.08	0.60	0.88	1.35	3.74
40	12	0.75	0.984 ⁰ _{-0.0013}	0.55	1.85	1/8	0.31	0.28	7/16-20 UNF	3.06	0.630	0.47	1.81	2.40	0.08	0.57	0.88	1.39	4.02
50	12	0.88	1.181 ⁰ _{-0.0013}	0.71	2.28	1/4	0.35	0.35	1/2-20 UNF	3.53	0.787	0.51	2.28	3.00	0.08	0.84	1.19	1.74	4.80
63	12	0.88	1.260 ⁰ _{-0.0015}	0.71	2.83	1/4	0.35	0.43	1/2-20 UNF	3.53	0.787	0.51	2.76	3.62	0.08	0.84	1.19	1.74	4.80

DIMENSIONS

REAR FLANGE TYPE NC(D)GGN_-_ AND NC(D)GGA_-_



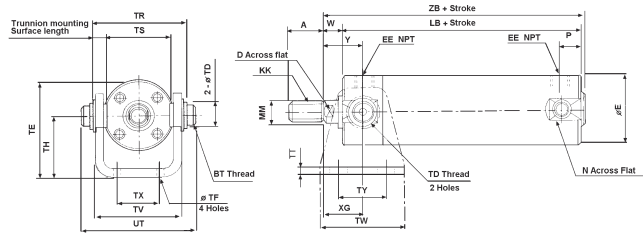
BORE SIZE	MAX STD STROKE	A	B	D	E	EE	F	FB	KK	LB	MM	P	TF	UF	V	W	XF	Y	ZB	ZF
20	8	0.50	0.472 ⁰ _{-0.0011}	0.24	1.02	1/8	0.24	0.22	1/4-28 UNF	2.70	0.315	0.47	1.10	1.57	0.08	0.50	3.20	0.97	3.52	3.44
25	12	0.50	0.551 ⁰ _{-0.0011}	0.31	1.22	1/8	0.28	0.28	5/16-24 UNF	2.70	0.394	0.47	1.26	1.73	0.08	0.62	3.32	1.09	3.68	3.60
32	12	0.75	0.709 ⁰ _{-0.0011}	0.39	1.50	1/8	0.28	0.28	7/16-20 UNF	2.78	0.472	0.43	1.50	2.09	0.08	0.88	3.66	1.35	4.02	3.94
40	12	0.75	0.984 ⁰ _{-0.0013}	0.55	1.85	1/8	0.31	0.28	7/16-20 UNF	3.06	0.630	0.47	1.81	2.40	0.08	0.88	3.94	1.39	4.33	4.25
50	12	0.88	1.181 ⁰ _{-0.0013}	0.71	2.28	1/4	0.35	0.35	1/2-20 UNF	3.53	0.787	0.51	2.28	3.00	0.08	1.19	4.72	1.74	5.15	5.07
63	12	0.88	1.260 ⁰ _{-0.0015}	0.71	2.83	1/4	0.35	0.43	1/2-20 UNF	3.53	0.787	0.51	2.76	3.62	0.08	1.19	4.72	1.74	5.15	5.07



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DIMENSIONS

FRONT TRUNNION TYPE NC(D)GUN_- AND NC(D)GUA_-



BORE SIZE	MAX STD STROKE	A	D	øE	EE	KK	LB	MM	N	P	W	XG	Y	ZB
20	8	0.50	0.24	1.02	1/8	1/4-28 UNF	2.70	0.315	0.94	0.47	0.50	0.93	0.97	3.28
25	12	0.50	0.31	1.22	1/8	5/16-24 UNF	2.70	0.394	1.14	0.47	0.62	1.05	1.09	3.40
32	12	0.75	0.39	1.50	1/8	7/16-20 UNF	2.78	0.472	1.42	0.43	0.88	1.31	1.35	3.74
40	12	0.75	0.55	1.85	1/8	7/16-20 UNF	3.06	0.630	1.73	0.47	0.88	1.35	1.39	4.02
50	12	0.88	0.71	2.28	1/4	1/2-20 UNF	3.53	0.787	2.17	0.51	1.19	1.70	1.74	4.80
63	12	0.88	0.71	2.83	1/4	1/2-20 UNF	3.53	0.787	2.72	0.51	1.19	1.70	1.74	4.80

LONG STROKE (INCH)

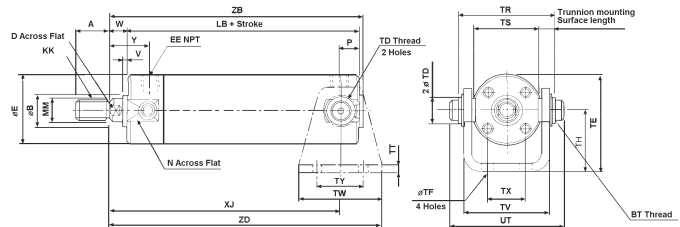
BORE SIZE	STROKE RANGE	LB	ZB
20	8.01~20	3.02	3.60
25	12.01~25	3.02	3.72
32	12.01~40	3.09	4.05
40	12.01~45	3.41	4.37
50	12.01~55	4.00	5.27
63	12.01~55	4.00	5.27

Note: Long Stroke design is a three piece construction: Rod Cover, Head Cover and Tube Body

BORE SIZE	TE	TH	TR	TS	TT	TX	TW	TY	TF	TV	TD	UT	BT
20	1.50	0.98	1.54	1.10	0.12	0.63	1.66	1.10	0.22	1.39	0.315	1.87	M5x0.8
25	1.79	1.18	1.69	1.30	0.12	0.79	1.66	1.10	0.22	1.55	0.394	2.09	M6x0.75
32	2.13	1.38	2.15	1.58	0.18	0.87	1.88	1.10	0.28	1.93	0.472	2.67	M8x1.8
40	2.50	1.57	2.58	1.93	0.18	1.18	2.20	1.18	0.28	2.28	0.551	3.10	M10x1.25
50	3.11	1.97	3.15	2.36	0.24	1.42	2.52	1.42	0.35	2.83	0.630	3.88	M12x1.25
63	3.78	2.36	3.86	2.91	0.31	1.81	2.91	1.81	0.43	3.54	0.709	4.69	M14x1.5

DIMENSIONS

REAR TRUNNION TYPE NC(D)GTN_- AND NC(D)GTA_-



BORE SIZE	MAX STD STROKE	A	B	D	E	EE	KK	LB	MM	N	P	V	W	XJ	Y	ZB	ZD
20	8	0.50	0.472 ⁰ _{-0.0011}	0.24	1.02	1/8	1/4-28 UNF	2.70	0.315	0.94	0.47	0.08	0.50	2.77	0.97	3.28	3.60
25	12	0.50	0.551 ⁰ _{-0.0011}	0.31	1.22	1/8	5/16-24 UNF	2.70	0.394	1.14	0.47	0.08	0.62	2.89	1.09	3.40	3.72
32	12	0.75	0.709 ⁰ _{-0.0011}	0.39	1.50	1/8	7/16-20 UNF	2.78	0.472	1.42	0.43	0.08	0.88	3.27	1.35	3.74	4.21
40	12	0.75	0.984 ⁰ _{-0.0013}	0.55	1.85	1/8	7/16-20 UNF	3.06	0.630	1.73	0.47	0.08	0.88	3.54	1.39	4.02	4.64
50	12	0.88	1.181 ⁰ _{-0.0013}	0.71	2.28	1/4	1/2-20 UNF	3.53	0.787	2.17	0.51	0.08	1.19	4.25	1.74	4.80	5.51
63	12	0.88	1.260 ⁰ _{-0.0015}	0.71	2.83	1/4	1/2-20 UNF	3.53	0.787	2.72	0.51	0.08	1.19	4.25	1.74	4.80	5.71

BORE SIZE	TE	TH	TR	TS	TT	TX	TW	TY	øTF	TV	øTD	UT	BT
20	1.50	0.98	1.54	1.10	0.12	0.63	1.66	1.10	0.22	1.39	0.315	1.87	M5x0.8
25	1.79	1.18	1.69	1.30	0.12	0.79	1.66	1.10	0.22	1.55	0.394	2.09	M6x0.75
32	2.13	1.38	2.15	1.58	0.18	0.87	1.88	1.10	0.28	1.93	0.472	2.67	M8x1.8
40	2.50	1.57	2.58	1.93	0.18	1.18	2.20	1.18	0.28	2.28	0.551	3.10	M10x1.25
50	3.11	1.97	3.15	2.36	0.24	1.42	2.52	1.42	0.35	2.83	0.630	3.88	M12x1.25
63	3.78	2.36	3.86	2.91	0.31	1.81	2.92	1.81	0.43	3.54	0.709	4.69	M14x1.5

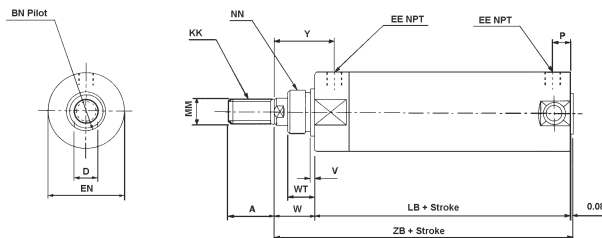
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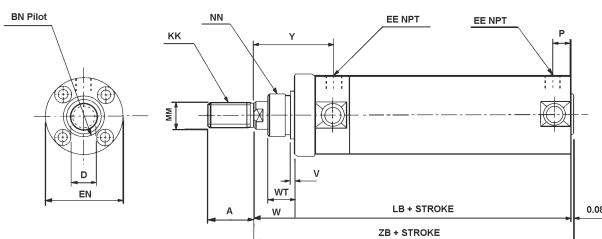
DIMENSIONS

FRONT NOSE MOUNT TYPE NC(D)GNN_- AND NC(D)GNA_- (BORE SIZE 20 AND 25)



DIMENSIONS

FRONT NOSE MOUNT TYPE NC(D)GNN_- AND NC(D)GNA_- (BORE SIZE 32, 40, 50 AND 63)



BORE SIZE	MAX STD	A	BN	D	EE	EN	KK	LB	MM	NN	P	V	W	WT	Y	ZB
	STROKE															
20	8	0.55	0.749 ^{+0.0002} _{-0.0030}	0.24	1/8	1.12	1/4-28	2.60	0.315	3/4-16	0.47	0.12	0.88	0.63	1.25	3.56
25	12	0.55	0.749 ^{+0.0002} _{-0.0030}	0.31	1/8	1.24	5/16-24	2.60	0.394	3/4-16	0.47	0.12	0.88	0.63	1.25	3.56
32	12	0.83	0.749 ^{+0.0002} _{-0.0030}	0.39	1/8	1.63	7/16-20	3.15	0.472	3/4-16	0.43	0.12	0.88	0.63	1.75	4.11
40	12	0.75	1.058 ^{+0.0002} _{-0.0030}	0.55	1/8	2.00	7/16-20	3.62	0.630	1-1/4	0.47	0.19	1.25	0.88	2.32	4.95
50	12	0.88	1.374 ⁰ _{-0.0040}	0.71	1/4	2.38	1/2-20	4.12	0.787	1 1/4-12	0.51	0.12	1.19	0.81	2.33	5.39
63	12	0.88	1.500 ⁰ _{-0.0039}	0.71	1/4	2.87	1/2-20	4.19	0.787	1 3/8-12	0.51	0.12	1.19	0.81	2.40	5.46



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TECHNICAL SPECIFICATIONS

NON-ROTATING ROD SERIES NCGK

Fluid	Air	
Max Operating Pressure	1MPa / 145PSI	
Min Operating Pressure	0.06MPa / 8PSI	
Ambient and Fluid Temperature	5~60°C / 40~140°F	
Piston Speed	50~500mm/s / 2~20in/sec	
Cushion	Rubber Cushion	
Lubrication	Non-Lube	
Non-Rotating Accuracy	ø20, ø25	±1°
	ø32	±8°
	ø40~ø63	±0.5°
Mounting Style	Basic, Axial Foot, Rod Side Flange, Head Side Flange, Rod Side Trunnion, Head Side Trunnion, Clevis, Front Nose (not available on ø20 and ø25) (ø32~ø63 as Special)	

REPAIR KITS

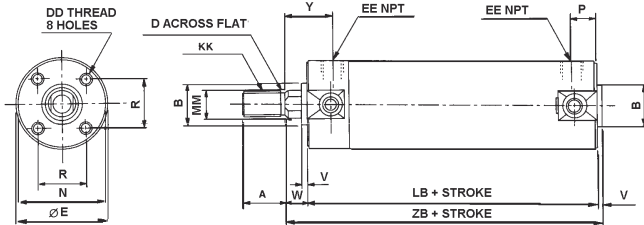
NON-ROTATING ROD SERIES NCGK

Bore Size	Bumper Design
20	CG1KN20-PS
25	CG1KN25-PS
32	NCGK032-PS
40	CG1KN40-PS
50	CG1KN50-PS
63	CG1KN63-PS

Kit contains: 1 rod seal, 1 piston seal and 2 cylinder tube seals

DIMENSIONS

NON-ROTATING ROD SERIES NCGK



LONG STROKE (INCH)

BORE SIZE	STROKE RANGE	LB	ZB
20	8.01~20	3.02	3.60
25	12.01~25	3.02	3.72
32	12.01~40	3.09	4.05
40	12.01~45	3.41	4.37
50	12.01~55	4.00	5.27
63	12.01~55	4.00	5.27

Note: Long Stroke design is a three piece construction: Rod Cover, Head Cover and Tube Body

BORE SIZE	MAX STD STROKE	DIMENSIONS (INCH)																
		MM	KK	A	BN	h8	D	DD	E	EE	LB	N	P	R	V	W	Y	ZB
20	8	0.362	1/4-28	0.50	0.472	⁰ / _{-0.0011}	0.31	8-32x0.28	1.02	1/8	2.70	0.94	0.47	0.55	0.08	0.50	0.97	3.28
25	12	0.433	5/16-24	0.50	0.551	⁰ / _{-0.0011}	0.39	10-32x0.30	1.22	1/8	2.70	1.14	0.47	0.65	0.08	0.62	1.09	3.40
32	12	0.551	7/16-20	0.75	0.709	⁰ / _{-0.0011}	0.47	10-32x0.30	1.50	1/8	2.78	1.42	0.43	0.79	0.08	0.88	1.35	3.74
40	12	0.630	7/16-20	0.75	0.984	⁰ / _{-0.0013}	0.55	1/4-28x0.47	1.85	1/8	3.06	1.73	0.47	1.02	0.08	0.88	1.39	4.02
50	12	0.787	1/2-20	0.88	1.181	⁰ / _{-0.0013}	0.71	5/16-24x0.63	2.28	1/4	3.53	2.17	0.51	1.26	0.08	1.19	1.74	4.80
63	12	0.787	1/2-20	0.88	1.260	⁰ / _{-0.0015}	0.71	3/8-24x0.63	2.83	1/4	3.53	2.72	0.51	1.50	0.08	1.19	1.74	4.80

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TECHNICAL SPECIFICATIONS
DOUBLE ROD SERIES NCGW

Fluid	Air
Max Operating Pressure	1MPa / 145PSI
Min Operating Pressure	0.08MPa / 12PSI
Ambient and Fluid Temperature	5~60°C / 40~140°F
Piston Speed	50~1000mm/s (ø20~ø63) 2~40in/sec
Cushion	Rubber or Air Cushion
Lubrication	Non-Lube
Mounting Style	Basic, Axial Foot, Flange, Rod Side Trunnion

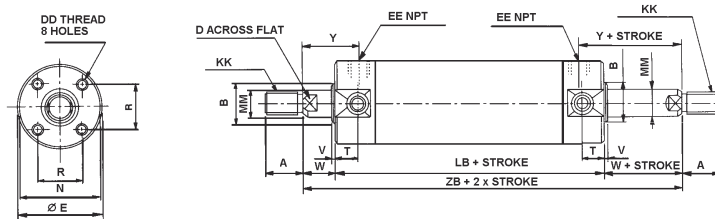
REPAIR KITS
DOUBLE ROD SERIES NCGW

Bore Size	Bumper Design	Air Cushion Design
20	CG1WN20-PS	CG1WA20-PS
25	CG1WN25-PS	CG1WA25-PS
32	CG1WN32-PS	CG1WA32-PS
40	CG1WN40-PS	CG1WA40-PS
50	CG1WN50-PS	CG1WA50-PS
63	CG1WN63-PS	CG1WA63-PS

Kit contains: 2 rod seals, 1 piston seal, 2 cylinder tube seals, 2 cushion valve seals (Air Cushion design only)

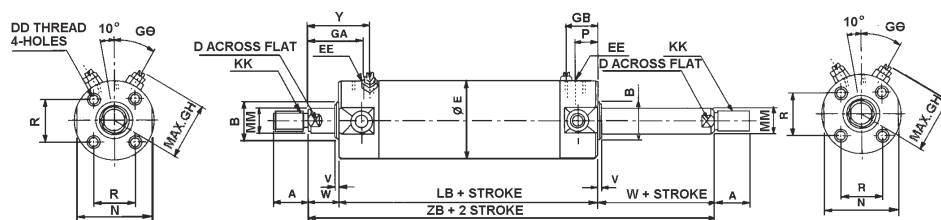
DIMENSIONS
NON-ROTATING ROD SERIES NCGW

NC(D)GWN - _



BORE SIZE	MAX STD STROKE	DIMENSIONS															
		MM	KK	A	B	D	E	EE	LB	N	R	T	V	W	Y	ZB	
20	14	0.315	1/4-28	0.50	0.472 ⁰ _{-0.0011}	0.24	1.02	1/8	3.02	0.94	0.55	0.43	0.08	0.50	0.97	4.02	
25	16	0.394	5/16-24	0.50	0.551 ⁰ _{-0.0011}	0.31	1.22	1/8	3.02	1.14	0.65	0.43	0.08	0.62	1.09	4.26	
32	18	0.472	7/16-20	0.75	0.709 ⁰ _{-0.0011}	0.39	1.50	1/8	3.09	1.42	0.79	0.43	0.08	0.88	1.35	4.85	
40	31	0.630	7/16-20	0.75	0.984 ⁰ _{-0.0013}	0.55	1.85	1/8	3.41	1.73	1.02	0.47	0.08	0.88	1.39	5.17	
50	47	0.787	1/2-20	0.88	1.181 ⁰ _{-0.0013}	0.71	2.28	1/4	4.00	2.17	1.26	0.51	0.08	1.19	1.74	6.38	
63	47	0.787	1/2-20	0.88	1.260 ⁰ _{-0.0015}	0.71	2.83	1/4	4.00	2.72	1.50	0.51	0.08	1.19	1.74	6.38	

NC(D)GWA - _

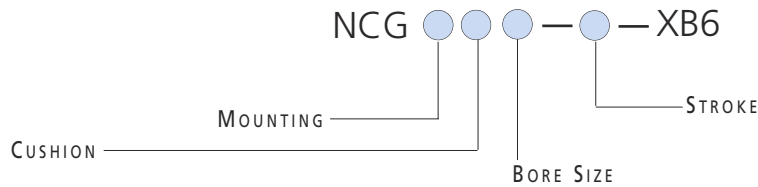


BORE SIZE	MAX STD STROKE	DIMENSIONS																			
		MM	KK	A	B	D	DD	E	EE	GA	GB	GH	GO	LB	N	P	R	V	W	Y	ZB
20	14	0.315	1/4-28	0.50	0.472 ⁰ _{-0.0011}	0.24	8-32x0.28	1.02	10-32 UNF	1.05	0.55	0.90	30°	3.02	0.94	0.47	0.55	0.08	0.50	0.97	4.02
25	16	0.394	5/16-24	0.50	0.551 ⁰ _{-0.0011}	0.31	10-32x0.30	1.22	10-32 UNF	1.17	0.55	0.98	30°	3.02	1.14	0.47	0.65	0.08	0.62	1.09	4.26
32	18	0.472	7/16-20	0.75	0.709 ⁰ _{-0.0011}	0.39	10-32x0.30	1.50	1/8	1.43	0.51	1.12	25°	3.09	1.42	0.43	0.79	0.08	0.88	1.35	4.85
40	31	0.630	7/16-20	0.75	0.984 ⁰ _{-0.0013}	0.55	1/4-28x0.47	1.85	1/8	1.47	0.55	1.30	20°	3.41	1.73	0.47	1.02	0.08	0.88	1.39	5.17
50	47	0.787	1/2-20	0.88	1.181 ⁰ _{-0.0013}	0.71	5/16-24x0.63	2.28	1/4	1.82	0.59	1.60	20°	4.00	2.17	0.51	1.26	0.08	1.19	1.74	6.38
63	47	0.787	1/2-20	0.88	1.260 ⁰ _{-0.0015}	0.71	3/8-24x0.63	2.83	1/4	1.82	0.59	1.87	20°	4.00	2.72	0.51	1.50	0.08	1.19	1.74	6.38

HOW TO
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SERIES NCG AIR CYLINDER OPTIONS

HIGH TEMPERATURE RESISTANT CYLINDER - XB6 OPTION



TECHNICAL
SPECIFICATIONS

SERIES NCG - XB6 OPTION

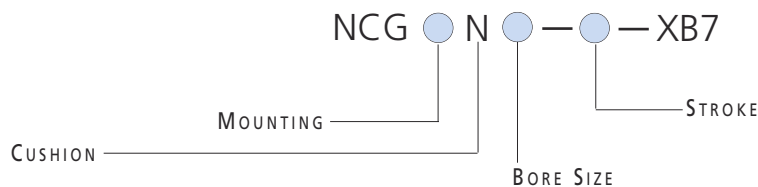
Bore (mm)	ø20, 25,32,40,50,63	
Action	Double Acting	
Fluid	Air	
Ambient Temperature Range	-20~150°C / -4~+300°F	
Action Velocity	50~500mm/s / 2~20 in/sec	
Cushion	ø20, 25, 32 ø40, 50, 63	Type: N = Without Cushion Type: A = With Air Cushion
Lubrication	Teflon® based Grease	
Mounting Style	Basic, Axial Foot, Rod Side Flange, Head Side Flange, Rod Side Trunnion, Head Side Trunnion, Single Clevis, Double Clevis, Nose	
Auto Switch Capable	No	

Note: Major dimensions are the same as those of the Double Acting Single Rod

HOW TO
ORDER

SERIES NCG AIR CYLINDER OPTIONS

LOW TEMPERATURE RESISTANT CYLINDER - XB7 OPTION



TECHNICAL
SPECIFICATIONS

SERIES NCG - XB7 OPTION

Bore (mm)	ø20, 25,32,40	
Action	Double Acting	
Fluid	Air	
Ambient Temperature Range	-30~70°C / -22~+158°F	
Piston Velocity	50~500mm/s / 2~20 in/sec	
Cushion	No	
Material	Seals: Low Nitrile Rubber Wearing Ring: Resin	
Lubrication	Teflon® based Grease	
Mounting Style	Basic, Axial Foot, Rod Side Flange, Head Side Flange, Rod Side Trunnion, Head Side Trunnion, Single Clevis, Double Clevis, Nose	
Auto Switch Capable	No	

Note: Major dimensions are the same as those of the Double Acting Single Rod

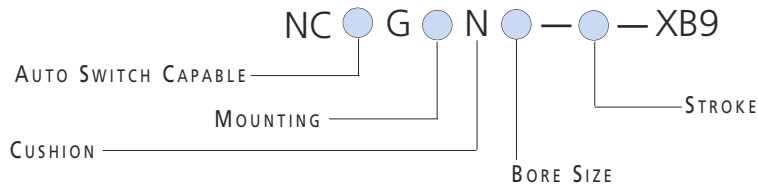
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HOW TO
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SERIES NCG AIR CYLINDER OPTIONS
LOW SPEED CYLINDER - XB9 OPTION



TECHNICAL
SPECIFICATIONS

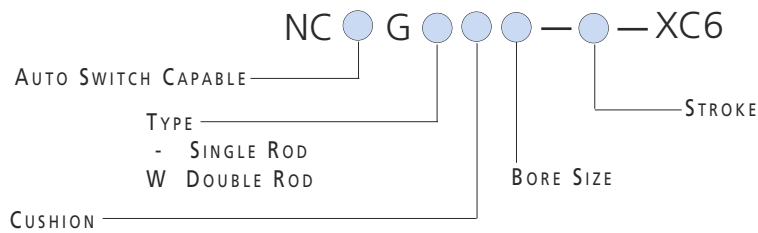
SERIES NCG - XB9 OPTION

Bore (mm)	ø20, 25,32,40,50,63
Action	Double Acting
Fluid	Air
Maximum Operating Pressure	1MPa / 145 PSI
Minimum Operating Pressure	0.05MPa / 8 PSI
Piston Velocity	10~50mm/s / 0.4 ~ 2 in/sec
Mounting Style	Basic, Axial Foot, Rod Side Flange, Head Side Flange, Rod Side Trunnion, Head Side Trunnion, Clevis
Auto Switch Capable	Yes

Note: Major dimensions are the same as those of the Double Acting Single Rod

HOW TO
ORDER

SERIES NCG AIR CYLINDER OPTIONS
STAINLESS PISTON ROD - XC6 OPTION



TECHNICAL
SPECIFICATIONS

SERIES NCG - XC6 OPTION

Bore (mm)	ø20, 25,32,40,50,63
Action	Double Acting/Single Rod, Double Rod
Piston Rod & Rod End Nut Material	Stainless Steel
Maximum Operating Pressure	1MPa / 145 PSI
Minimum Operating Pressure	Single Rod: 8 PSI / Double Rod: 11 PSI
Piston Velocity	50~1000mm/s / 2 ~ 40 in/sec
Mounting Style	Basic, Axial Foot, Flange, Trunnion
Auto Switch Capable	Yes

Note: Major dimensions are the same as those of the Double Acting Single or Double Rod

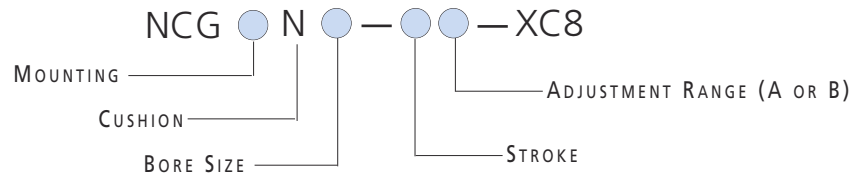


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HOW TO ORDER

SERIES NCG AIR CYLINDER OPTIONS

STROKE ADJUSTMENT (EXTEND) - XC8 OPTION



TECHNICAL SPECIFICATIONS

SERIES NCG - XC8 OPTION

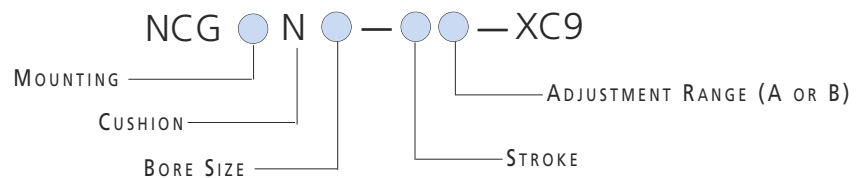
Bore (mm)	ø20, 25, 32, 40, 50, 63
Action	Double Acting
Fluid	Air
Maximum Operating Pressure	1MPa / 145 PSI
Minimum Operating Pressure	0.07MPa / 11 PSI
Piston Velocity	Out Stroke: 50~500mm/s / 2 ~ 20 in/sec Return Stroke: 50~1000mm/s / 2 ~ 40 in/sec
Cushion	Rubber Cushion
Ambient and Fluid Temperature	5 ~ 60°C / 40 ~ 140°F
Stroke Adjustment Range (Adjustment Symbol)	A: 0 ~ 1 inch B: 0 ~ 2 inches
Stroke Adjustment System	Stopper Adjustment
Mounting Style	Basic, Axial Foot, Rod Side Flange, Rod Side Trunnion, Head Side Trunnion, Nose

Note: See Catalog N303 for more information

HOW TO ORDER

SERIES NCG AIR CYLINDER OPTIONS

STROKE ADJUSTMENT (RETRACT) - XC9 OPTION



TECHNICAL SPECIFICATIONS

SERIES NCG - XC9 OPTION

Bore (mm)	ø20, 25, 32, 40, 50, 63
Action	Double Acting
Fluid	Air
Maximum Operating Pressure	1MPa / 145 PSI
Minimum Operating Pressure	0.05MPa / 7 PSI
Piston Velocity	Out Stroke: 50~1000mm/s / 2 ~ 40 in/sec Return Stroke: 50~500mm/s / 2 ~ 20 in/sec
Cushion	Rubber Cushion
Ambient and Fluid Temperature	5 ~ 60°C / 40 ~ 140°F
Stroke Adjustment Range (Adjustment Symbol)	A: ~ 25.4mm / 1 inch B: ~ 50.8mm / 2 inches
Stroke Adjustment System	Adjusting Bolt
Mounting Style	Basic, Axial Foot, Rod Side Flange, Rod Side Trunnion, Head Side Flange, Head Side Trunnion, Nose

Note: See Catalog N303 for more information

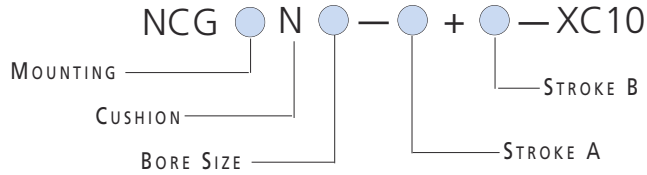
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HOW TO ORDER

SERIES NCG AIR CYLINDER OPTIONS
DUAL STROKE - XC10 OPTION



TECHNICAL SPECIFICATIONS

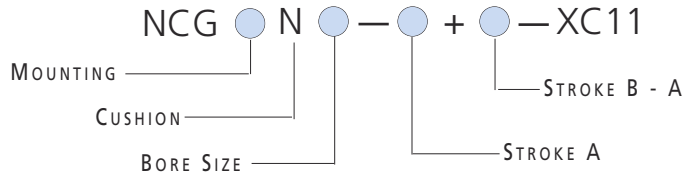
SERIES NCG - XC10 OPTION

Bore (mm)	ø20, 25, 32, 40, 50, 63
Action	Double Acting
Fluid	Air
Maximum Operating Pressure	1MPa / 145 PSI
Minimum Operating Pressure	0.05MPa / 7 PSI
Piston Velocity	50~1000mm/s / 2 ~ 40 in/sec
Cushion	Rubber Cushion
Ambient and Fluid Temperature	5~60°C / 40 ~ 140°F
Mounting Style	Basic, Axial Foot, Flange, Trunnion

Note: See Catalog N303 for more information

HOW TO ORDER

SERIES NCG AIR CYLINDER OPTIONS
3 POSITION TANDEM - XC11 OPTION



TECHNICAL SPECIFICATIONS

SERIES NCG - XC11 OPTION

Bore (mm)	ø20, 25, 32, 40, 50, 63
Action	Double Acting
Fluid	Air
Maximum Operating Pressure	1MPa / 145 PSI
Minimum Operating Pressure	0.05MPa / 7 PSI
Piston Velocity	2 ~ 40 in/sec (5~1000mm/s)
Cushion	Rubber Cushion
Ambient and Fluid Temperature	5~60°C / 40 ~ 140°F
Stroke Range	ø20: ~8 inches (0~208mm) ø25 ~ ø63: ~12 inches (0~305mm)
Mounting Style	Basic, Axial Foot, Flange, Rod Side Flange, Head Side Flange, Rod Side Trunnion, Head Side Trunnion, Clevis

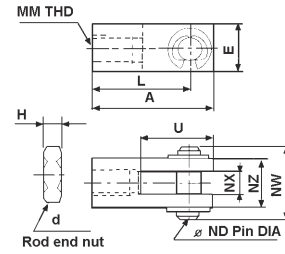
Note: See Catalog N303 for more information



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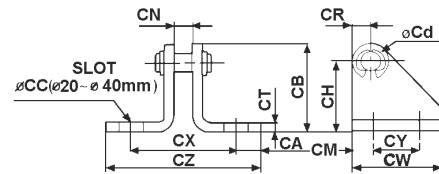
ACCESSORIES
SERIES NCG
PISTON ROD CLEVIS

Part No	Bore (mm)	A	d	E	H	L	MM	ND	NX	NW	NZ	U
NY-075	20	1.19	1/4-28 UNF	0.51	0.16	0.94	1/4-28 UNF	0.25	0.25	0.71	0.51	0.69
NY-106	25	1.19	5/16-24 UNF	0.51	0.19	0.94	5/16-24 UNF	0.25	0.25	0.71	0.51	0.69
NY-125	32 • 40	1.69	7/16-20 UNF	0.75	0.25	1.32	7/16-20 UNF	0.38	0.38	1.02	0.75	0.94
NY-G050	50 • 63	1.69	1/2-20 UNF	0.75	0.31	1.32	1/2-20 UNF	0.38	0.38	1.02	0.75	0.94



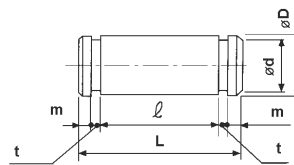
ACCESSORIES
SERIES NCG
SINGLE CLEVIS BRACKET

Part No	Bore (mm)	CA	CB	CC	Cd	CH	CM	CN	CR	CT	CX	CW	CY	CZ
NCG-PC020	20 & 25	0.35	1.18	0.27	0.25	0.87	0.18	0.38	0.31	0.12	1.25	1.10	0.75	1.95
NCG-PC032	32	0.35	1.18	0.27	0.25	0.87	0.18	0.50	0.31	0.12	1.37	1.10	0.75	1.07
NCG-PC040	40	0.36	1.75	0.27	0.25	1.38	0.25	0.63	0.37	0.18	1.87	1.50	1.00	2.60
NCG-PC050	50	0.44	1.75	0.76	0.38	1.38	0.25	0.75	0.37	0.24	2.12	1.50	1.00	3.00
NCG-PC063	63	0.44	2.12	0.76	0.38	1.75	0.25	0.75	0.37	0.24	2.12	1.50	1.00	3.00



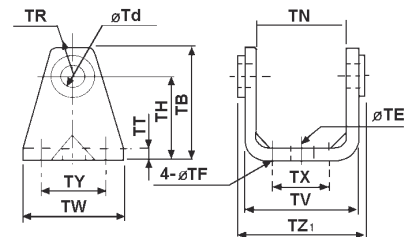
ACCESSORIES
SERIES NCG
SINGLE CLEVIS PIN

Part No	Bore (mm)	øD	L	ød	ℓ	m	t
NCG-SP020	20	0.25	0.83	0.21	0.65	0.06	0.03
NCG-SP025	25	0.25	0.83	0.21	0.65	0.06	0.03
NCG-SP032	32	0.25	0.98	0.21	0.76	0.08	0.03
NCG-SP040	40	0.38	1.24	0.30	1.00	0.08	0.04
NCG-SP050	50	0.38	1.50	0.30	1.24	0.09	0.04
NCG-SP063	63	0.38	1.50	0.30	1.24	0.09	0.04



ACCESSORIES
SERIES NCG
DOUBLE CLEVIS PIN

Part No	Bore (mm)	øD	L	ød	ℓ	m	t
NCD-G02	20	0.315	1.71	0.30	1.52	0.06	0.04
NCD-G025	25	0.394	1.89	0.38	1.68	0.06	0.05
NCD-G03	32	0.472	2.34	0.45	2.12	0.06	0.05
NCD-G04	40	0.551	2.81	0.53	2.56	0.08	0.05
NCD-G05	50	0.630	3.38	0.60	3.13	0.08	0.05
NCD-G06	63	0.709	4.15	0.67	3.85	0.10	0.05

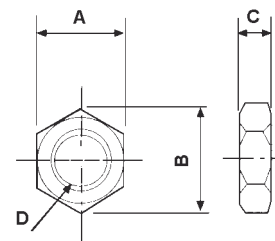


ACCESSORIES
SERIES NCG
TRUNNION BRACKET AND DOUBLE CLEVIS BRACKET

Part No	Bore (mm)	TB	øTD	øTE	øTF	TH	TN	TR	TT	TV	TW	TX	TY	TZ
NCG-P020	20	1.42	0.315	0.39	0.22	0.98	1.14	0.51	0.12	1.39	1.65	0.63	1.10	1.50
NCG-P025	25	1.69	0.394	0.39	0.22	1.18	1.30	0.59	0.12	1.55	1.65	0.79	1.10	1.65
NCG-P032	32	1.97	0.472	0.39	0.27	1.38	1.57	0.67	0.18	1.93	1.89	0.87	1.10	2.10
NCG-P040	40	2.28	0.551	0.39	0.27	1.57	1.93	0.83	0.18	2.28	2.20	1.18	1.18	2.53
NCG-P050	50	2.75	0.630	0.79	0.35	1.97	2.36	0.91	0.24	2.83	2.52	1.42	1.42	3.10
NCG-P063	63	3.23	0.709	0.79	0.43	2.36	2.91	0.98	0.31	3.54	2.91	1.81	1.81	3.80

ACCESSORIES
SERIES NCG
ROD JAM NUT

Part No	Bore (mm)	B	C	A	D
JM-025	20	0.50	0.16	0.44	1/4-28 UNF
JM-03	25	0.58	0.19	0.50	5/16-24 UNF
JM-045	32 • 40	0.79	0.26	0.69	7/16-20 UNF
JM-05	50 • 63	0.87	0.32	0.75	1/2-20 UNF



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