

Piston Rod Cylinders Bellows Cylinders

Advanced cylinder concepts with outstanding performance define the ORIGA piston rod cylinder programme.



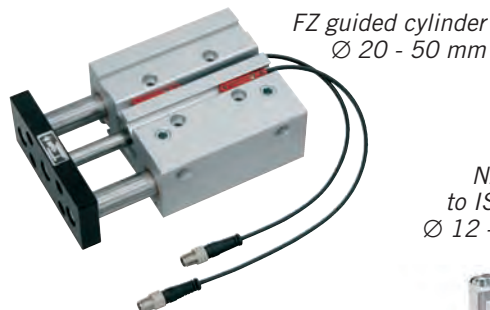
Consistent design of accessories for all cylinder series, e.g. swivel mountings, pivots, piston rod eyes, magnetic switches, etc.

The resulting advantages are the basis for trouble-free operation – whether as individual components or in a combined system, meeting the demands of modern automation for high reliability and high economic efficiency. Special solutions can be developed for optimum efficiency in specific applications.

*DZ tie rod cylinder
to ISO 15552 (ISO 6431)
Ø 125 - 320 mm*

*DZB blocking cylinder
mountings to ISO 15552
(ISO 6431)
Ø 32 - 125 mm*

ST stop cylinder



*FZ guided cylinder
Ø 20 - 50 mm*

*NZ cylinder
to ISO 21287
Ø 12 - 100 mm*

*SZ short stroke cylinder
Ø 12 - 100 mm*

*AZV non-rotating cylinder
mountings to
ISO 15552 (ISO 6431)
Ø 32 - 100 mm*

*AZ cylinder
to ISO 15552 (ISO 6431)
VDMA 24562
Ø 32 - 100 mm*

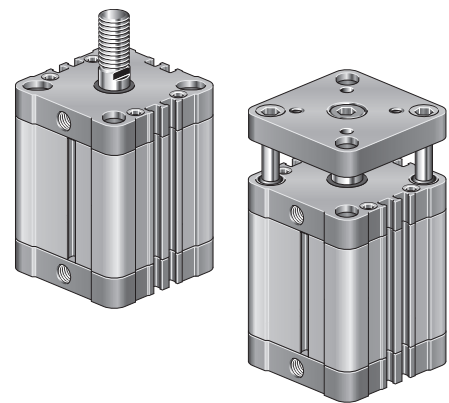
*R round cylinder
to ISO 6432 Ø 10 - 25 mm
R round cylinder Ø 32 - 63 mm*

*SP bellows cylinder
single, double, triple convolution*

NS - Compact Cylinders

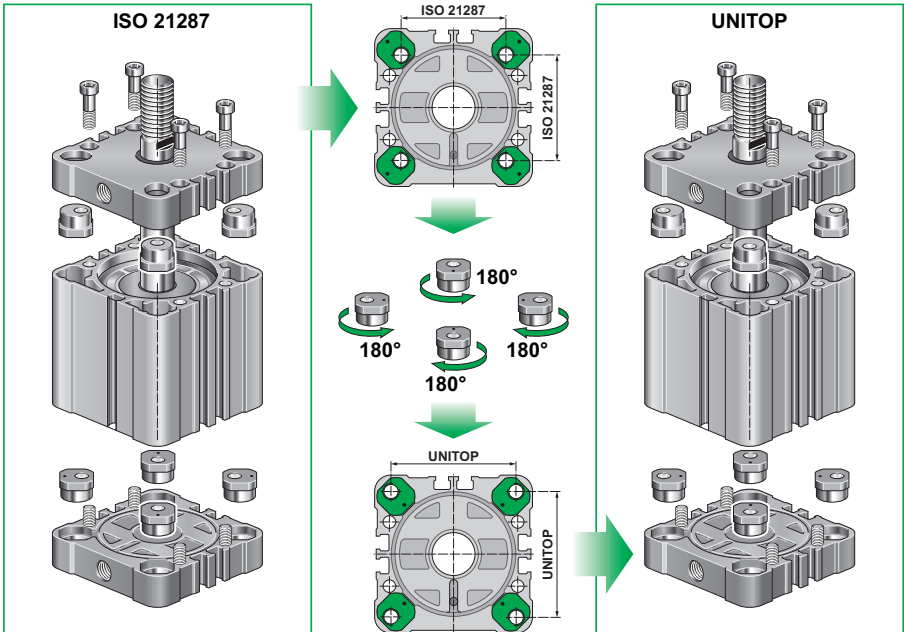
Ø 16-100 mm

to ISO 21287 and UNITOP



NS series is a completely new range of ORIGA compact cylinders. It has been worked out in one set of common basic components for a final assembly to ISO 21287 standard as well as UNITOP standard, which is covered by patent.. An extremely construction simplicity, new design and advanced technology make the compact series NS highly competitive, able to meet even the hardest request of performance and reliability and give it a wide duty flexibility.

What also greatly significant is the advantage of a drastic reduction in construction elements, though saving the need of offering 2 standard version of product.



TECHNICAL FEATURES

Head	Die- cast aluminium alloy.	Ambient temperature range	-20 °C ÷ +80 °C.
Piston rod	Ø16 ÷ 25 stainless steel X5CrNi1810, Ø32 ÷ 100 stainless steel X20Cr13.	Temperature range of medium	0 °C ÷ +30 °C.
Barrel	Anodized profiled aluminium tube.	Lubrication	Not required.
Seals	Polyurethan.	Medium	Filtered air.
	Mechanical buffers.	Max operating pressure	10 bar.

	Bore	Standard stroke																	
		5	10	15	20	25	30	40	50	60	70	80	90	100	125	160	200	250	
NS6...-...-..	16	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
NSD6...-...-..	20	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
NSV6...-...-..	25	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	32	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	40	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	50	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	63	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	80	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	100	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

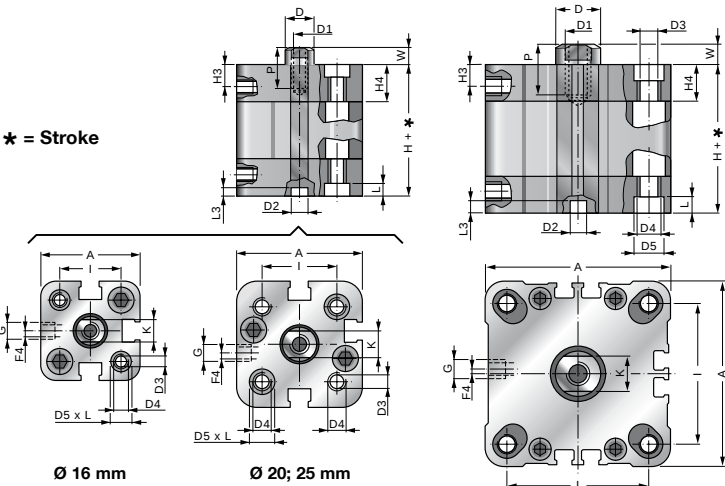
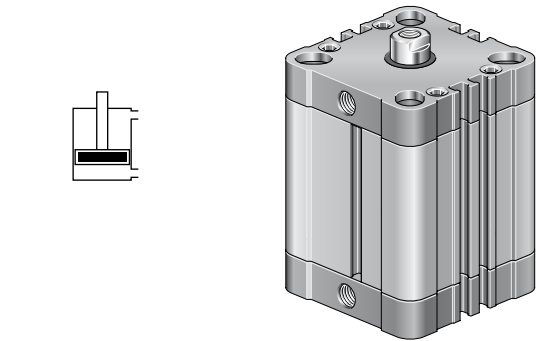
Double acting magnetic cylinder

NS - Compact Cylinders

Ø 16-100 mm to ISO 21287 and UNITOP

NS6...-.....-..

DOUBLE ACTING MAGNETIC CYLINDER



STANDARD ISO 21287																	
Ø	A	ØD	ØD2	ØD3	ØD4	ØD5	G	H3	H4	I	K	L	L3	W	F4	H	Code
16	29,2	8	6	3,3	M4	6	M5	7	12,8	18	6	3,5	2,2	4,5	0	37 (±0,5)	NS6016-.....-I.
20	37	10	6	4,2	M5	7,5	M5	7	12,3	22	8	4,2	2,5	6	4	37 (±0,5)	NS6020-.....-I.
25	41	10	6	4,2	M5	7,5	M5	7,5	13,5	26	8	4,2	2,5	6	3	39 (±0,5)	NS6025-.....-I.
32	49,2	12	6	5,2	M6	9	G1/8	7,5	15	32,5	10	4,5	2	7	0	44 (±0,5)	NS6032-.....-I.
40	57,2	12	6	5,2	M6	9	G1/8	7,5	15	38	10	4,2	2	7	0	45 (±0,7)	NS6040-.....-I.
50	67	16	8	6,7	M8	10,5	G1/8	7,5	14,6	46,5	13	4,7	2,5	8	0	45 (±0,7)	NS6050-.....-I.
63	80	16	8	6,7	M8	10,5	G1/8	8	15,5	56,5	13	5,2	2,5	8	0	49 (±0,8)	NS6063-.....-I.
80	102,6*	20	8	8,5	M10	13,5	G1/8	9	17	72	17	5,2	2,5	10	0	54 (±0,8)	NS6080-.....-I.
100	124*	25	8	8,5	M10	13,5	G1/4*	10	20	89	22	5,2	3	10	0	67 (±1,0)	NS6100-.....-I.

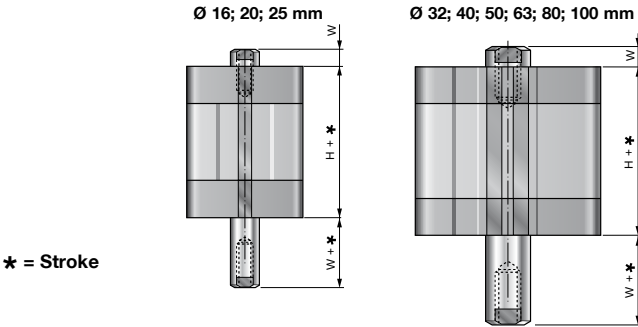
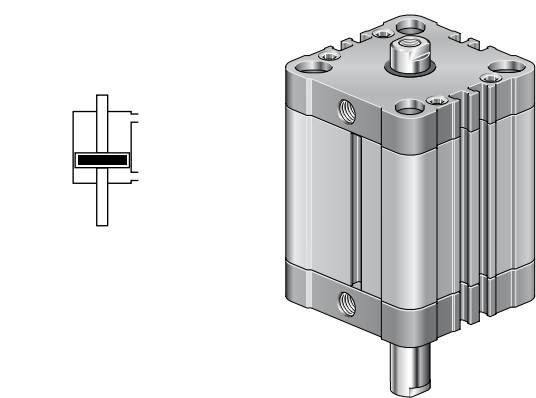
STANDARD UNITOP																	
Ø	A	ØD	ØD2	ØD3	ØD4	ØD5	G	H3	H4	I	K	L	L3	W	F4	H	Code
16	29,2	8	6	3,3	M4	6	M5	7	12,8	18	6	3,5	2,2	4,5	0	38 (±0,5)	NS6016-....-U.
20	37	10	6	4,2	M5	7,5	M5	7	12,3	22	8	4,2	2,5	4,5	4	38 (±0,5)	NS6020-....-U.
25	41	10	6	4,2	M5	7,5	M5	7,5	13,5	26	8	4,2	2,5	5,5	3	39,5 (±0,5)	NS6025-....-U.
32	49,2	12	6	5,2	M6	9	G1/8	7,5	15	32	10	4,5	2	6	0	44,5 (±0,5)	NS6032-....-U.
40	57,2	12	6	5,2	M6	9	G1/8	7,5	15	42	10	4,2	2	6,5	0	45,5 (±0,7)	NS6040-....-U.
50	67	16	8	6,7	M8	10,5	G1/8	7,5	14,6	50	13	4,7	2,5	7,5	0	45,5 (±0,7)	NS6050-....-U.
63	80	16	8	8,5	M10	13,5	G1/8	8	15,5	62	13	5,2	2,5	7,5	0	50 (±0,8)	NS6063-....-U.
80	102,6	20	8	8,5	M10	13,5	G1/8	9	17	82	17	5,2	2,5	8	0	56 (±0,8)	NS6080-....-U.
100	124	25	8	8,5	M10	13,5	G1/4	10	20	103	22	5,2	3	10	0	66,5 (±1,0)	NS6100-....-U.

Thrust force Traction force Pressure range

Ø	P= 6 bar	P= 6 bar	bar
16	121 N	91 N	1,6 - 10
20	188 N	142 N	1,5 - 10
25	295 N	248 N	1,2 - 10
32	482 N	415 N	1,1 - 10
40	754 N	687 N	0,9 - 10
50	1178 N	1058 N	0,8 - 10
63	1869 N	1750 N	0,7 - 10
80	3014 N	2829 N	0,6 - 10
100	4710 N	4420 N	0,5 - 10

NSD6...-.....-..

DOUBLE ACTING MAGNETIC THROUGH ROD CYLINDER



STANDARD ISO 21287			
Ø	W	H	Code
16	4,5	37 (±0,5)	NSD6016-.....-I.
20	6	37 (±0,5)	NSD6020-.....-I.
25	6	39 (±0,5)	NSD6025-.....-I.
32	7	44 (±0,5)	NSD6032-.....-I.
40	7	45 (±0,7)	NSD6040-.....-I.
50	8	45 (±0,7)	NSD6050-.....-I.
63	8	49 (±0,8)	NSD6063-.....-I.
80	10	54 (±0,8)	NSD6080-.....-I.
100	10	67 (±1,0)	NSD6100-.....-I.

STANDARD UNITOP			
Ø	W	H	Code
16	4,5	38 (±0,5)	NSD6016-.....-U.
20	4,5	38 (±0,5)	NSD6020-.....-U.
25	5,5	39,5 (±0,5)	NSD6025-.....-U.
32	6	44,5 (±0,5)	NSD6032-.....-U.
40	6,5	45,5 (±0,7)	NSD6040-.....-U.
50	7,5	45,5 (±0,7)	NSD6050-.....-U.
63	7,5	50 (±0,8)	NSD6063-.....-U.
80	8	56 (±0,8)	NSD6080-.....-U.
100	10	66,5 (±1,0)	NSD6100-.....-U.

NS6...-.....-M

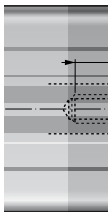
THREADED MALE PISTON ROD VERSION



STANDARD ISO 21287			STANDARD UNITOP		
Ø	K1	T1	Ø	K1	T1
16	M6x1	12	16	M8x1,25	20
20	M8x1,25	16	20	M10x1,25	22
25	M8x1,25	16	25	M10x1,25	22
32	M10x1,25	19	32	M10x1,25	22
40	M10x1,25	19	40	M10x1,25	22
50	M12x1,25	22	50	M12x1,25	24
63	M12x1,25	22	63	M12x1,25	24
80	M16x1,5	28	80	M16x1,5	32
100	M16x1,5	28	100	M20x1,5	40

NS6...-.....-F

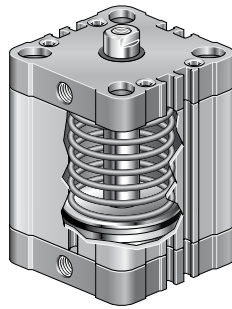
THREADED FEMALE PISTON ROD VERSION



STANDARD ISO 21287			STANDARD UNITOP		
Ø	ØD1	P	Ø	ØD1	P
16	M4	8	16	M4	8
20	M6	10	20	M6	10
25	M6	10	25	M6	10
32	M8	12	32	M8	12
40	M8	12	40	M8	12
50	M10	16	50	M8	12
63	M10	16	63	M8	14
80	M12	20	80	M10	15
100	M12	20	100	M12	20

NS7...-.....-..

SIMPLE ACTING FRONT SPRING

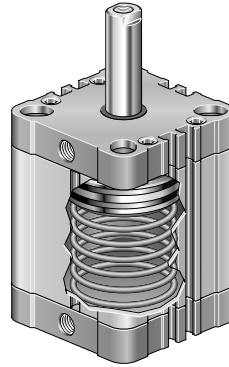


SPRING FORCE (N) STROKE 0 - 25 mm

Ø	F spring max (stroke 0 mm)	F spring min (stroke 25 mm)	H ISO 21287	H UNITOP
16	21	12	37 (±0,5)	38 (±0,5)
20	39	22	37 (±0,5)	38 (±0,5)
25	45	28	39 (±0,5)	39,5 (±0,5)
32	45	28	44 (±0,5)	44,5 (±0,5)
40	61	39	45 (±0,7)	45,5 (±0,7)
50	90	58	45 (±0,7)	45,5 (±0,7)
63	95	62	49 (±0,8)	50 (±0,8)
80	115	150	54 (±0,8)	56 (±0,8)
100	125	160	67 (±1,0)	66,5 (±1,0)

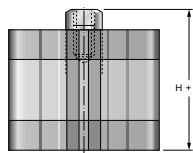
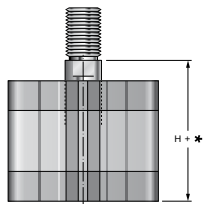
NS8...-.....-..

SIMPLE ACTING REAR SPRING

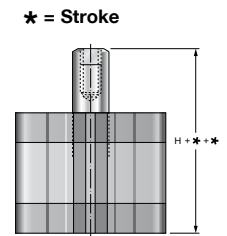
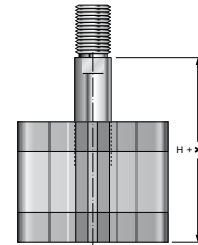


SPRING FORCE (N) STROKE 26 - 50 mm

Ø	F spring max (stroke 26 mm)	F spring min (stroke 50 mm)	H ISO 21287	H UNITOP
16	21	12	47 (±0,5)	48 (±0,5)
20	39	22	47 (±0,5)	48 (±0,5)
25	45	28	59 (±0,5)	59,5 (±0,5)
32	45	28	64 (±0,5)	64,5 (±0,5)
40	61	39	65 (±0,7)	65,5 (±0,7)
50	90	58	65 (±0,7)	65,5 (±0,7)
63	95	62	69 (±0,8)	70 (±0,8)
80	115	150	84 (±0,8)	86 (±0,8)
100	125	160	97 (±1,0)	96,5 (±1,0)



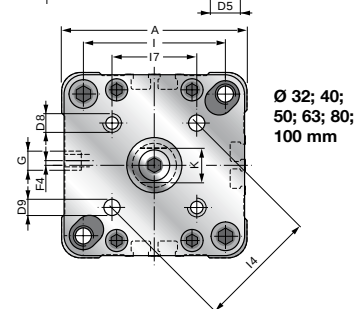
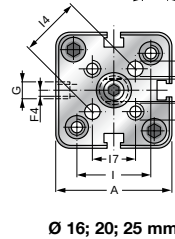
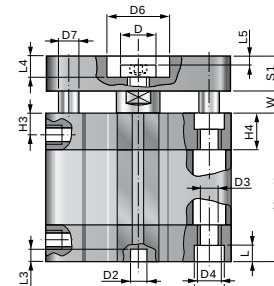
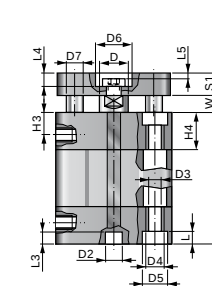
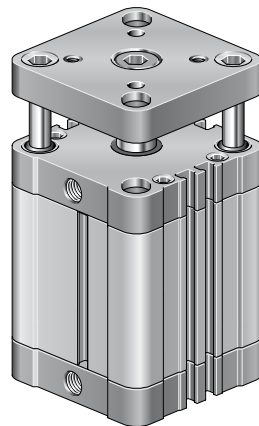
Bore	Standard stroke							
	5	10	15	20	25	30	40	50
16	•	•	•	•	•	•	•	•
20	•	•	•	•	•	•	•	•
25	•	•	•	•	•	•	•	•
32	•	•	•	•	•	•	•	•
40	•	•	•	•	•	•	•	•
50	•	•	•	•	•	•	•	•
63	•	•	•	•	•	•	•	•
80	•	•	•	•	•	•	•	•
100	•	•	•	•	•	•	•	•



* = Stroke

NSV6...-.....-F

DOUBLE ACTING MAGNETIC CYLINDER NON ROTATING



Ø 16; 20; 25 mm

* = Stroke

	Ø	A	ØD	ØD2	ØD3	ØD4	ØD5	G	H3	H4	I	K	L	L3	W	F4	S1	W	H	Code
STANDARD ISO 21287	16	29,2	8	6	3,3	M4	6	M5	7	12,8	18	6	3,5	2,2	4,5	0	6	4,5	37 (±0,5)	NSV6016-.....-IF
	20	37	10	6	4,2	M5	7,5	M5	7	12,3	22	8	4,2	2,5	6	4	8	4,5	37 (±0,5)	NSV6020-.....-IF
	25	41	10	6	4,2	M5	7,5	M5	7,5	13,5	26	8	4,2	2,5	6	3	8	5,5	39 (±0,5)	NSV6025-.....-IF
	32	49,2	12	6	5,2	M6	9	G1/8	7,5	15	32,5	10	4,5	2	7	0	10	6	44 (±0,5)	NSV6032-.....-IF
	40	57,2	12	6	5,2	M6	9	G1/8	7,5	15	38	10	4,2	2	7	0	10	6,5	45 (±0,7)	NSV6040-.....-IF
	50	67	16	8	6,7	M8	10,5	G1/8	7,5	14,6	46,5	13	4,7	2,5	8	0	12	7,5	45 (±0,7)	NSV6050-.....-IF
	63	80	16	8	6,7	M8	10,5	G1/8	8	15,5	56,5	13	5,2	2,5	8	0	12	7,5	49 (±0,8)	NSV6063-.....-IF
	80	102,6*	20	8	8,5	M10	13,5	G1/8	9	17	72	17	5,2	2,5	10	0	14	8	54 (±0,8)	NSV6080-.....-IF
	100	124*	25	8	8,5	M10	13,5	G1/4*	10	20	89	22	5,2	3	10	0	14	10	67 (±1,0)	NSV6100-.....-IF

	Ø	A	ØD	ØD2	ØD3	ØD4	ØD5	G	H3	H4	I	K	L	L3	W	F4	S1	W	H	Code
STANDARD UNITOP	16	29,2	8	6	3,3	M4	6	M5	7	12,8	18	6	3,5	2,2	4,5	0	6	4,5	38 (±0,5)	NSV6016-.....-UF
	20	37	10	6	4,2	M5	7,5	M5	7	12,3	22	8	4,2	2,5	4,5	4	8	4,5	38 (±0,5)	NSV6020-.....-UF
	25	41	10	6	4,2	M5	7,5	M5	7,5	13,5	26	8	4,2	2,5	5,5	3	8	5,5	39,5 (±0,5)	NSV6025-.....-UF
	32	49,2	12	6	5,2	M6	9	G1/8	7,5	15	32	10	4,5	2	6	0	10	6	44,5 (±0,5)	NSV6032-.....-UF
	40	57,2	12	6	5,2	M6	9	G1/8	7,5	15	42	10	4,2	2	6,5	0	10	6,5	45,5 (±0,7)	NSV6040-.....-UF
	50	67	16	8	6,7	M8	10,5	G1/8	7,5	14,6	50	13	4,7	2,5	7,5	0	12	7,5	45,5 (±0,7)	NSV6050-.....-UF
	63	80	16	8	6,7	M8	10,5	G1/8	8	15,5	62	13	5,2	2,5	7,5	0	12	7,5	50 (±0,8)	NSV6063-.....-UF
	80	102,6	20	8	8,5	M10	13,5	G1/8	9	17	82	17	5,2	2,5	8	0	14	8	56 (±0,8)	NSV6080-.....-UF
	100	124	25	8	8,5	M10	13,5	G1/4	10	20	103	22	5,2	3	10	0	14	10	66,5 (±1,0)	NSV6100-.....-UF