

**ISO 21287 - UNITOP COMPACT CYLINDERS SERIES
CILINDRI PNEUMATICI COMPATTI ISO 21287 - UNITOP**

SERIE **NSK**

**PATENTED
BREVETTATO**

NSK series is a completely new range of Vesta 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..

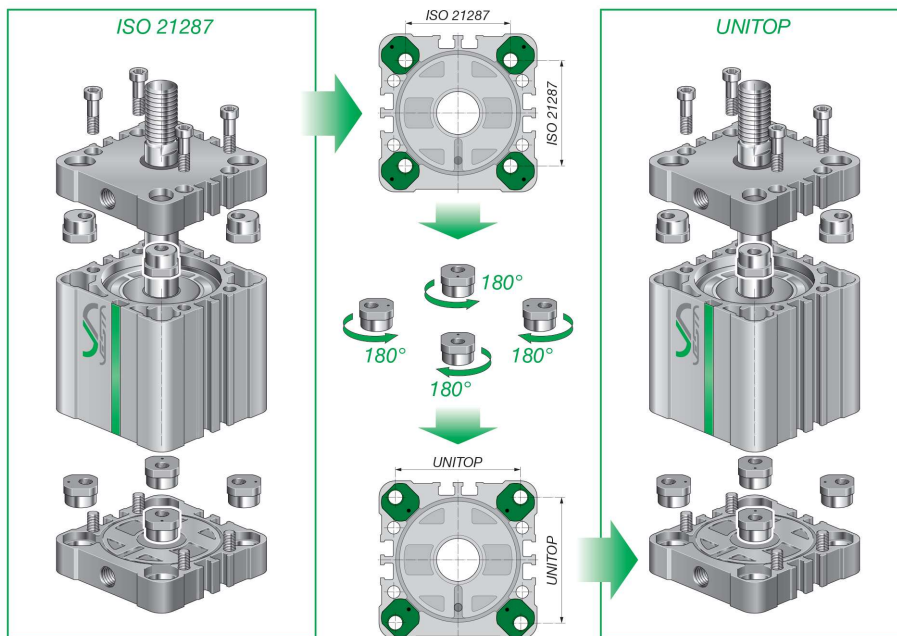
An extremely construction simplicity, new design and advanced technology make the compact series NSK highly competitive, able to meet even the hardest request of performance and reliability and give it a wide duty flexibility.

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.

Nuova gamma di cilindri compatti NSK, che con un unico set di componenti base è studiata per l'assemblaggio finale in versione standard ISO 21287 oppure in standard UNITOP (soluzione protetta da brevetto).

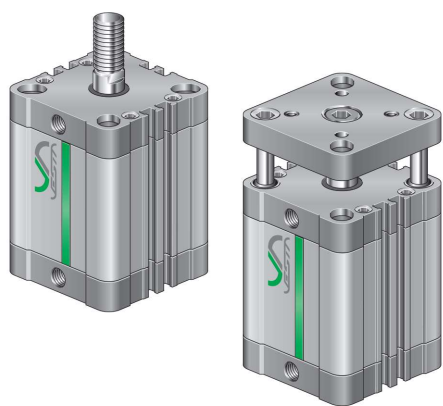
L'estrema semplicità costruttiva, il nuovo design e la innovativa tecnologia di produzione, rendono la serie compatta NSK molto competitiva ed in grado di soddisfare le più esigenti richieste di prestazioni ed affidabilità, unite a grande flessibilità nel servizio.

Di particolare evidenza il vantaggio ottenuto con la drastica riduzione di elementi costruttivi, salvaguardando l'esigenza di offrire due versioni standard di prodotto.



TECHNICAL FEATURES NSK CYLINDERS / CARATTERISTICHE TECNICHE CILINDRI NSK

ATEX versions see / Versioni ATEX vedi .. P. A-109



NSK [] - [] - [] - [] - [] - [] - []

ISO 21287 **I**

UNITOP **U**

- Bore / Alesaggio (mm):
 Ø16 **16**
 Ø20 **20**
 Ø25 **25**
 Ø32 **32**
 Ø40 **40**
 Ø50 **50**
 Ø63 **63**
 Ø80 **80**
 Ø100 ... **100**

Stroke / Corsa (mm):

- Male thread **M**
Filetto maschio
 Female thread **F**
Filetto femmina

- VS** High Temperature (-25 / +120 °C)
Polyurethane rod seal
Guarnizione dello stelo in Poliuretano per alte temperature (-25/+120°C)
VV High Temperature (-25 / +120 °C)
Polyurethane all seals
Tutte le guarnizioni in Poliuretano per alte temperature (-25/+120°C)

- SEA** Single acting front spring
Semplice effetto molla anteriore
SEP Single acting rear spring
Semplice effetto molla posteriore
P Through rod cylinder
Cilindro stelo passante
AR Non rotating
Cilindro antirotazione

Characteristic magnetic switches see **GENERAL CATALOGUE - Pag. A-19; A-33.**
 Caratteristiche finecorsa magnetico vedi **CATALOGO GENERALE - Pag. A-19; A-33.**

Head	Die-cast aluminium alloy.
Piston rod	Ø16 ÷ 25 stainless steel X5CrNi1810, Ø32 ÷ 100 stainless steel X20Cr13.
Barrel	Anodized profiled aluminium tube.
Seals	Polyurethane.
Cushioning	Mechanical buffers.

Testate	Pressofusione in lega di alluminio.
Stelo	Ø16 ÷ 25 acciaio inox X5CrNi1810, Ø32 ÷ 100 acciaio inox X20Cr13.
Camicia	Tubo profilato ed anodizzato d' alluminio.
Guarnizioni	In poliuretano.
Ammortizzatori	Smorzatore meccanici d'urto.

Ambient temperature range	-20 °C ÷ +80 °C.
Temperature range of medium	0 °C ÷ +30 °C.
Lubrication	Not required.
Medium	Filtered air.
Max operating pressure	10 bar.

TECHNICAL FEATURES

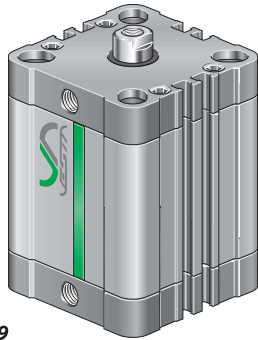
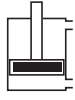
CARATTERISTICHE TECNICHE

Temperatura ambiente	-20 °C ÷ +80 °C.
Temperatura fluido	0 °C ÷ +30 °C.
Lubrificazione	Non necessaria.
Fluido	Aria filtrata
Pressione max d'esercizio	10 bar.

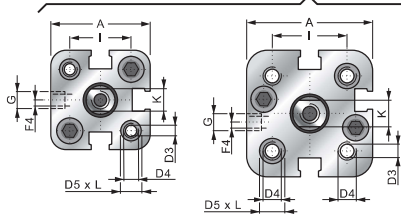


NSK . - ..

DOUBLE ACTING MAGNETIC CYLINDER
CILINDRO A DOPPIO EFFETTO MAGNETICO

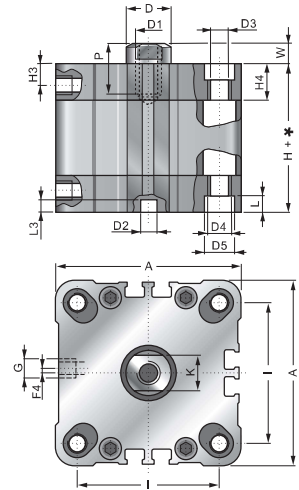


* = Stroke / Corsa



Ø 16 mm

Ø 20; 25 mm



Ø 32; 40; 50; 63; 80; 100 mm

ATEX versions see
Versioni ATEX vedi ... P. A-109

STANDARD ISO 21287

Ø	A	ØD	ØD2	ØD3	ØD4	ØD5	G	H3	H4	I	K	L	L3	W	F4	H	Code / Codice
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)	NSKI 16-...
20	37	10	6	4,2	M5	7,5	M5	7	12,3	22	8	4,2	2,5	6	4	37 (±0,5)	NSKI 20-...
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)	NSKI 25-...
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)	NSKI 32-...
40	57,2	12	6	5,2	M6	9	G1/8	7,5	15	38	10	4,2	2	7	0	45 (±0,7)	NSKI 40-...
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)	NSKI 50-...
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)	NSKI 63-...
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)	NSKI 80-...
100	124*	25	8	8,5	M10	13,5	G1/4*	10	20	89	22	5,2	3	10	0	67 (±1,0)	NSKI 100-...

STANDARD UNITOP

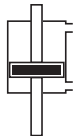
Ø	A	ØD	ØD2	ØD3	ØD4	ØD5	G	H3	H4	I	K	L	L3	W	F4	H	Code / Codice
16	29,2	8	6	3,3	M4	6	M5	7	12,8	18	6	3,5	2,2	4,5	0	38 (±0,5)	NSKU 16-...
20	37	10	6	4,2	M5	7,5	M5	7	12,3	22	8	4,2	2,5	4,5	4	38 (±0,5)	NSKU 20-...
25	41	10	6	4,2	M5	7,5	M5	7,5	13,5	26	8	4,2	2,5	5,5	3	39,5 (±0,5)	NSKU 25-...
32	49,2	12	6	5,2	M6	9	G1/8	7,5	15	32	10	4,5	2	6	0	44,5 (±0,5)	NSKU 32-...
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)	NSKU 40-...
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)	NSKU 50-...
63	80	16	8	6,7	M8	10,5	G1/8	8	15,5	62	13	5,2	2,5	7,5	0	50 (±0,8)	NSKU 63-...
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)	NSKU 80-...
100	124	25	8	8,5	M10	13,5	G1/4	10	20	103	22	5,2	3	10	0	66,5 (±1,0)	NSKU 100-...

Standard stroke / Corsa Standard

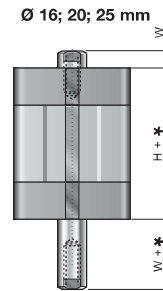
Bore / Alésaggio	5	10	15	20	25	30	35	40	50	60	70	80	90	100	125	160	200	250
16	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
20	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
25	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
32	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
40	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
50	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
63	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
80	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
100	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

NSK . - .. P

DOUBLE ACTING MAGNETIC THROUGH ROD CYLINDER
CILINDRO MAGNETICO A DOPPIO EFFETTO STELO PASSANTE

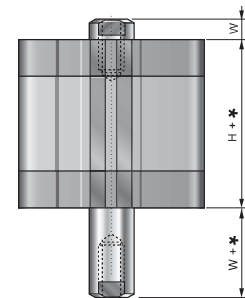


* = Stroke / Corsa



Ø 16; 20; 25 mm

Ø 32; 40; 50; 63; 80; 100 mm



ATEX versions see
Versioni ATEX vedi ... P. A-109

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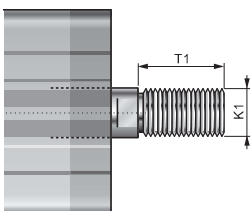
Ø	W	H	Code - Codice
16	4,5	37 (±0,5)	NSKI 16/... P
20	6	37 (±0,5)	NSKI 20/... P
25	6	39 (±0,5)	NSKI 25/... P
32	7	44 (±0,5)	NSKI 32/... P
40	7	45 (±0,7)	NSKI 40/... P
50	8	45 (±0,7)	NSKI 50/... P
63	8	49 (±0,8)	NSKI 63/... P
80	10	54 (±0,8)	NSKI 80/... P
100	10	67 (±1,0)	NSKI 100/... P

STANDARD UNITOP

Ø	W	H	Code - Codice
16	4,5	38 (±0,5)	NSKU 16/... P
20	4,5	38 (±0,5)	NSKU 20/... P
25	5,5	39,5 (±0,5)	NSKU 25/... P
32	6	44,5 (±0,5)	NSKU 32/... P
40	6,5	45,5 (±0,7)	NSKU 40/... P
50	7,5	45,5 (±0,7)	NSKU 50/... P
63	7,5	50 (±0,8)	NSKU 63/... P
80	8	56 (±0,8)	NSKU 80/... P
100	10	66,5 (±1,0)	NSKU 100/... P

NSK . - M

THREADED MALE PISTON ROD VERSION
VERSIONE STELO FILETTATO MASCHIO



STANDARD ISO 21287

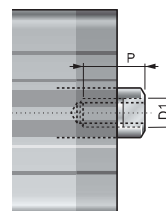
Ø	K1	T1
16	M6x1	12
20	M8x1,25	16
25	M8x1,25	16
32	M10x1,25	19
40	M10x1,25	19
50	M12x1,25	22
63	M12x1,25	22
80	M16x1,5	28
100	M16x1,5	28

STANDARD UNITOP

Ø	K1	T1
16	M8x1,25	20
20	M10x1,25	22
25	M10x1,25	22
32	M10x1,25	22
40	M10x1,25	22
50	M12x1,25	24
63	M12x1,25	24
80	M16x1,5	32
100	M20x1,5	40

NSK . - F

THREADED FEMALE PISTON ROD VERSION
VERSIONE STELO FILETTATO FEMMINA



STANDARD ISO 21287

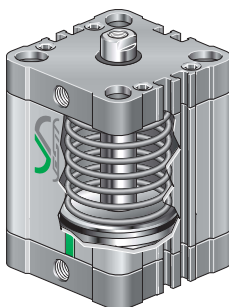
Ø	ØD1	P
16	M4	8
20	M6	10
25	M6	10
32	M8	12
40	M8	12
50	M10	16
63	M10	16
80	M12	20
100	M12	20

STANDARD UNITOP

Ø	ØD1	P
16	M4	8
20	M5	10
25	M5	10
32	M6	12
40	M6	12
50	M8	12
63	M8	14
80	M10	15
100	M12	20

NSK . - .. SEA

SIMPLE ACTING FRONT SPRING
SEMPLICE EFFETTO MOLLA ANTERIORE

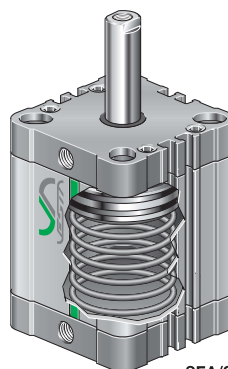


SEA/SEP SPRING FORCE (N) STROKE 0 - 25 mm
SEA/SEP FORZE MOLLA (N) CORSA 0 - 25 mm

Ø	F spring max (stroke 0 mm) F molla max (corsa 0 mm)	F spring min (stroke 25 mm) F molla min (corsa 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	150	115	54 (±0,8)	56 (±0,8)
100	160	125	67 (±1,0)	66,5 (±1,0)

NSK . - .. SEP

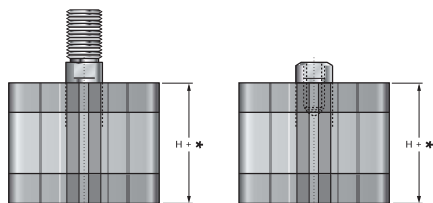
SIMPLE ACTING REAR SPRING
SEMPLICE EFFETTO MOLLA POSTERIORE



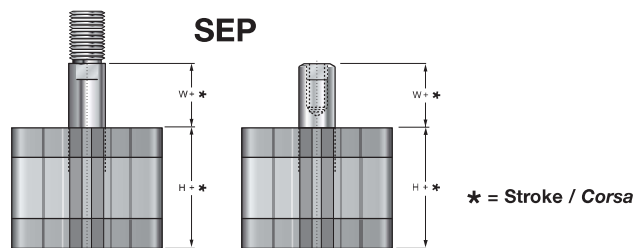
SEA/SEP SPRING FORCE (N) STROKE 26 - 50 mm
SEA/SEP FORZE MOLLA (N) CORSA 26 - 50 mm

Ø	F spring max (stroke 26 mm) F molla max (corsa 26 mm)	F spring min (stroke 50 mm) F molla min (corsa 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	150	115	84 (±0,8)	86 (±0,8)
100	160	125	97 (±1,0)	96,5 (±1,0)

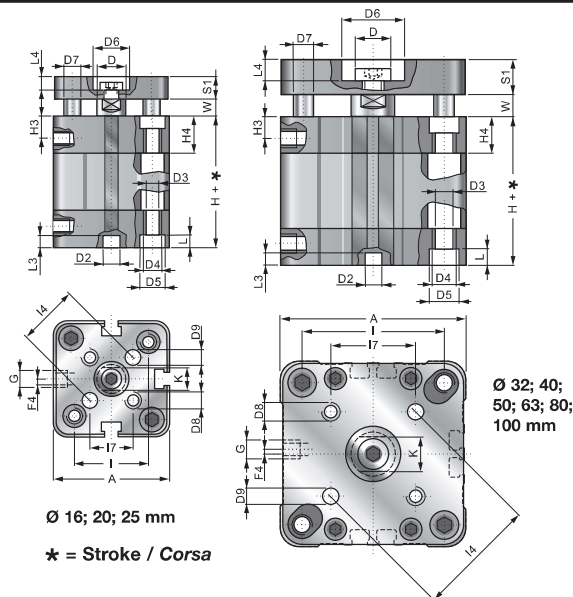
SEA



SEP



* = Stroke / Corsa



Ø 16; 20; 25 mm

* = Stroke / Corsa

STANDARD ISO 21287

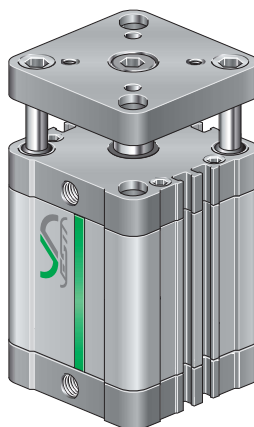
Ø	A	ØD	ØD2	ØD3	ØD4	ØD6	ØD7	ØD8	ØD9	G	H3	H4	I	I4	I7	K	L	L3	L4	F4	S1	W	H	Code / Codice
16	29,2	8	6	3,3	M4	9	5	M3	3	M5	7	12,8	18	14	9,9	6	3,5	2,2	4	0	6	4,5	37 (±0,5)	NSKI 16-... AR
20	37	10	6	4,2	M5	11	5	M4	4	M5	7	12,3	22	17	12	8	4,2	2,5	5	4	8	4,5	37 (±0,5)	NSKI 20-... AR
25	41	10	6	4,2	M5	14	6	M5	5	M5	7,5	13,5	26	22	15,6	8	4,2	2,5	5	3	8	5,5	39,5 (±0,5)	NSKI 25-... AR
32	49,2	12	6	5,2	M6	17	8	M5	5	G1/8	7,5	15	32,5	28	19,8	10	4,5	2	6,5	0	10	6	44 (±0,5)	NSKI 32-... AR
40	57,2	12	6	5,2	M6	17	10	M5	5	G1/8	7,5	15	38	33	23,3	10	4,2	2	6,5	0	10	6,5	45 (±0,7)	NSKI 40-... AR
50	67	16	8	6,7	M8	22	10	M6	6	G1/8	7,5	14,6	46,5	42	29,7	13	4,7	2,5	7,5	0	12	7,5	45 (±0,7)	NSKI 50-... AR
63	80	16	8	6,7	M8	22	10	M6	6	G1/8	8	15,5	56,5	50	35,4	13	5,2	2,5	7,5	0	12	7,5	49 (±0,8)	NSKI 63-... AR
80	102,6*	20	8	8,5	M10	28	14	M8	8	G1/8	9	17	72	65	46	17	5,2	2,5	9	0	14	8	54 (±0,8)	NSKI 80-... AR
100	124*	25	8	8,5	M10	30	14	M10	10	G1/4*	10	20	89	80	56,6	22	5,2	3	10	0	14	10	67 (±1,0)	NSKI 100-... AR

STANDARD UNITOP

Ø	A	ØD	ØD2	ØD3	ØD4	ØD6	ØD7	ØD8	ØD9	G	H3	H4	I	I4	I7	K	L	L3	L4	F4	S1	W	H	Code / Codice
16	29,2	8	6	3,3	M4	9	5	M3	3	M5	7	12,8	18	14	9,9	6	3,5	2,2	4	0	6	4,5	38 (±0,5)	NSKU 16-... AR
20	37	10	6	4,2	M5	11	5	M4	4	M5	7	12,3	22	17	12	8	4,2	2,5	5	4	8	4,5	38 (±0,5)	NSKU 20-... AR
25	41	10	6	4,2	M5	14	6	M5	5	M5	7,5	13,5	26	22	15,6	8	4,2	2,5	5	3	8	5,5	39,5 (±0,5)	NSKU 25-... AR
32	49,2	12	6	5,2	M6	17	8	M5	5	G1/8	7,5	15	32	28	19,8	10	4,5	2	6,5	0	10	6	44,5 (±0,5)	NSKU 32-... AR
40	57,2	12	6	5,2	M6	17	10	M5	5	G1/8	7,5	15	42	33	23,3	10	4,2	2	6,5	0	10	6,5	45,5 (±0,7)	NSKU 40-... AR
50	67	16	8	6,7	M8	22	10	M6	6	G1/8	7,5	14,6	50	42	29,7	13	4,7	2,5	7,5	0	12	7,5	45,5 (±0,7)	NSKU 50-... AR
63	80	16	8	6,7	M8	22	10	M6	6	G1/8	8	15,5	62	50	35,4	13	5,2	2,5	7,5	0	12	7,5	50 (±0,8)	NSKU 63-... AR
80	102,6	20	8	8,5	M10	28	14	M8	8	G1/8	9	17	82	65	46	17	5,2	2,5	9	0	14	8	56 (±0,8)	NSKU 80-... AR
100	124	25	8	8,5	M10	30	14	M10	10	G1/4	10	20	103	80	56,6	22	5,2	3	10	0	14	10	66,5 (±1,0)	NSKU 100-... AR

NSK . - .. AR

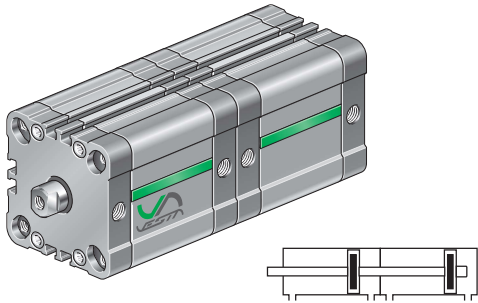
DOUBLE ACTING MAGNETIC CYLINDER NON ROTATING
CILINDRO MAGNETICO A DOPPIO EFFETTO ANTIROTATIVO





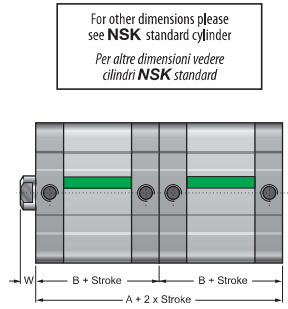
NSK ... TN2 ...

MULTI-THRUST TANDEM
TANDEM MULTISPINTA



ISO 21287 I	Stroke Corsa (mm):	1°	2°
UNITOP U		Stroke Corsa (mm):	Stroke Corsa (mm):
Bore / Alesaggio (mm):		Ø32 ... 32	Ø63 ... 63
		Ø40 ... 40	Ø80 ... 80
		Ø50 ... 50	Ø100 ... 100

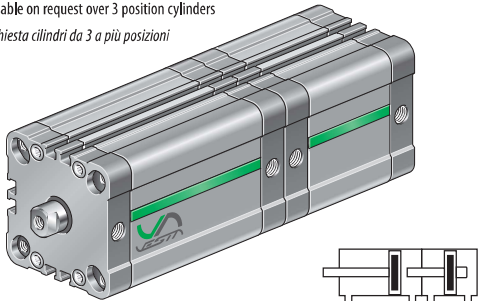
Ø	A	B	ISO 21287	UNITOP
			Code - Codice	Code - Codice
32	88,4	44,2	NSKI 32/... TN...	NSKU 32/... TN...
40	90,4	45,2	NSKI 40/... TN...	NSKU 40/... TN...
50	90,4	45,2	NSKI 50/... TN...	NSKU 50/... TN...
63	99	49,5	NSKI 63/... TN...	NSKU 63/... TN...
80	110	55	NSKI 80/... TN...	NSKU 80/... TN...
100	133,4	66,7	NSKI 100/... TN...	NSKU 100/... TN...



NSK ... BS ...

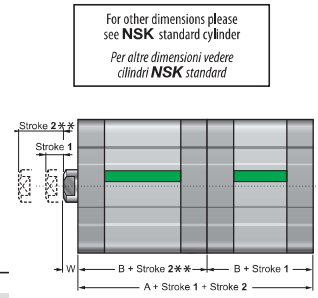
MULTI-POSITION
MULTIPOSIZIONE

Available on request over 3 position cylinders
A richiesta cilindri da 3 a più posizioni



ISO 21287 I	Stroke Corsa (mm):	1°	2°**
UNITOP U		Stroke Corsa (mm):	Stroke Corsa (mm):
Bore / Alesaggio (mm):		Ø32 ... 32	Ø63 ... 63
		Ø40 ... 40	Ø80 ... 80
		Ø50 ... 50	Ø100 ... 100

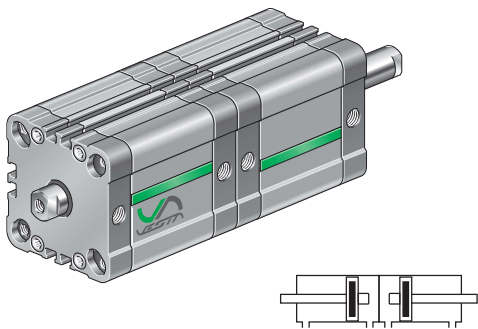
Ø	A	B	ISO 21287	UNITOP
			Code - Codice	Code - Codice
32	88,4	44,2	NSKI 32/... BS...	NSKU 32/... BS...
40	90,4	45,2	NSKI 40/... BS...	NSKU 40/... BS...
50	90,4	45,2	NSKI 50/... BS...	NSKU 50/... BS...
63	99	49,5	NSKI 63/... BS...	NSKU 63/... BS...
80	110	55	NSKI 80/... BS...	NSKU 80/... BS...
100	133,4	66,7	NSKI 100/... BS...	NSKU 100/... BS...



** Attention: Stroke 2 = Addition of the two strokes of the cylinder
** Attenzione: Corsa 2 = Somma delle due corse del cilindro

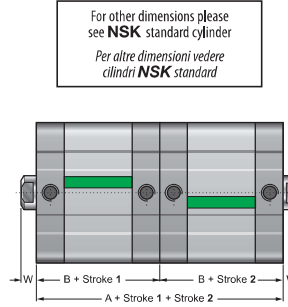
NSK ... CNP ...

REAR OPPOSED
CONTRAPOSTI POSTERIORI



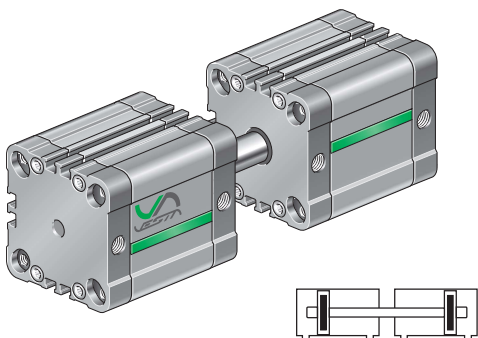
ISO 21287 I	Stroke Corsa (mm):	1°	2°
UNITOP U		Stroke Corsa (mm):	Stroke Corsa (mm):
Bore / Alesaggio (mm):		Ø16 ... 16	Ø32 ... 32
		Ø20 ... 20	Ø40 ... 40
		Ø25 ... 25	Ø50 ... 50
			Ø63 ... 63
			Ø80 ... 80
			Ø100 ... 100

Ø	A	B	ISO 21287	UNITOP
			Code - Codice	Code - Codice
16	76	38	NSKI 16/... CNP...	NSKU 16/... CNP...
20	76	38	NSKI 20/... CNP...	NSKU 20/... CNP...
25	79	39,5	NSKI 25/... CNP...	NSKU 25/... CNP...
32	88,4	44,2	NSKI 32/... CNP...	NSKU 32/... CNP...
40	90,4	45,2	NSKI 40/... CNP...	NSKU 40/... CNP...
50	90,4	45,2	NSKI 50/... CNP...	NSKU 50/... CNP...
63	99	49,5	NSKI 63/... CNP...	NSKU 63/... CNP...
80	110	55	NSKI 80/... CNP...	NSKU 80/... CNP...
100	133,4	66,7	NSKI 100/... CNP...	NSKU 100/... CNP...



NSK ... CNF ...

FRONT OPPOSED
CONTRAPOSTI ANTERIORI



ISO 21287 I	Stroke Corsa (mm):	1°	2°
UNITOP U		Stroke Corsa (mm):	Stroke Corsa (mm):
Bore / Alesaggio (mm):		Ø16 ... 16	Ø32 ... 32
		Ø20 ... 20	Ø40 ... 40
		Ø25 ... 25	Ø50 ... 50
			Ø63 ... 63
			Ø80 ... 80
			Ø100 ... 100

Ø	E	A	V	ISO 21287	UNITOP
				Code - Codice	Code - Codice
16	85	38	9	NSKI 16/... CNF...	NSKU 16/... CNF...
20	85	38	9	NSKI 20/... CNF...	NSKU 20/... CNF...
25	90	39,5	11	NSKI 25/... CNF...	NSKU 25/... CNF...
32	100,4	44,2	12	NSKI 32/... CNF...	NSKU 32/... CNF...
40	103,4	45,2	13	NSKI 40/... CNF...	NSKU 40/... CNF...
50	105,5	45,2	15	NSKI 50/... CNF...	NSKU 50/... CNF...
63	114	49,5	15	NSKI 63/... CNF...	NSKU 63/... CNF...
80	126	55	16	NSKI 80/... CNF...	NSKU 80/... CNF...
100	153,4	66,7	20	NSKI 100/... CNF...	NSKU 100/... CNF...

