

Allows simultaneous clamping of several workpieces of different sizes or shapes in the same vice.

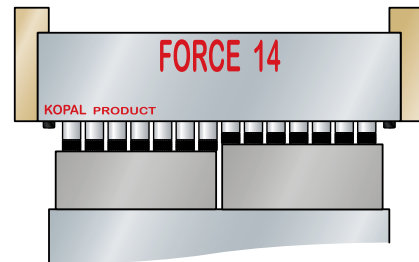
FORCE can be adapted in seconds to any type of vice (from 100 to 200 mm) and is the ideal accessory for all types of mechanical, pneumatic or hydraulic vices.



*Adapts to all vice types
Multiple clamping
Curved or cast workpieces
Cylindrical workpieces*

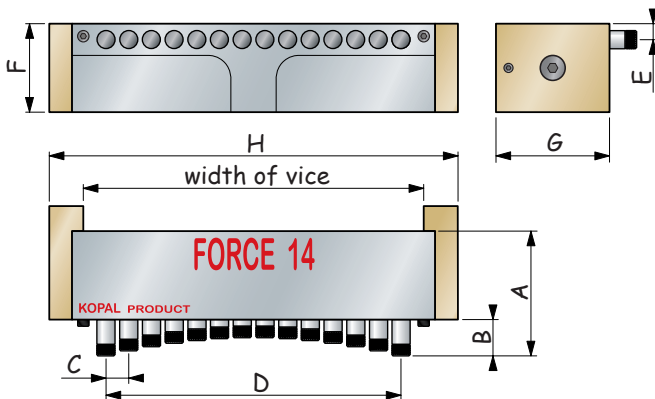
Force	Vice width	Number of pistons	Dimensions (mm)								Ref.
			A	B	C	D	E	F	G	H	
F 12 with tips	100 to 135	12 x Ø 8	41 - 49	3 - 11	10	110	7	39	49	156	27-313
F 12			46 - 54	8 - 16							27-312
F 14 with tips	125 to 160	14 x Ø 8	41 - 49	3 - 11	10	130	7	39	49	181	27-315
F 14			46 - 54	8 - 16							27-314
F 18 with tips	175 to 200	12 x Ø 12	52 - 62	3 - 13	16	176	10	49.5	61.5	230	27-319
F 18			57 - 67	8 - 18							27-318

i The long stroke and multiple points of contact of the pistons ensure powerful and effective clamping.



Piston stroke

Force 12 : 8 mm
Force 14 : 8 mm
Force 18 : 10 mm

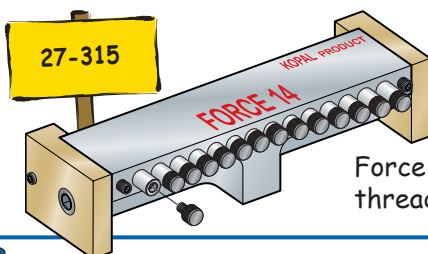


Principle

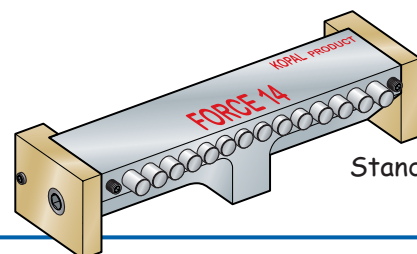
The clamping pistons are linked together via a closed hydraulic circuit. The degree to which each piston is retracted doesn't matter - the clamping force exerted by each of the pistons is identical.

Maximum recommended vice force in Newtons

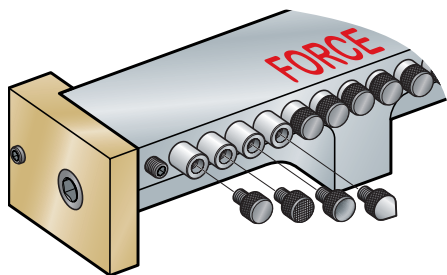
No. of pistons used	Force 12			Force 14			Force 18		
	12	10	8	14	12	10	12	10	8
Maximum force	42000	35000	28000	49000	42000	35000	92000	77000	61000



Force with M4 threaded pistons



Standard Force



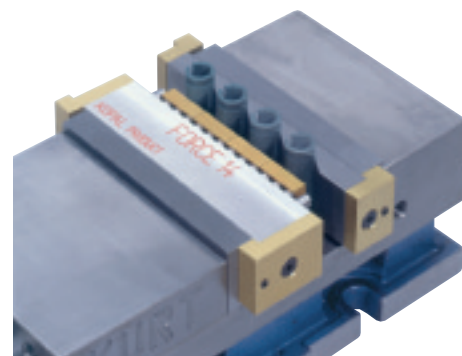
*for Force with
tapped pistons*

Interchangeable tips

The tapped pistons allow you to fit the appropriate tips for different workpiece shapes.

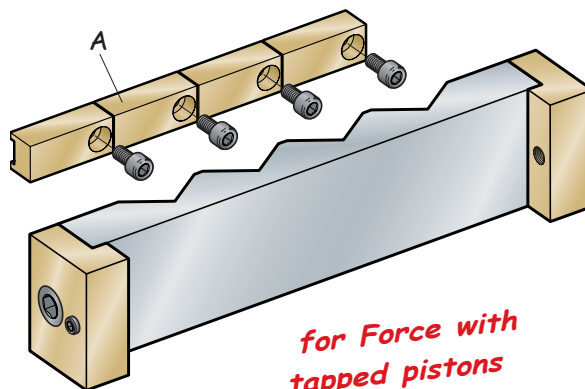
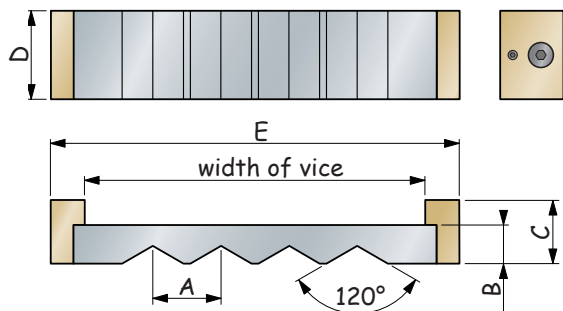
- Flat tips for finished workpieces
- Grooved tips for raw workpieces
- Ball-ended tips for curved workpieces
- Pointed tips

Set of tips for :	Force 12 Ø 8 x 12 tips Ref.	Force 14 Ø 8 x 14 tips Ref.	Force 18 Ø 12 x 12 tips Ref.
Flat tips	27-411	27-421	27-431
Grooved tips	27-414	27-424	27-434
Ball-ended tips	27-412	27-422	27-432
Pointed tips	27-413	27-423	27-433



Fixed jaws with V-guides

For vertical clamping of cylindrical workpieces. Fixed jaws with mounting flanges and blocks (A) linking the pistons.



*for Force with
tapped pistons*

Fixed jaws for vices of	width	Number of Vs	A	B	C	D	E	Ref.
for Force 12	100 to 135	12	10					27-351
		6	20	17	30	40	156	27-352
		4	30					27-353
for Force 14	125 to 160	14	10					27-361
		7	20	17	30	40	181	27-362
		4	30					27-363
for Force 18	175 to 200	12	16					27-371
		6	32	20	30	50	230	27-372
		4	48					27-373

