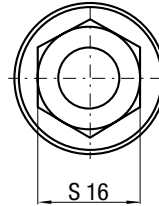
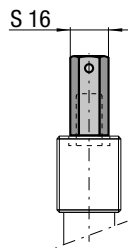


cod. 39 TBT  
(optional)



**!**  
Senza riserva corsa  
Without reserve of stroke  
Ohne Hubreserve  
Sans course de réserve  
Sin margen de Carrera  
Sem reserva de curso

**!**  
NON superare 90% Cu  
DO NOT exceed 90% Cu  
NICHT überschreiten die 90% Cu  
NE PAS dépasser 90% Cu  
NO superar el 90% Cu  
NÃO se excedam os 90% Cu

Il nuovo codice sarà fornito solo ad esaurimento del vecchio - The new code will be supplied only when the old will be out of stock - Der neue Kode wird nur angegeben, wenn der alte nicht mehr lieferbar ist - Le nouveau code sera fourni uniquement lorsque le vieux stock sera écoulé - El nuevo código será suministrado sólo cuando se agoten las existencias del antiguo - O novo código irá ser fornecido apenas quando o antigo esgotar stock

\* F<sub>1i</sub> =

Isothermal end force at 100% Cu



p. 16

\*\* F<sub>1p</sub> =

Polytrophic end force at 100% Cu



Collegabile con tubi - Linkable with hoses  
Anschlussfähig mit Leitungen  
Connectable avec tubes - Connectable con mangueras  
Acompláveis com tubos

Micro 32°

Force color code	P		F <sub>0</sub> Initial force ± 5% at +20°C +68°F	
	bar	psi	daN	lb
OR	10	145	5	11
PR	20	290	10	22
GR	60	870	30	67
BU	100	1450	50	112
RD	140	2030	70	157
YW	180	2610	90	202
BK	10-180	145-2610	5-90	11-202

**ACTIVE SAFETY**



OSAS



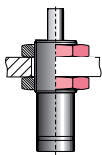
USAS



OPAS

N <sub>2</sub>	0 - 80 °C 32 - 176 °F	<b>ΔP</b> ± 0,33 %/°C	<b>P max</b> 180 bar 2610 psi	<b>P min</b> 10 bar 145 psi	<b>S</b> 0,50 cm <sup>2</sup> 0.078 in <sup>2</sup>	<b>SPM</b> ~ 100 - 150 (at 20°C)	<b>Max Speed</b> 1,8 m/s 70.8 in/s	<b>Maintenance kit</b> Disposable
----------------	--------------------------	--------------------------	-------------------------------------	-----------------------------------	---	--	--	--------------------------------------

CODE PHASING OUT from 05/2019	NEW	Cu		L		L min		F <sub>1i</sub> * End force *		F <sub>1p</sub> ** End force **		V <sub>0</sub>		PED 2014/68/EU		
		mm	inch	mm	inch	mm	inch	daN	lb	daN	lb	cm <sup>3</sup>	in <sup>3</sup>	-Kg	-lb	
M90-007-A-...-TBM	M90-007-B-...-TBM	7	0.28	56	2.20	49	1.93	1,21 x F <sub>0</sub>		1,39 x F <sub>0</sub>		2,3	0.14	0,07	0.15	✓
M90-010-A-...-TBM	M90-010-B-...-TBM	10	0.39	62	2.44	52	2.05	1,25 x F <sub>0</sub>		1,44 x F <sub>0</sub>		2,9	0.18	0,07	0.15	✓
M90-013-A-...-TBM	M90-013-B-...-TBM	12,7	0.50	67,4	2.65	54,7	2.15	1,27 x F <sub>0</sub>		1,48 x F <sub>0</sub>		3,4	0.21	0,08	0.18	✓
M90-015-A-...-TBM	M90-015-B-...-TBM	15	0.59	72	2.83	57	2.24	1,28 x F <sub>0</sub>		1,50 x F <sub>0</sub>		3,9	0.24	0,08	0.18	✓
M90-025-A-...-TBM	M90-025-B-...-TBM	25	0.98	92	3.62	67	2.64	1,32 x F <sub>0</sub>		1,57 x F <sub>0</sub>		5,8	0.35	0,09	0.20	✓
M90-038-A-...-TBM	M90-038-B-...-TBM	38,1	1.50	118,2	4.65	80,1	3.15	1,35 x F <sub>0</sub>		1,60 x F <sub>0</sub>		8,4	0.51	0,11	0.24	✓
M90-050-A-...-TBM	M90-050-B-...-TBM	50	1.97	142	5.59	92	3.62	1,36 x F <sub>0</sub>		1,62 x F <sub>0</sub>		10,8	0.66	0,12	0.26	✓
M90-063-A-...-TBM	M90-063-B-...-TBM	63,5	2.50	172	6.77	108,5	4.27	1,36 x F <sub>0</sub>		1,62 x F <sub>0</sub>		13,7	0.84	0,14	0.31	✓
M90-080-A-...-TBM	M90-080-B-...-TBM	80	3.15	205	8.07	125	4.92	1,37 x F <sub>0</sub>		1,64 x F <sub>0</sub>		17	1.04	0,15	0.33	✓
M90-100-A-...-TBM	M90-100-B-...-TBM	100	3.94	245	9.65	145	5.71	1,37 x F <sub>0</sub>		1,65 x F <sub>0</sub>		20,9	1.28	0,17	0.37	✓
M90-125-A-...-TBM	M90-125-B-...-TBM	125	4.92	295	11.61	170	6.69	1,38 x F <sub>0</sub>		1,66 x F <sub>0</sub>		25,8	1.57	0,20	0.44	✓



DM 24

**HOW TO ORDER**

p. 39

**INSTALLATION GUIDELINE**

p. 205