

VACUUM FITTINGS AND HOSES



ROTATING QUICK COUPLING FITTINGS
FITTINGS, NYLON SEALS AND HOSES
COMPRESSED AIR AND VACUUM FLEXIBLE HOSES AND RELATIVE FITTINGS
TPR FLEXIBLE HOSE FITTINGS
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3D drawings are available on viototecnica.net



3D drawings are available on vuotecnica.net

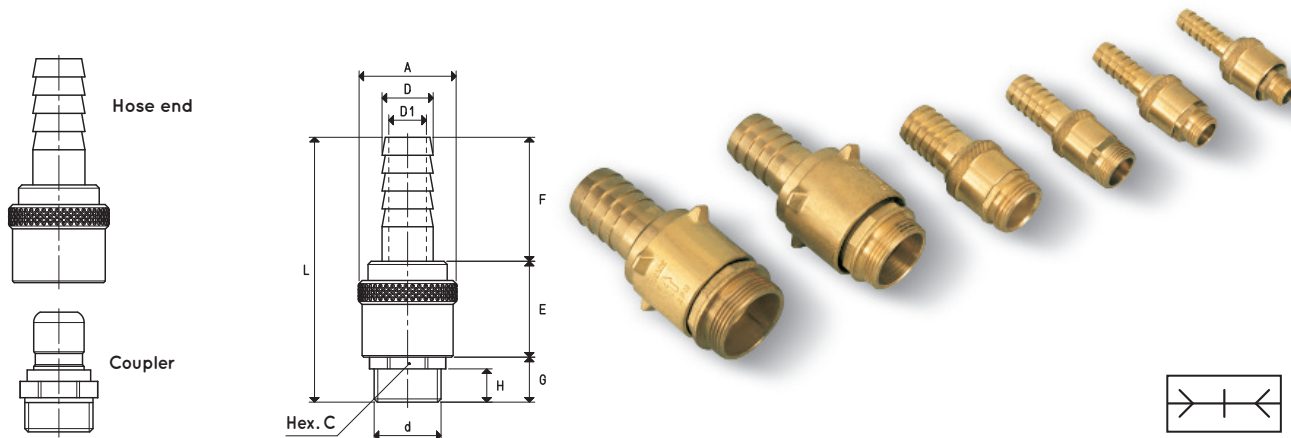


ROTATING QUICK COUPLING FITTINGS

Quick coupling fittings, composed of a jack with hose end connector with male threading, guarantee quick and reliable connection.

It is secured by a ball ring with a thrust spring, while a nitrile rubber seal guarantees a perfect vacuum seal. Their design allows free rotation at low speed and quick coupling or uncoupling by means of the knurled nut. As they are not self-retaining, they ensure a full suction passage, optimising the flow rate of the vacuum pumps.

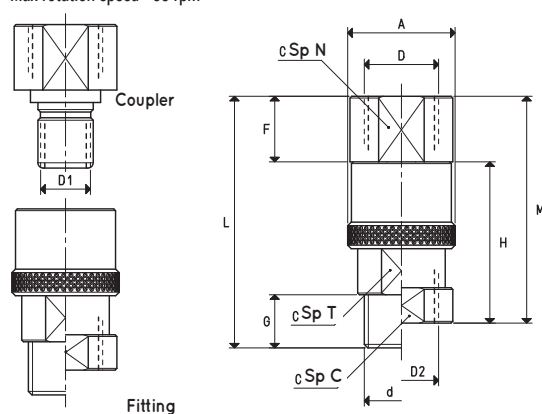
Made entirely of brass, they are available in different sizes to suit various applications.



Item	d	A	C	D	D1	E	F	G	H	L	Material	Hose end item	Hose end weight g	Coupling item	Coupling weight g
	∅		∅	∅	∅										
RR 3/8"	G3/8"	30	21	13	9	29.5	38.5	14	10.5	83.0	brass	00 RR 3/8 02	100	00 RR 3/8 01	38
RR 1/2"	G1/2"	30	21	16	12	30.5	38.5	14	10.5	83.0	brass	00 RR 1/2 02	104	00 RR 1/2 01	34
RR 3/4"	G3/4"	30	26	21	16	29.0	38.5	15	10.5	82.5	brass	00 RR 3/4 02	118	00 RR 3/4 01	50
RR 1"	G1"	38	34	27	22	30.0	39.0	17	12.0	87.0	brass	00 RR 1 02	166	00 RR 1 01	92
RR 1" 1/4	G1" 1/4	68	42	35	26	49.5	49.5	24	13.5	123.0	brass	00 RR 1 1/4 02	568	00 RR 1 1/4 01	210
RR 1" 1/2	G1" 1/2	68	48	40	33	49.0	54.0	25	17.0	128.0	brass	00 RR 1 1/2 02	710	00 RR 1 1/2 01	250

Note: The fittings listed in this table are compatible with the TPR series vacuum hoses, shown on page 6.04.

Max rotation speed - 38 rpm



Item	A	C	D	d	D1	D2	F	G	H	L	M	N	T	Material	Fitting item	Fitting weight g	Coupling item	Coupling weight g
	∅		∅	∅	∅	∅												
RRF 3/8"	25.5	--	G3/8"	G3/8"	11	--	19.0	15	--	71.0	--	22	22	brass	00 RRF 3/8 02	77	00 RRF 3/8 01	58
RRF 1/2"	28.5	--	G1/2"	G1/2"	14	--	18.0	15	--	70.0	--	26	24	brass	00 RRF 1/2 02	79	00 RRF 1/2 01	72
RRF 3/4"	33.5	--	G3/4"	G3/4"	18	--	19.0	15	--	71.0	--	30	28	brass	00 RRF 3/4 02	149	00 RRF 3/4 01	132
RRF 1"	42.0	--	G1"	G1"	23	--	22.5	15	--	73.5	--	38	32	brass	00 RRF 1 02	369	00 RRF 1 01	355
RRF 1" 1/2	65.0	--	G1" 1/2	G1" 1/2	38	--	25.0	24	--	115.0	--	60	55	brass	00 RRF 1 1/2 02	873	00 RRF 1 1/2 01	642
RRFF 3/8"	25.5	22	G3/8"	--	11	G3/8"	20.0	--	42	--	62.0	22	--	brass	00 RRFF 3/8 02	82	00 RRF 3/8 01	58
RRFF 1/2"	28.5	24	G1/2"	--	14	G1/2"	18.0	--	42	--	60.0	26	--	brass	00 RRFF 1/2 02	80	00 RRF 1/2 01	72
RRFF 3/4"	33.5	30	G3/4"	--	18	G3/4"	20.0	--	42	--	62.0	30	--	brass	00 RRFF 3/4 02	199	00 RRF 3/4 01	132
RRFF 1"	42.0	38	G1"	--	23	G1"	22.5	--	56	--	78.5	38	--	brass	00 RRFF 1 02	409	00 RRF 1 01	355
RRFF 1" 1/2	65.0	--	G1" 1/2	--	38	G1" 1/2	25.0	--	93	--	121.0	60	--	brass	00 RRFF 1 1/2 02	938	00 RRF 1 1/2 01	642

Note: Add the letter V to the item for fittings supplied with a FKM seal (Example: RRF 1"V).

Max rotation speed - 38 rpm

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch = $\frac{\text{mm}}{25.4}$; pounds = $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

Adapters for GAS - NPT threading available on page 1.134



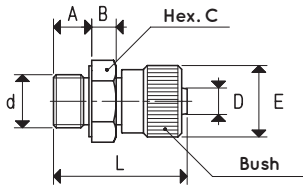
FITTINGS, NYLON SEALS AND HOSES

The fittings described on this page are particularly suitable for connecting vacuum cup holders to their manifolds and in all those cases that require a connection to vacuum sources via smooth flexible hoses with internal diameters of 4, 6 and 9 mm, which is the maximum allowed for a vacuum hose with no internal reinforcement.

These are semi-rapid fittings. The hose is fixed by manually screwing the reeded bush with no need for keys.

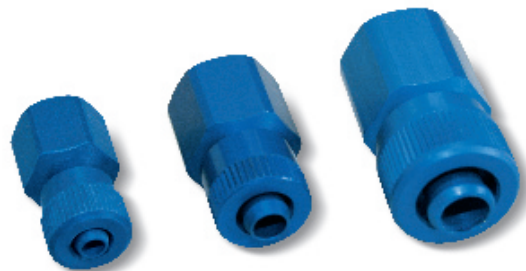
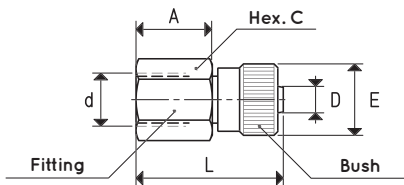
The threaded connections are male or female, according to the requirements. The range is completed by L and T-type fittings and caps with O-rings.

The fittings are supplied complete with nylon seals.



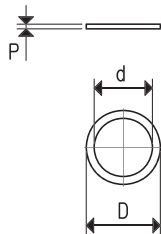
MALE FITTING

Item	d Ø	A	B	C	D Ø int. hose	E Ø	L	Fitting material	Bush material	Weight g
RM M5	M5	5.0	3.5	10	4	10	19.5	tropicalised iron	anodised aluminium	6
RM 1/8"	G1/8"	7.0	4.5	14	4	13	24.5	anodised aluminium	anodised aluminium	6
RM 1/4"	G1/4"	8.5	5.0	17	6	15	27.0	anodised aluminium	anodised aluminium	10
RM 3/8"	G3/8"	10.5	5.0	19	9	20	32.5	anodised aluminium	anodised aluminium	18



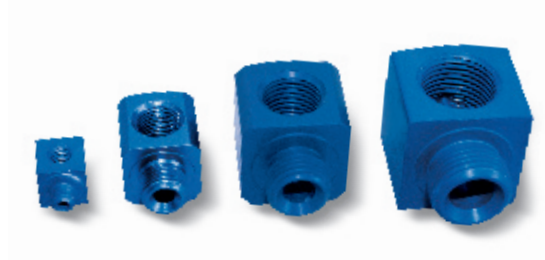
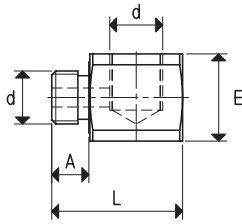
FEMALE FITTING

Item	d Ø	A	C	D Ø int. hose	E Ø	L	Fitting material	Bush material	Weight g
RF 1/8"	G1/8"	14	14	4	13	27.0	anodised aluminium	anodised aluminium	8
RF 1/4"	G1/4"	16	17	6	15	30.0	anodised aluminium	anodised aluminium	12
RF 3/8"	G3/8"	20	19	9	20	32.5	anodised aluminium	anodised aluminium	16



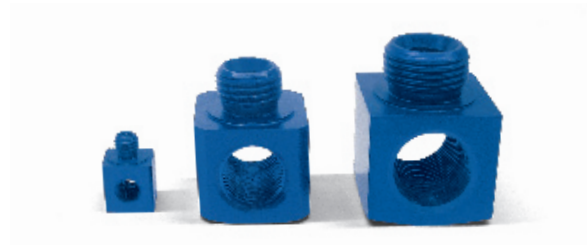
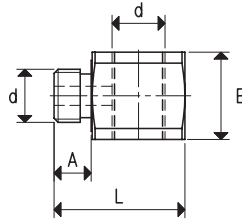
SEALS GN

Item	d Ø	D Ø	P	Material	Weight g
GN M5	M5	8.5	1.0	nylon	0.1
GN 1/8"	G1/8"	14.0	1.0	nylon	0.1
GN 1/4"	G1/4"	17.5	1.5	nylon	0.2
GN 3/8"	G3/8"	22.0	1.5	nylon	0.3
GN 1/2"	G1/2"	27.0	1.5	nylon	0.4



L-FITTING

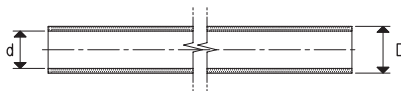
Item	d Ø	A	E	L	Fitting material	Weight g
RL M5	M5	4.5	10	15.0	anodised aluminium	2
RL 1/8"	G1/8"	7.0	16	24.0	anodised aluminium	10
RL 1/4"	G1/4"	9.0	22	30.0	anodised aluminium	22
RL 3/8"	G3/8"	11.0	25	32.5	anodised aluminium	30



T-FITTING

Item	d Ø	A	E	L	Fitting material	Weight g
RT M5	M5	4.5	10	15.0	anodised aluminium	1
RT 1/8"	G1/8"	7.0	16	24.0	anodised aluminium	9
RT 1/4"	G1/4"	9.0	22	30.0	anodised aluminium	21
RT 3/8"	G3/8"	11.0	25	32.5	anodised aluminium	29

TPL flexible hoses are made with Polyamide 11 of vegetable derivation and are suited for compressed air and vacuum for internal diameters up to 9 mm, as well as for compressed air only. They feature a good flexibility and are lightweight, very low water absorption and excellent mechanical performance. They also feature an excellent resistance to low and high temperatures, chemical agents, pneumatic pressure and ageing. The TPL hoses are connected by the fittings described above.



TPL HOSE

Item	d ±0,5 mm Ø int.	D ±0,5 mm Ø ext.	Bending radius	Operating temperature	Weight per meter g/m	Package m	Material	Standard colour
TPL 2	2.5	4	20	-40° / +70°	8.0	100	polyamide 11	light blue
TPL 4	4.0	6	30	-40° / +70°	19.5	100	polyamide 11	light blue
TPL 6	6.0	8	40	-40° / +70°	20.5	100	polyamide 11	light blue
TPL 8	8.0	10	60	-40° / +70°	24.0	100	polyamide 11	light blue
TPL 9	9.0	12	70	-40° / +70°	28.0	50	polyamide 11	light blue

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch = $\frac{\text{mm}}{25.4}$; pounds = $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

Adapters for GAS - NPT threading available on page 1.134



COMPRESSED AIR AND VACUUM FLEXIBLE HOSES AND RELATIVE FITTINGS

3D drawings are available on vuototecnica.net

Our TPR flexible hoses have been specially designed for vacuum and are composed of a single piece with plastic insulation and self-extinguishing materials, including the hose reinforcement core. Their excellent flexibility ensures minimal bending radius and are very light in relation to their great resistance to crushing.

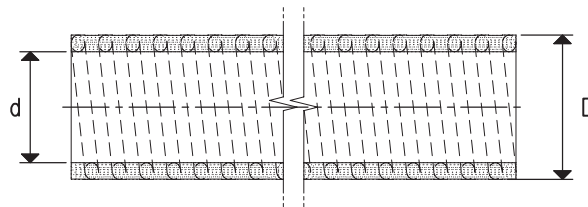
Their smooth inside allows reducing harmful load losses to the minimum.

The excellent functionality of these flexible hoses is associated with a high resistance to abrasion, to weather agents and most chemical products.

We have created a completely new line of RMTPR fittings for TPR hoses. RTPR fittings from 3/8" to 1" are made of self-extinguishing PVC. RMTPR in anodised aluminium.

The fittings are all extremely sturdy and offer a provide vacuum seal. The use of these fittings eliminates unsightly hose clamps and make the connection much faster and safer. They are available in various sizes, depending on the diameter of the hose to be connected.

Our hoses can be managed in mobile laying/cable chains as long as the specifications regarding the hose bending radius indicated on the table are met.



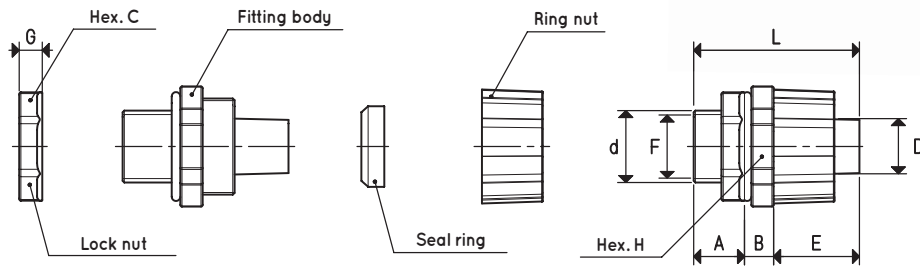
TPR HOSE

Item	d ±0,5 mm Ø int.	D ±0,5 mm Ø ext.	Bending radius	Operating temperature	Weight per meter g/m	Package m	Material	Standard colour
TPR 3/8"	12.3	17.5	60	-10°/+50°	160	30	pvc	grey
TPR 1/2"	16.0	21.2	80	-10°/+50°	195	30	pvc	grey
TPR 3/4"	21.0	26.2	105	-10°/+50°	260	30	pvc	grey
TPR 1"	27.0	33.2	135	-10°/+50°	375	30	pvc	grey
TPR 1" 1/4	35.0	42.4	175	-10°/+50°	550	30	pvc	grey
TPR 1" 1/2	40.0	48.0	200	-10°/+50°	710	30	pvc	grey
TPR 2"	52.0	56.2	260	-10°/+50°	910	30	pvc	grey
TPR 3"	80.0	90.0	400	-10°/+40°	1750	10	pvc	grey

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch = $\frac{\text{mm}}{25.4}$; pounds = $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

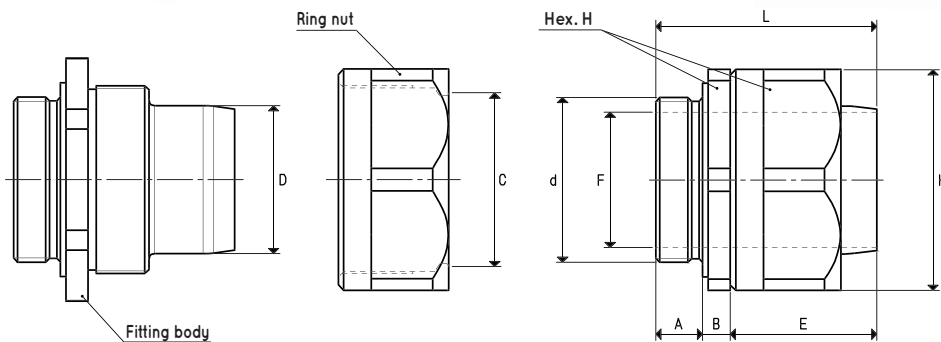
TPR FLEXIBLE HOSE FITTINGS



RTPR FITTINGS

Item	d Ø	A	B	C	D Ø	E	F Ø	G	H	L	Material	For TPR hose	Weight g
RTPR 3/8"	G3/8"	14.5	8.5	26	12.0	23.5	10.5	6	28	46.5	pvc	TPR 3/8"	12
RTPR 1/2"	G1/2"	14.5	9.0	28	15.5	26.5	13.5	7	33	50.0	pvc	TPR 1/2"	18
RTPR 3/4"	G3/4"	14.0	10.5	35	20.8	26.5	18.5	9	38	51.0	pvc	TPR 3/4"	26
RTPR 1"	G1"	16.0	9.0	41	26.5	32.5	24.5	10	44	57.5	pvc	TPR 1"	36

Operating temperature: -10° / +60 °C



RMTPR FITTINGS

Item	d Ø	A	B	C Ø	D Ø	E	F Ø	H	L	Material	For TPR hose	Weight g
RMTPR 1" 1/4	G1" 1/4	13	8	42.7	36.5	33	33	54	54	anodised aluminium	TPR 1" 1/4	360
RMTPR 1" 1/2	G1" 1/2	15	9	48.7	41.8	40	38	62	64	anodised aluminium	TPR 1" 1/2	390
RMTPR 2"	G2"	17	10	60.8	53.5	48	49	80	75	anodised aluminium	TPR 2"	440
RMTPR 3"	G3"	30	14	90.3	80.3	76	73	110	120	anodised aluminium	TPR 3"	1258

Operating temperature: -20° / +60 °C

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch = $\frac{\text{mm}}{25.4}$; pounds = $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

Adapters for GAS - NPT threading available on page 1.134

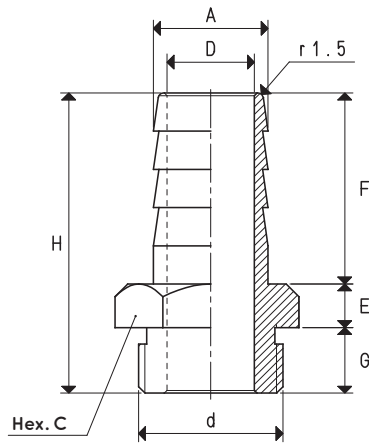


HOSE ENDS

Our hose ends are traditional barbed nickel-plated and brass fittings. They are suited for connecting smooth or reinforced flexible hoses with an internal diameter up to 76 mm.



3D drawings are available on vuototecnica.net



Item	d Ø	A Ø	C	D Ø	E	F	G	H
RS 1/4"	G1/4"	9.0	17	5.0	5	18	12	35
RS 3/8"	G3/8"	13.0	19	9.0	5	20	8	33
RS 1/2"	G1/2"	16.0	23	12.0	5	25	10	40
RS 3/4"	G3/4"	21.0	28	16.0	8	35	12	55
RS 1"	G1"	27.0	36	22.0	8	35	12	55
RS 1" 1/4	G1" 1/4	35.0	45	28.0	10	42	15	67
RS 1" 1/2	G1" 1/2	40.0	50	33.0	10	45	15	70
RS 2"	G2"	51.5	70	43.5	8	48	19	75
RS 3"	G3"	76.5	100	66.5	10	60	30	100

Note: The hose end connectors listed in this table are compatible with the TPR series vacuum hoses, shown on page 6.04.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch = $\frac{\text{mm}}{25.4}$; pounds = $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

Adapters for GAS - NPT threading available on page 1.134

ADAPTERS AND CAPS

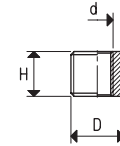
These standard accessories offer the user different assembly options.

The galvanised steel or brass adapters screwed onto the standard vacuum cup support connections can vary the threads from gas to metric or vice-versa, from male to female or vice-versa, in addition of course to increasing or decreasing the size of their threaded diameter.



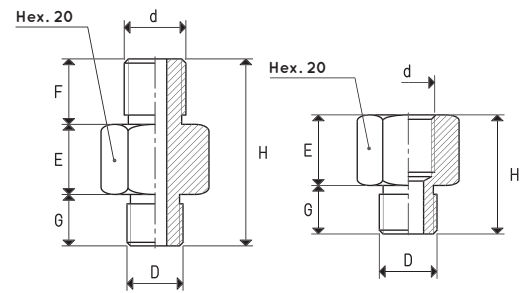
MF ADAPTER

Item	D ∅	d ∅	H	Support material	Weight g
00 08 130	G1/4"	M10	14	steel	4.0
00 08 131	G3/8"	M10	14	steel	12.0
00 08 230	G3/8"	G1/4"	14	steel	6.0
00 08 254	1/4" NPT	M10	14	steel	3.9
00 08 255	3/8" NPT	M10	14	steel	11.9
00 08 258	3/8" NPT	G1/4"	14	steel	5.9



MM AND MF ADAPTER

Item	D ∅	d ∅	E	F	G	H	Adapter material	Weight g
00 08 129	M12	G1/4"	15	14	11	40	brass	58.0
00 08 296	M12	G3/8"	18	--	10	28	brass	34.0
00 08 297	G1/4"	M12	16	--	11	27	brass	40.0

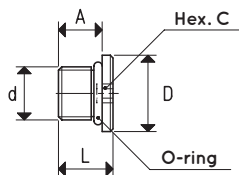
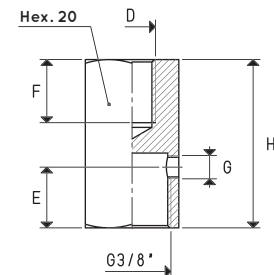


Item 00 08 129

 Item 00 08 296
Item 00 08 297

FF ADAPTER FOR JOINT COUPLINGS GS

Item	D ∅	E	F	G ∅	H	Adapter material	Weight g
00 08 54	M10	13	13.5	M5	36	brass	72
00 08 251	M8	16	15.0	G1/8"	48	brass	102
00 08 252	M12	16	15.0	G1/8"	48	brass	90



CAP WITH O-RING

Item	d ∅	A	C	D ∅	L	Fitting material	Weight g
00 15 291	M5	4	2.5	8	6.5	nickel-plated brass	1
00 11 44	G1/8"	7	3.0	15	9.5	nickel-plated brass	6
00 11 06	G1/4"	8	6.0	18	11.0	nickel-plated brass	10
00 18 33	G3/8"	9	8.0	21	12.5	nickel-plated brass	18
00 15 273	G1/2"	11	10.0	26	14.5	nickel-plated brass	21



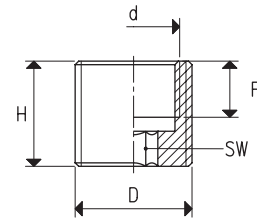
VACUUM CUP ADAPTERS

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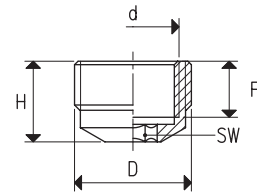
MF ADAPTER

Item	D Ø	d Ø	F	H	SW	Weight g
00 08 215	G3/8"	G1/4"	8	14	6	11.5



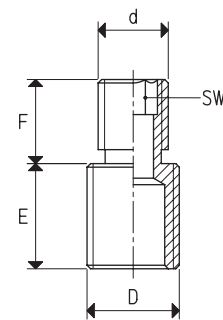
MF ADAPTER

Item	D Ø	d Ø	F	H	SW	Weight g
00 08 216	G3/8"	G1/4"	8	11.5	6	6.0



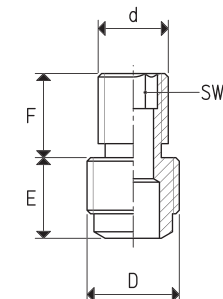
MM ADAPTER

Item	D Ø	d Ø	E	F	SW	Weight g
00 08 217	G1/4"	G1/4"	15	10	6	16.7
00 08 218	G1/4"	M10 x 1.5	15	12	6	10.2
00 08 219	G1/4"	M14 x 1.5	15	12	6	16.0
00 08 220	G3/8"	G1/4"	14	10	6	18.4
00 08 221	G3/8"	M10 x 1.5	14	12	6	16.3
00 08 222	G3/8"	M14 x 1.5	14	12	6	22.5



MM ADAPTER

Item	D Ø	d Ø	E	F	SW	Weight g
00 08 223	G1/4"	G1/4"	11.5	10	6	13.9
00 08 224	G1/4"	M10 x 1.5	13.0	12	6	10.1
00 08 225	G1/4"	M14 x 1.5	13.0	12	6	15.8
00 08 226	G3/8"	G1/4"	10.5	11	6	16.6
00 08 227	G3/8"	M10 x 1.5	10.5	13	6	14.2
00 08 228	G3/8"	M14 x 1.5	10.5	13	6	20.2



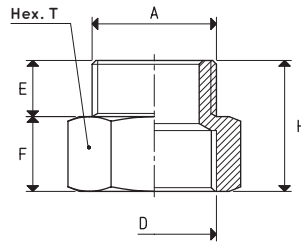
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

$$\text{inch} = \frac{\text{mm}}{25.4}; \text{pounds} = \frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$$

Adapters for GAS - NPT threading available on page 1.134

GAS - NPT ADAPTERS

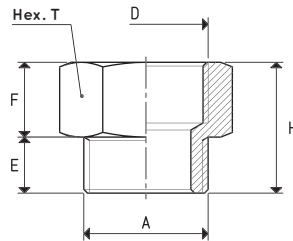
These adapters allow using NPT threaded fittings on vacuum components with NPT threading, such as vacuum components like vacuum cup supports, valves and solenoid valves, filters etc. with gas threading.



FEMALE GAS - MALE NPT ADAPTER

Item	A Ø	D Ø	E	F	H	T
00 08 259	1/8" NPT	G1/8"	10	12	22	14
00 08 260	1/4" NPT	G1/4"	12	17	29	19
00 08 261	3/8" NPT	G3/8"	16	18	34	22
00 08 262	1/2" NPT	G1/2"	17	19	36	27
00 08 263	3/4" NPT	G3/4"	19	20	39	32
00 08 264	1" NPT	G1"	22	20	42	41
00 08 265	1" 1/4 NPT	G1" 1/4	23	23	46	50
00 08 266	1" 1/2 NPT	G1" 1/2	23	23	46	60
00 08 267	2" NPT	G2"	25	24	49	70

Note: All adapters are manufactured per minimum batch sizes and with cost evaluated upon final balance.



MALE GAS - FEMALE NPT ADAPTER

Item	A Ø	D Ø	E	F	H	T
00 08 268	G1/8"	1/8" NPT	10	15	25	14
00 08 269	G1/4"	1/4" NPT	11	17	28	19
00 08 270	G3/8"	3/8" NPT	12	22	34	22
00 08 271	G1/2"	1/2" NPT	14	23	37	27
00 08 272	G3/4"	3/4" NPT	14	24	38	32
00 08 273	G1"	1" NPT	17	28	45	41
00 08 274	G1" 1/4	1" 1/4 NPT	18	28	46	50
00 08 275	G1" 1/2	1" 1/2 NPT	19	29	48	60
00 08 276	G2"	2" NPT	20	31	51	70

Note: All adapters are manufactured per minimum batch sizes and with cost evaluated upon final balance.