



PATENTED

SERIES: A

INTERCHANGE: ISO 16028 and NFPA T3.20.15 (HTMA)

MAIN APPLICATIONS

- Mobile construction equipment
- Agricultural equipment
- Hydraulic tools
- Industrial equipment
- Vehicles

Series "A" is the evolution of Stucchi technology and quality applied to flat face couplings. The series has a internal design combined with a high resistance material to allow the achievement of higher operating pressure and minimal pressure drop. The modular structure allows the flexibility to offer several types of threads or special ports in order to satisfy diverse applications while maintaining a compact dimension. These features make series "A" couplings the leader in many hydraulics applications where high performance is necessary with the elimination of fluid loss and contamination in the circuit.

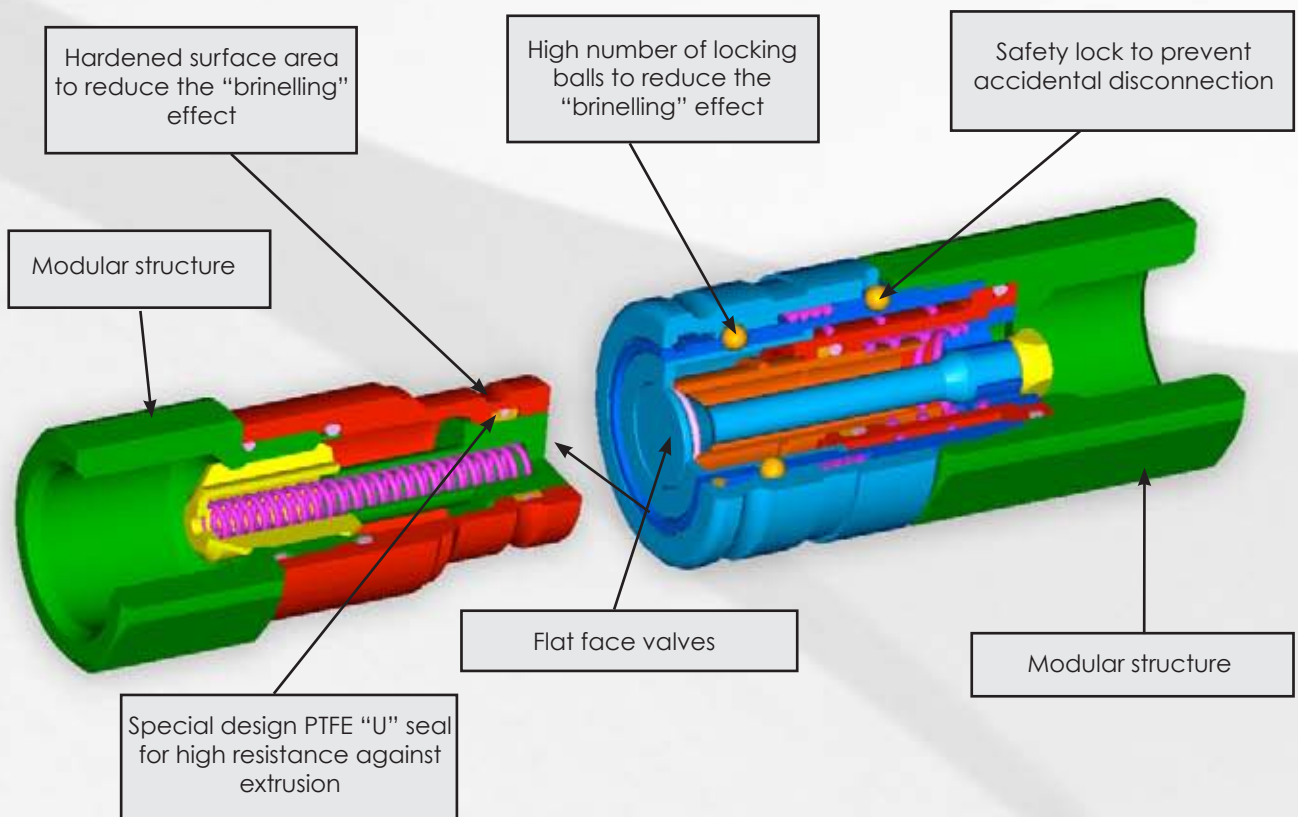


Stucchi®

A CONSTANT FLOW OF SOLUTIONS

TECHNICAL FEATURES AND OPTIONS

- Interchangeability: ISO 16028 (from size 6.3 to 25) HTMA (size 10)
- Valve system: Flat face
- Mechanical connection: Locking balls
- Connection system: Push to connect
- Disconnection system: Pulling back the sleeve of the female
- Connection with residual pressure: Not allowed
- Disconnection with residual pressure: Not allowed
- Threads available: BSP, NPT, SAE
- Threads on request: Metrics DIN, ORFS, and others
- Construction material: High resistance carbon steel
- Surface treatment: CrIII zinc plated
- External springs: AISI 302
- Internal springs: C72 steel
- Locking ball material: Hard steel 100 C6
- Seals: standard in NBR (Nitrile)
- Seals on request: Viton and others
- Anti-extrusion rings: PTFE



BENEFITS

- Flat face is easy to clean, helping to reduce the inclusion of contamination to the hydraulic circuit.
- Minimal fluid loss during connection / disconnection, reducing fluid loss to the environment.
- Minimal air inclusion during connection / disconnection, enhancing correct function of the circuit.
- Internal valve design creates minimal pressure drop, maintaining circuit efficiency in the system
- The modular design allows flexibility with the range of port configurations.
- Good resistance at impulse pressures.
- Compact slim design.
- Safe and simple to use.

HOW TO USE

- Before to couple clean the flat mating surface of quick coupling to avoid the inclusion of dirty in the circuit.
- To couple push the male half towards the female half or vice versa.
- After connection turn the external sleeve to engage lock function, to prevent accidental disconnection.
- To uncouple turn the external sleeve until the sleeve lock groove corresponds with the safety lock ball and pull back the sleeve.

WARNING!

- Do not use the female coupling disconnected with impulse pressure at high frequency.
- Do not couple-uncouple with flow and/or pressure in the circuit.
- Do not couple-uncouple when the temperature inside of the circuit is higher than 80 °C (176 °F).
- When the couplings are disconnected, it is suggested to use the protection caps.

PERFORMANCE

Description	Size	ISO Size	Rated Flow		Max. flow suggested		Connect force		Disconnect force		Spillage*
			l/min	GPM	l/min	GPM	N	lbf	N	lbf	
A4	1/8	-	3	0,80	6	1,59	120	27,00	25	5,63	0,001
A7	1/4	6,3	12	3,18	24	6,36	150	33,75	45	10,13	0,006
A9	3/8	10,0	23	6,10	46	12,19	170	38,25	40	9,00	0,012
A13	1/2	12,5	45	11,93	90	23,85	190	42,75	50	11,25	0,020
A15	5/8	16,0	74	19,61	148	39,22	190	42,75	55	12,38	0,026
A17	3/4	19,0	100	26,50	200	53,00	220	49,50	70	15,75	0,032
A21	1	25,0	189	50,09	378	100,17	250	56,25	75	16,88	0,035
A25	1-1/4	-	225	59,63	450	119,25	350	78,75	90	20,25	0,170
A30	1-1/2	-	288	76,32	750	198,75	390	87,75	70	15,75	0,050

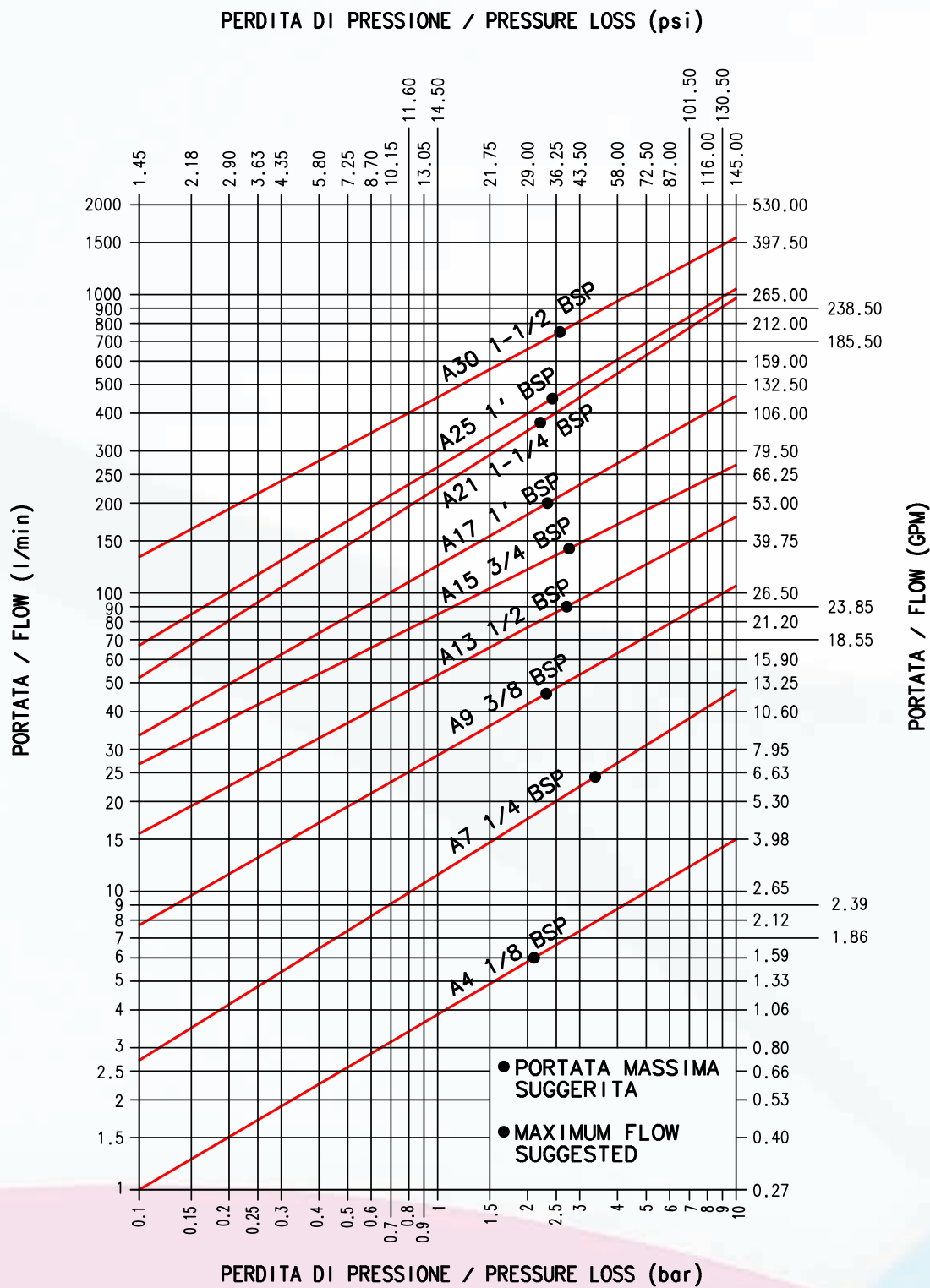
Description	Max. operating pressure						Burst pressure					
	Coupled		Male		Female		Coupled		Male		Female	
	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
A4	42	6090	42	6090	42	6090	126	18270	126	18270	126	18270
A7	42	6090	42	6090	42	6090	126	18270	126	18270	126	18270
A9	35	5075	35	5075	35	5075	100	14500	100	14500	100	14500
A13	33	4785	33	4785	33	4785	100	14500	100	14500	100	14500
A15	33	4785	33	4785	33	4785	100	14500	100	14500	100	14500
A17	33	4785	33	4785	33	4785	100	14500	100	14500	100	14500
A21	30	4350	30	4350	30	4350	80	11600	80	11600	80	11600
A25	30	4350	30	4350	30	4350	80	11600	80	11600	80	11600
A30	27	3915	27	3915	27	3915	80	11600	80	11600	70	10150

* Spillage is an indicative value of the fluid loss per couple-uncouple cycle.

- Temperature range:
 - Standard seals NBR (Nitrile): from -20 °C to +100 °C (from -4 °F to +212 °F).
 - VITON seals: form -15°C to +180°C (from +5 °F to +356 °F).
- Tests:
 - The couplings have been tested at impulse with max. operating pressure for 100.000 impulses in according with ISO 7241-2.

PRESSURE DROP

TESTS ESEGUITI IN CONFORMITA' A ISO 7241-2
TESTS IN ACCORDANCE WITH ISO 7241-2



FLUIDO: OLIO ISO VG32
TEMPERATURA: 40°C
VISCOSITA': 28.8-35.2 mm²/s

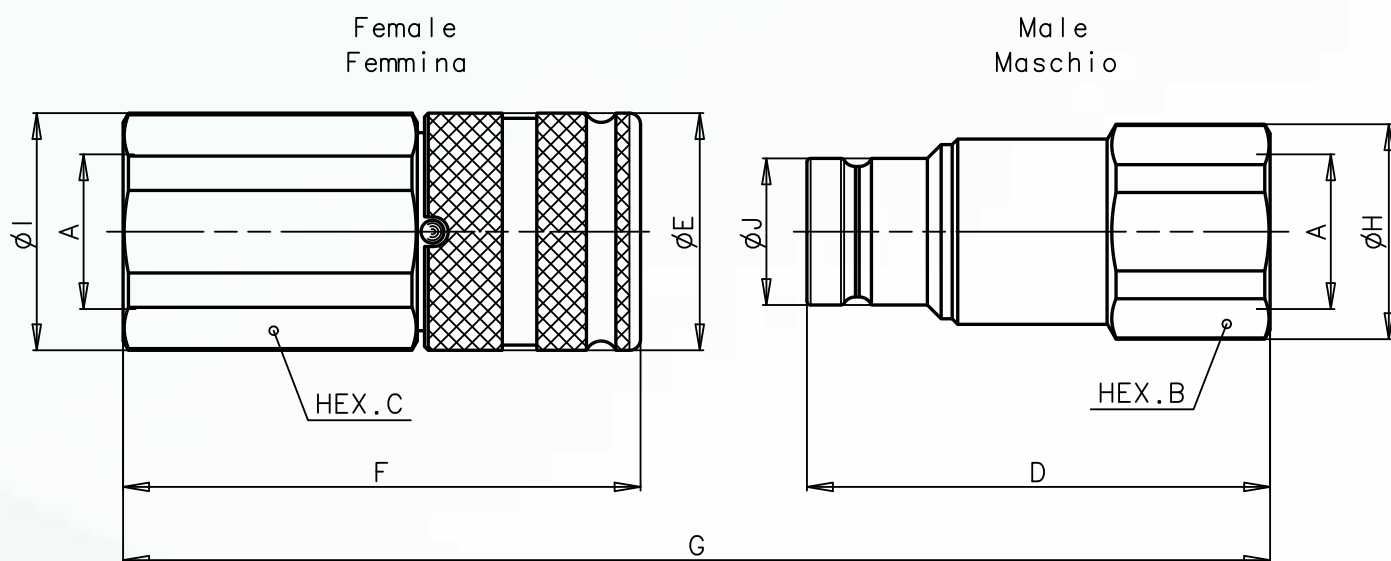
FLUID: OIL ISO VG32
TEMPERATURE: 40°C
VISCOSITY: 28.8-35.2 mm²/s



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A CONSTANT FLOW OF SOLUTIONS

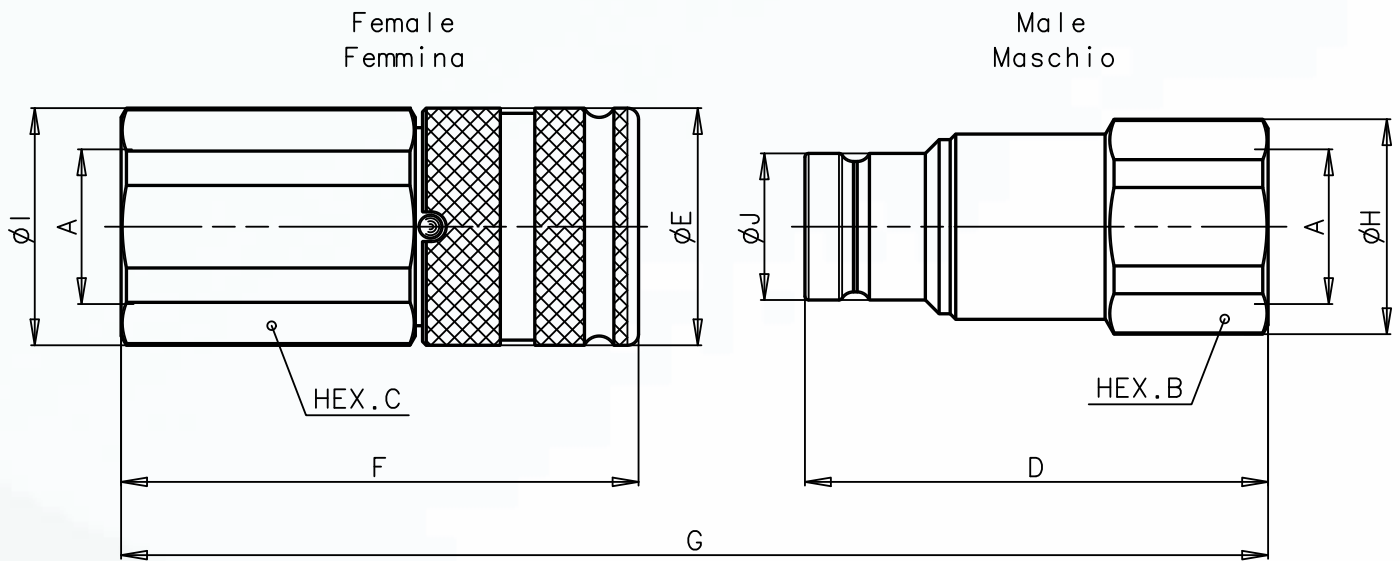
OVERALL DIMENSIONS



FEMALE BSPP THREAD (DIN 3852)

Description	A	Unit	B	C	D	E	F	G	H	I	J	Unit	Weight	
													Male	Female
A4 1/8 BSP	1/8	mm	17	19	36,3	20	40	68,4	18,5	20,5	11,6	Kg	0,038	0,073
		Inch	0,67	0,75	1,43	0,79	1,57	2,69	0,73	0,81	0,46	lb	0,08	0,16
A7 1/4 BSP	1/4	mm	22	27	47,9	28	53,1	90,2	23,8	29	16,1	Kg	0,086	0,187
		Inch	0,87	1,06	1,89	1,10	2,09	3,55	0,94	1,14	0,63	lb	0,19	0,41
A9 3/8 BSP	3/8	mm	27	30	60	32	64,8	108,8	29	32	19,7	Kg	0,146	0,273
		Inch	1,06	1,18	2,36	1,26	2,55	4,28	1,14	1,26	0,78	lb	0,32	0,60
A9 1/2 BSP	1/2	mm	27	30	62,5	32	69,8	116,3	29	32	19,7	Kg	0,138	0,278
		Inch	1,06	1,18	2,46	1,26	2,75	4,58	1,14	1,26	0,78	lb	0,30	0,61
A13 1/2 BSP	1/2	mm	36	36	68	38	76,8	127,5	40	40	24,5	Kg	0,235	0,452
		Inch	1,42	1,42	2,68	1,50	3,02	5,02	1,57	1,57	0,96	lb	0,52	1,00
A13 3/4 BSP	3/4	mm	36	36	70,5	38	83,8	137	40	40	24,5	Kg	0,273	0,462
		Inch	1,42	1,42	2,78	1,50	3,30	5,39	1,57	1,57	0,96	lb	0,60	1,02
A15 3/4 BSP	3/4	mm	36	41	73	42	84	139,4	38,5	44,8	27	Kg	0,299	0,626
		Inch	1,42	1,61	2,87	1,65	3,31	5,49	1,52	1,76	1,06	lb	0,66	1,38
A17 3/4 BSP	3/4	mm	46	46	83,7	48	96,8	158,5	49,8	49,8	30	Kg	0,525	0,970
		Inch	1,81	1,81	3,30	1,89	3,81	6,24	1,96	1,96	1,18	lb	1,16	2,14
A17 1 BSP	1	mm	46	46	83,7	48	98,8	160,5	49,8	49,8	30	Kg	0,475	0,937
		Inch	1,81	1,81	3,30	1,89	3,89	6,32	1,96	1,96	1,18	lb	1,05	2,07
A21 1 BSP	1	mm	55	55	96,8	55	104,8	178,6	59,8	59,8	36	Kg	0,890	1,415
		Inch	2,17	2,17	3,81	2,17	4,13	7,03	2,35	2,35	1,42	lb	1,96	3,12
A21 1-1/4 BSP	1-1/4	mm	55	55	90	55	105,8	172,8	59,8	59,8	36	Kg	0,706	1,312
		Inch	2,17	2,17	3,54	2,17	4,17	6,80	2,35	2,35	1,42	lb	1,56	2,89
A25 1 BSP	1	mm	55	55	100	65	120,1	196,8	59,8	65	44	Kg	1,130	2,090
		Inch	2,17	2,17	3,94	2,56	4,73	7,75	2,35	2,56	1,73	lb	2,49	4,61
A25 1-1/4 BSP	1-1/4	mm	55	55	105	65	125,1	206,8	59,8	65	44	Kg	1,085	2,070
		Inch	2,17	2,17	4,13	2,56	4,93	8,14	2,35	2,56	1,73	lb	2,39	4,56
A30 1-1/2 BSP	1-1/2	mm	65	65	111,1	80	132,4	214,9	69,8	82	57	Kg	1,665	3,140
		Inch	2,56	2,56	4,37	3,15	5,21	8,46	2,75	3,23	2,24	lb	3,67	6,92

OVERALL DIMENSIONS

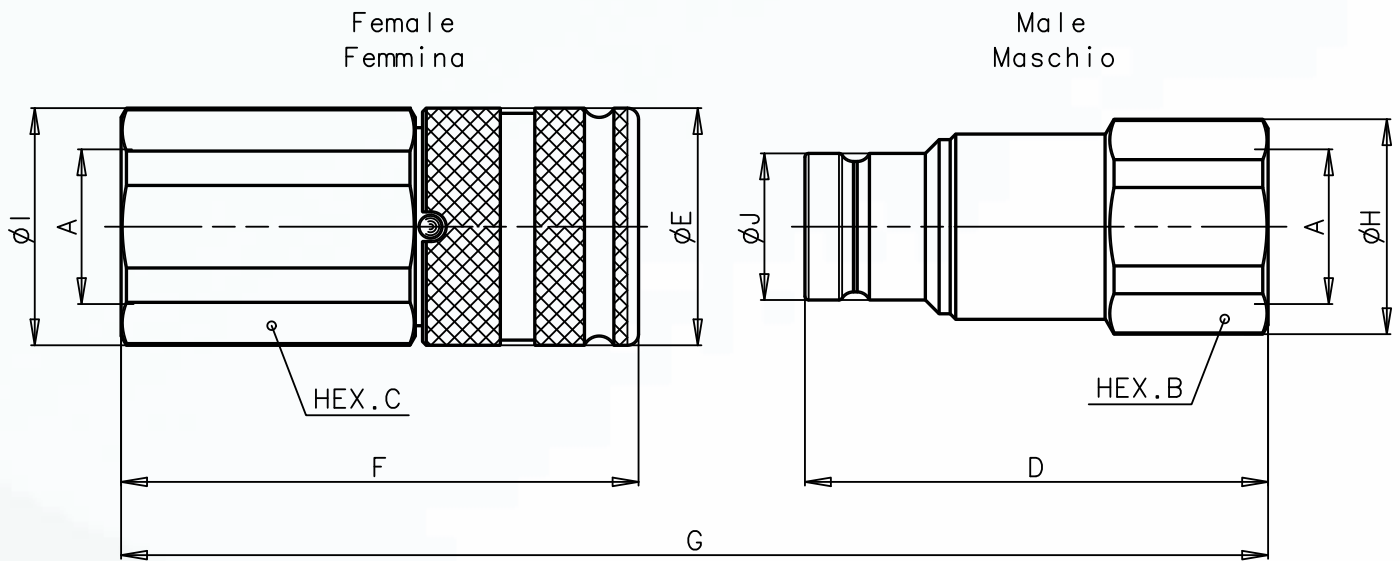


FEMALE NPT THREAD (ANSI B.1.20.3)

Description	A	Unit	B	C	D	E	F	G	H	I	J	Unit	Weight	
													Male	Female
A4 1/8 NPT	1/8	mm Inch	17 0,67	19 0,75	36,3 1,43	20 0,79	40 1,57	68,4 2,69	18,5 0,73	20,5 0,81	11,6 0,46	Kg lb	0,038 0,08	0,073 0,16
A7 1/4 NPT	1/4	mm Inch	22 0,87	27 1,06	47,9 1,89	28 1,10	53,1 2,09	90,2 3,55	23,8 0,94	29 1,14	16,1 0,63	Kg lb	0,088 0,19	0,187 0,41
A9 3/8 NPT	3/8	mm Inch	27 1,06	30 1,18	60 2,36	32 1,26	64,8 2,55	108,8 4,28	29 1,14	32 1,26	19,7 0,78	Kg lb	0,150 0,33	0,273 0,60
A9 1/2 NPT	1/2	mm Inch	27 1,06	30 1,18	62,5 2,46	32 1,26	69,8 2,75	116,3 4,58	29 1,14	32 1,26	19,7 0,78	Kg lb	0,138 0,30	0,278 0,61
A13 1/2 NPT	1/2	mm Inch	36 1,42	36 1,42	68 2,68	38 1,50	76,8 3,02	127,5 5,02	40 1,57	40 1,57	24,5 0,96	Kg lb	0,295 0,65	0,452 1,00
A13 3/4 NPT	3/4	mm Inch	36 1,42	36 1,42	70,5 2,78	38 1,50	83,8 3,30	137 5,39	40 1,57	40 1,57	24,5 0,96	Kg lb	0,273 0,60	0,469 1,03
A15 3/4 NPT	3/4	mm Inch	36 1,42	41 1,61	73 2,87	42 1,65	84 3,31	139,4 5,49	38,5 1,52	44,8 1,76	27 1,06	Kg lb	0,292 0,64	0,631 1,39
A17 3/4 NPT	3/4	mm Inch	46 1,81	46 1,81	83,7 3,30	48 1,89	95,8 3,77	157,5 6,20	49,8 1,96	49,8 1,96	30 1,18	Kg lb	0,535 1,18	0,960 2,12
A17 1 NPT	1	mm Inch	46 1,81	46 1,81	83,7 3,30	48 1,89	98,8 3,89	160,5 6,32	49,8 1,96	49,8 1,96	30 1,18	Kg lb	0,473 1,04	0,931 2,05
A21 1 NPT	1	mm Inch	55 2,17	55 2,17	96,8 3,81	55 2,17	104,8 4,13	178,6 7,03	59,8 2,35	59,8 2,35	36 1,42	Kg lb	0,900 1,98	1,430 3,15
A21 1-1/4 NPT	1-1/4	mm Inch	55 2,17	55 2,17	90 3,54	55 2,17	105,8 4,17	172,8 6,80	59,8 2,35	59,8 2,35	36 1,42	Kg lb	0,700 1,54	1,312 2,89
A25 1 NPT	1	mm Inch	55 2,17	55 2,17	105 4,13	65 2,56	125,1 4,93	206,8 8,14	59,8 2,35	65 2,56	44 1,73	Kg lb	1,130 2,49	2,090 4,61
A25 1-1/4 NPT	1-1/4	mm Inch	55 2,17	55 2,17	105 4,13	65 2,56	125,1 4,93	206,8 8,14	59,8 2,35	65 2,56	44 1,73	Kg lb	1,105 2,44	2,100 4,63
A30 1-1/2 NPT	1-1/2	mm Inch	65 2,56	65 2,56	111,1 4,37	80 3,15	132,4 5,21	214,9 8,46	69,8 2,75	82 3,23	57 2,24	Kg lb	1,665 3,67	3,140 6,92



OVERALL DIMENSIONS



FEMALE SAE THREAD (SAE J1926-1)

Description	A	Unit	B	C	D	E	F	G	H	I	J	Unit	Weight	
													Male	Female
A4 3/16 SAE	3/8-24UNF	mm	17	19	36,3	20	40	68,4	18,5	20,5	11,6	Kg	0,038	0,075
		Inch	0,67	0,75	1,43	0,79	1,57	2,69	0,73	0,81	0,46	Lb	0,08	0,17
A7 3/8 SAE	9/16-18UNF	mm	22	27	50,9	28	56,1	96,2	23,8	29	16,1	Kg	0,091	0,200
		Inch	0,87	1,06	2,00	1,10	2,21	3,79	0,94	1,14	0,63	Lb	0,20	0,44
A9 3/8 SAE	9/16-18UNF	mm	27	30	60	32	64,8	108,8	29	32	19,7	Kg	0,084	0,273
		Inch	1,06	1,18	2,36	1,26	2,55	4,28	1,14	1,26	0,78	Lb	0,19	0,60
A9 1/2 SAE	3/4-16UNF	mm	27	30	62,5	32	69,8	116,3	29	32	19,7	Kg	0,145	0,285
		Inch	1,06	1,18	2,46	1,26	2,75	4,58	1,14	1,26	0,78	Lb	0,32	0,63
A9 5/8 SAE	7/8-14UNF	mm	30	30	65,5	32	71,8	121,3	32	32	19,7	Kg	0,165	0,275
		Inch	1,18	1,18	2,58	1,26	2,83	4,78	1,26	1,26	0,78	Lb	0,36	0,61
A13 5/8 SAE	7/8-14UNF	mm	36	36	70	38	78,8	131,5	40	40	24,5	Kg	0,294	0,456
		Inch	1,42	1,42	2,76	1,50	3,10	5,18	1,57	1,57	0,96	Lb	0,65	1,01
A13 3/4 SAE	1-1/16-12UN	mm	36	36	72,5	38	83,8	139	40	40	24,5	Kg	0,277	0,462
		Inch	1,42	1,42	2,85	1,50	3,30	5,47	1,57	1,57	0,96	Lb	0,61	1,02
A15 3/4 SAE	1-1/16-12UN	mm	36	41	73,0	42	84	139,4	38,5	44,8	27	Kg	0,295	0,625
		Inch	1,42	1,61	2,87	1,65	3,31	5,49	1,52	1,76	1,06	Lb	0,65	1,38
A17 3/4 SAE	1-1/16-12UN	mm	46	46	83,7	48	98,8	160,5	49,8	49,8	30	Kg	0,520	0,985
		Inch	1,81	1,81	3,30	1,89	3,89	6,32	1,96	1,96	1,18	Lb	1,15	2,17
A17 1 SAE	1-5/16-12UN	mm	46	46	83,7	48	98,8	160,5	49,8	49,8	30	Kg	0,467	0,928
		Inch	1,81	1,81	3,30	1,89	3,89	6,32	1,96	1,96	1,18	Lb	1,03	2,05
A21 1 SAE	1-5/16-12UN	mm	55	55	96,8	55	104,8	178,6	59,8	59,8	36	Kg	0,890	1,415
		Inch	2,17	2,17	3,81	2,17	4,13	7,03	2,35	2,35	1,42	Lb	1,96	3,12
A21 1-1/4 SAE	1-5/8-12UN	mm	55	55	90	55	105,8	172,8	59,8	59,8	36	Kg	0,706	1,320
		Inch	2,17	2,17	3,54	2,17	4,17	6,80	2,35	2,35	1,42	Lb	1,56	2,91
A25 1 SAE	1-5/16-12UN	mm	55	55	105	65	125,1	206,8	59,8	65	44	Kg	1,130	2,090
		Inch	2,17	2,17	4,13	2,56	4,93	8,14	2,35	2,56	1,73	Lb	2,49	4,61
A25 1-1/4 SAE	1-5/8-12UN	mm	55	55	105	65	125,1	206,8	59,8	65	44	Kg	1,085	2,070
		Inch	2,17	2,17	4,13	2,56	4,93	8,14	2,35	2,56	1,73	Lb	2,39	4,56
A30 1-1/2 SAE	1-7/8-12UN	mm	65	65	111,1	80	132,4	214,9	69,8	82	57	Kg	1,660	3,160
		Inch	2,56	2,56	4,37	3,15	5,21	8,46	2,75	3,23	2,24	Lb	3,66	6,97

PROTECTION CAPS FOR FIRG - A, VP-P, VEP-P AND VEP-HD SERIES

Protective caps are always recommended to protect the couplings from damage, dirt inclusion, and will increase the product life. This is particularly important in mobile applications where exposure to weather and aggregate materials are common.

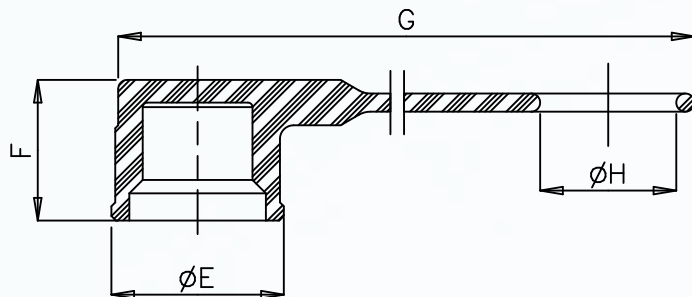
The protection caps for FIRG-A series are available in three kind of materials:

- PVC (from FIRG14-A7 to FIRG114-A21)
- Aluminum (from A25 to FIRG200)
- Nylon (from FIRG38-A9 to FIRG100-A17)

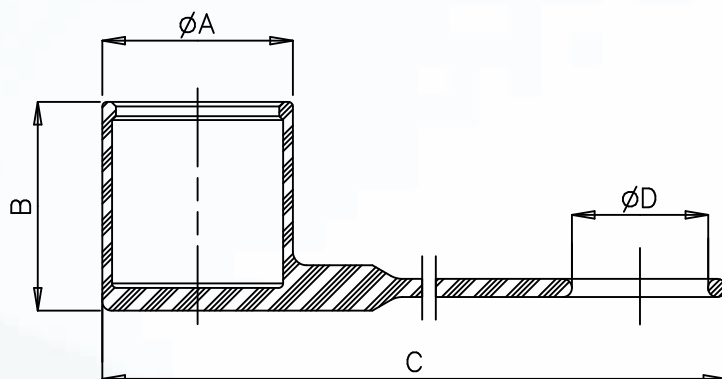
The protection caps for VP-P, VEP-P and VEP-HD series are manufactured in anodizing aluminum.



OVERALL DIMENSIONS PROTECTION CAPS FOR FIRG-A SERIES



TAPPO PER INNESTO
MASCHIO
Cap of male half



TAPPO PER INNESTO
FEMMINA
Cap of female half

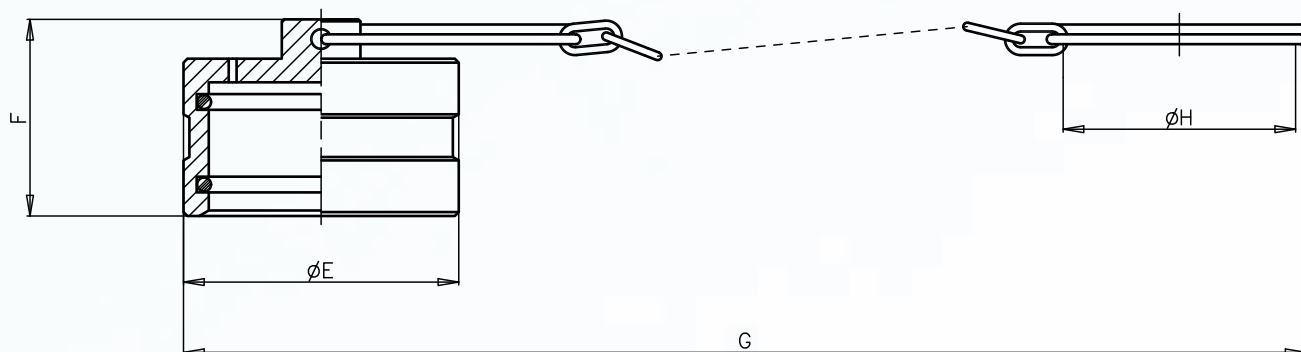
PVC CAPS

- Available in following colors: Red, yellow, blue, black and green.
- Temperature range: from -20 °C to +100 °C (from -4 °F to +212 °F).

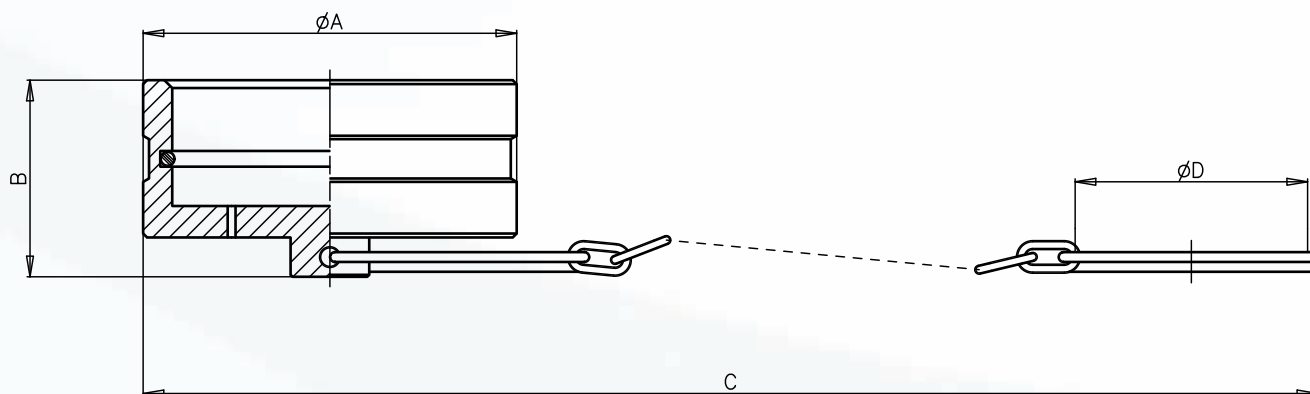
Description	Coupling	Unit	A	B	C	D	E	F	G	H	Unit	Weight
P-7B	F-FIRG14 F-A7	mm Inch	32 1,26	38 1,50	239 9,41	20 0,79	- -	- -	- -	- -	Kg lb	0,017 0,04
D-7	M-FIRG14 M-A7	mm Inch	- -	- -	- -	- -	28 1,10	23 0,91	230 9,06	20 0,79	Kg lb	0,010 0,02
P-9D	F-FIRG38 F-A9 3/8	mm Inch	36 1,42	43 1,69	247 9,72	25 0,98	- -	- -	- -	- -	Kg lb	0,022 0,05
D-9S	M-FIRG38 M-A9 3/8	mm Inch	- -	- -	- -	- -	32 1,26	28 1,10	233 9,17	20 0,79	Kg lb	0,015 0,03
P-9D	F-FIRG12 F-A9 1/2	mm Inch	36 1,42	43 1,69	247 9,72	25 0,98	- -	- -	- -	- -	Kg lb	0,022 0,05
D-9L	M-FIRG12 M-A9 1/2	mm Inch	- -	- -	- -	- -	32 1,26	28 1,10	235 9,25	25 0,98	Kg lb	0,015 0,03
P-13D	F-FIRG12A F-A13 1/2	mm Inch	42 1,65	46 1,81	256 10,08	25 0,98	- -	- -	- -	- -	Kg lb	0,032 0,07
D-13S	M-FIRG12A M-A13 1/2	mm Inch	- -	- -	- -	- -	38 1,50	31,5 1,24	248 9,76	25 0,98	Kg lb	0,020 0,04
P-13F	F-FIRG34 F-A13 3/4	mm Inch	42 1,65	46 1,81	259 10,20	30 1,18	- -	- -	- -	- -	Kg lb	0,032 0,07
D-13L	M-FIRG34 M-A13 3/4	mm Inch	- -	- -	- -	- -	38 1,50	31,5 1,24	248 9,76	30 1,18	Kg lb	0,020 0,04
P-15F	F-FIRG34B F-A15	mm Inch	46 1,81	50 1,97	265 10,43	30 1,18	- -	- -	- -	- -	Kg lb	0,038 0,08
D-15F	M-FIRG34B M-A15	mm Inch	- -	- -	- -	- -	42 1,65	28 1,10	256 10,08	30 1,18	Kg lb	0,036 0,08
P-17G	F-FIRG100 F-A17	mm Inch	52 2,05	62 2,44	318 12,52	35 1,38	- -	- -	- -	- -	Kg lb	0,058 0,13
D-17G	M-FIRG100 M-A17	mm Inch	- -	- -	- -	- -	48 1,89	35 1,38	310 12,20	35 1,38	Kg lb	0,063 0,14
P-21H	F-FIRG114 F-A21	mm Inch	60 2,36	68 2,68	335 13,19	45 1,77	- -	- -	- -	- -	Kg lb	0,080 0,18
D-21H	M-FIRG114 M-A21	mm Inch	- -	- -	- -	- -	55 2,17	38,5 1,52	324 12,76	45 1,77	Kg lb	0,079 0,17



OVERALL DIMENSIONS PROTECTION CAPS FOR FIRG-A SERIES



TAPPO PER INNESTO MASCHIO
Cap of male half



TAPPO PER INNESTO FEMMINA
Cap of female half

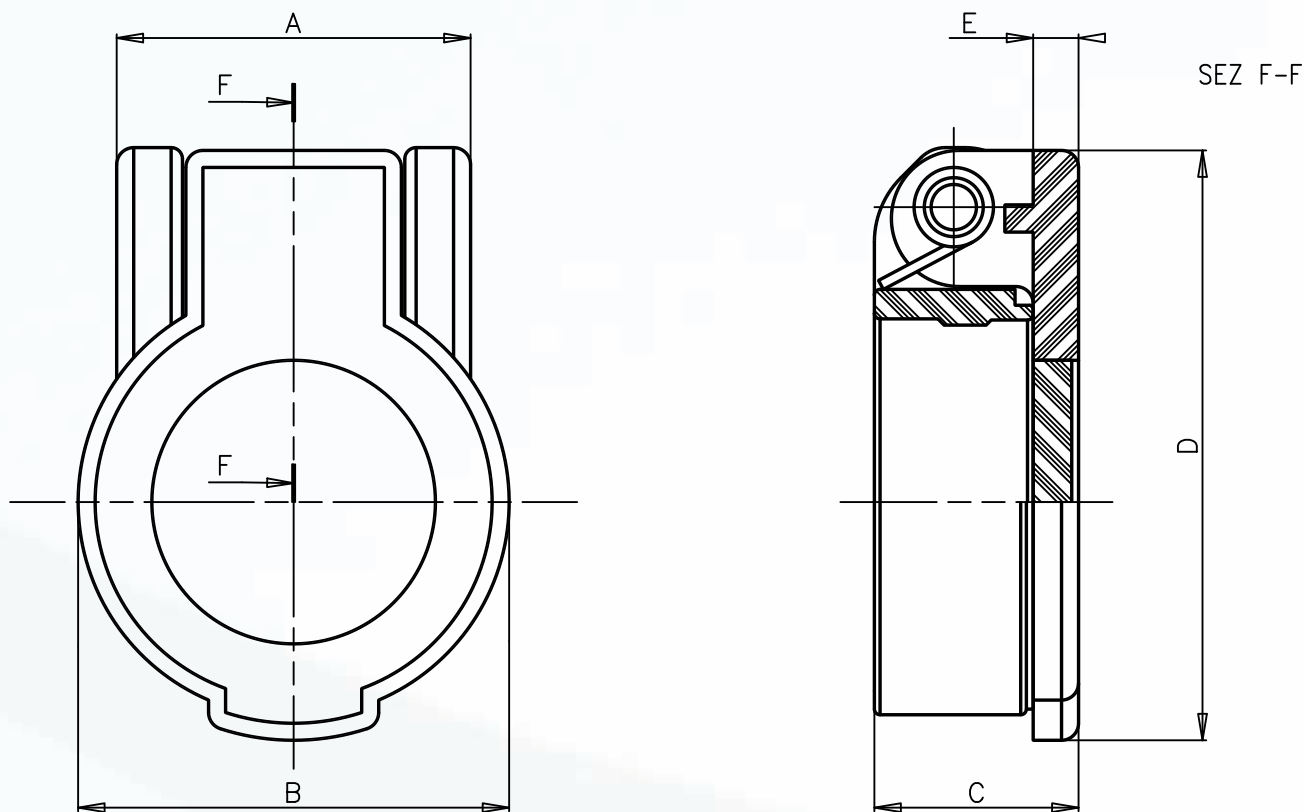
ALUMINUM CAPS

- Available in following colors: White and red.
- Temperature range: from -20 °C to +100 °C (from -4 °F to +212 °F).

Description	Coupling	Unit	A	B	C	D	E	F	G	H	Unit	Weight
-	F-A25	mm Inch	80 3,15	41 1,61	370 14,57	51 2,01	- -	- -	- -	- -	Kg lb	0,220 0,49
-	M-A25	mm Inch	- -	- -	- -	- -	60 2,36	46 1,81	360 14,17	51 2,01	Kg lb	0,180 0,40
-	F-FIRG112 F-A30	mm Inch	95 3,74	50 1,97	380 14,96	58,5 2,30	- -	- -	- -	- -	Kg lb	0,355 0,78
-	M-FIRG112 M-A30	mm Inch	- -	- -	- -	- -	70 2,76	50 1,97	368 14,49	58,5 2,30	Kg lb	0,205 0,45
-	F-FIRG200	mm Inch	115 4,53	50 1,97	435 17,13	75 2,95	- -	- -	- -	- -	Kg lb	0,470 1,04
-	M-FIRG200	mm Inch	- -	- -	- -	- -	85 3,35	62 2,44	420 16,54	75 2,95	Kg lb	0,305 0,67



OVERALL DIMENSIONS PROTECTION CAPS FOR FIRG-A SERIES



NYLON FLIP CAPS

- Available in following colors: Red, yellow, blue, black and green.
- Temperature range: from -20 °C to +100 °C (from -4 °F to +212 °F).

Description	Coupling	Unit	A	B	C	D	E	Unit	Weight
-	F-FIRG38-12	mm	31,5	38	18	52	4	Kg	0,018
-	F-A9	Inch	1,24	1,50	0,71	2,05	0,16	lb	0,04
-	F-FIRG12A-34	mm	31,5	46	18	60	4	Kg	0,023
-	F-A13	Inch	1,24	1,81	0,71	2,36	0,16	lb	0,05
-	F-FIRG34B	mm	31,5	50	18	64	4	Kg	0,025
-	F-A15	Inch	1,24	1,97	0,71	2,52	0,16	lb	0,05
-	F-FIRG34A-100	mm	31,5	56	18	70	4	Kg	0,025
-	F-A17	Inch	1,24	2,20	0,71	2,76	0,16	lb	0,06