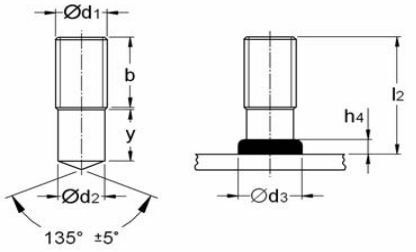
S W
STUD WELDING
Pol. Ind. Empresarium
C/ Retama, 23 Nave A14
50720 La Cartuja Baja
Zaragoza
Tlf. (0034) 876 262632
Fax (0034) 876 262607

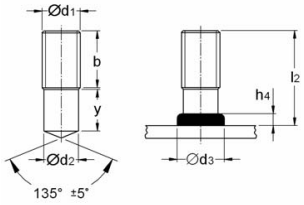
CATÁLOGO DE PERNOS



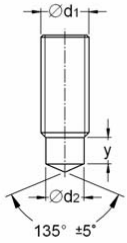
ESPÁRRAGO ROSCADO "PD"

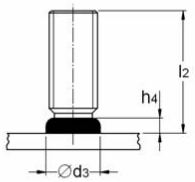
DIN EN ISO 13918

d^1	L^2	$h^4 1$	d^2	$d^3 1$	b	Y^{min}	Peso Kg/100	Cerámica
M 6	20	3,5	5,35	8,5		9	0,38	PF 6 (P 6)
	25						0,45	
	30						0,55	
	35				20		0,64	
	40						0,73	
	50						0,91	
	60						1,08	
M 8	20	3,5	7,19	10		9	0,69	PF 8 (P 8)
	25						0,84	
	30						1	
	35						1,16	
	40						1,32	
	45						1,48	
	50				40		1,64	
	55						1,8	
	60						1,96	
	80						2,6	
	100						3,18	
M 10	20	4	9,03	12,5		9,5	1,09	PF 10 (P 10)
	25						1,34	
	30						1,57	
	35						1,84	
	40						2,09	
	50				40		2,6	
	55						2,85	
	60						3,08	
	70						3,6	
	80						4,1	
	100						5,11	
	140				80		7,12	
	150						7,62	
	160						8,13	
M 12	25	4,5	10,86	15,5		11,5	1,95	PF 12 (P 12)
	30						2,31	
	35						2,64	
	40						30,4	
	45						3,4	
	50				40		3,76	
	60						4,49	
	70						5,22	
	80						5,94	
	100						7,4	
	120						8,85	
	140				80		10,31	
	150						11,03	
	160						11,76	



d1	l2	h41	d2	d31	b	Ymin	Peso Kg/100	Cerámica
M 16	30	6	14,7	19,5		13,5	4,27	
	35						4,81	
	40						5,6	
	45						6,26	
	50						6,93	
	55				40		7,6	
	60						8,26	
	65						8,93	PF 16
	70				50		9,59	(P 16)
	75						10,04	
	80						10,93	
	85						11,59	
	90						12,26	
	100				80		13,59	
	140						18,92	
	160						21,58	
M 20	40	7	18,38	24,5		15,5	8,8	
	45						9,85	
	50				35		10,67	
	60						12,97	
	65				40		14,01	
	70						15,05	PF 20
	80				50		17,14	(P 20 F)
	90						18,82	
	100				70		21,3	
	115						24,42	
	120						25,47	
	125						26,51	
M 24	50	10	22,05	30		20	15,74	
	55						17,24	
	60						18,74	
	70				50		21,2	
	80						24,74	PF 24
	90						27,73	(SN 22)
	100				70		30,73	
	120						36,73	
	150				100		45,72	

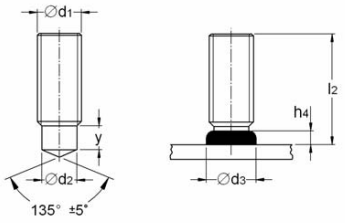




ESPÁRRAGO ROSCADO CON EJE REDUCIDO "RD"

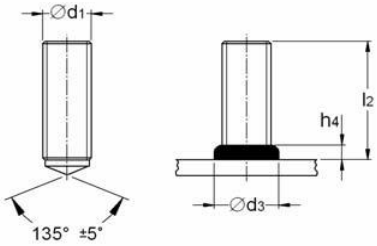
DIN EN ISO 13918

d^1	L^2	$h^4 1$	d^2	$d^3 1$	Y^{min}	Peso Kg/100	Cerámica
M 6	20	2,5	4,7	7	4	0,34	RF 6 (SR 6)
	25					0,43	
	30					0,52	
	35					0,6	
	40					0,69	
	50					0,87	
	60					1,05	
M 8	20	2,5	6,2	9	4	0,61	RF 8 (SR 8)
	25					0,77	
	30					0,93	
	35					1,09	
	40					1,25	
	45					1,41	
	50					1,57	
	55					1,73	
	60					1,89	
	80					2,52	
	100					3,16	
M 10	20	3	7,9	11,5	5	0,96	RF 10 (SR 10)
	25					1,21	
	30					1,46	
	35					1,72	
	40					1,97	
	50					2,47	
	55					2,72	
	70					3,48	
	80					3,98	
	100					5,01	
M 12	25	4	9,5	13,5	6	1,74	RF 12 (SR 12)
	30					2,11	
	35					2,47	
	40					2,83	
	45					3,2	
	50					3,56	
	60					4,29	
	70					5,02	
	80					5,74	
	100					7,2	



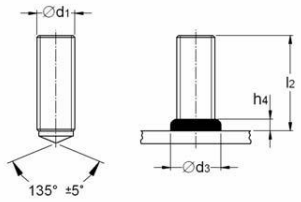
d[1]	L[2]	h[4]1	d[2]	d[3]1	Y[min]	Peso Kg/100	Cerámica
M 16	30	6	13,2	18	11	3,81	RF 16 (KR 16)
	35					4,48	
	40					5,14	
	45					5,81	
	50					6,48	
	55					7,14	
	60					7,81	
	65					8,47	
	70					9,14	
	75					9,81	
	80					10,47	
	90					11,8	
	100					13,14	
M 20	40	7	16,5	23	13	8	RF 20 (SR 20 F)
	45					9,04	
	50					10,8	
	60					12,16	
	65					13,2	
	70					14,25	
	80					16,33	
	90					18,41	
	100					20,49	
M 24	50	10	20	28	15	14,53	RF 24 (KR 24)
	55					16,03	
	60					17,53	
	70					20,53	
	80					23,52	
	90					26,52	
	100					29,52	

P.I. EMPRESARIUM C/RETAMA, 23 NAVE A14-A13 50720 LA CARTUJA BAJA (ZARAGOZA) TLF: 876262632 FAX: 876262607

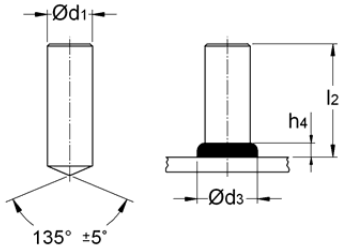


ESPÁRRAGO ROSCADO "DD"

d[1]	L[2]	h[4]1	d[3]1	Peso Kg/100	Cerámica
M 6	20	4	8,5	0,38	UF 6 (SN 6)
	25			0,45	
	30			0,55	
	35			0,64	
	40			0,73	
	50			0,91	
	60			1,08	
M 8	20	4	11	0,69	UF 8 (SN 8)
	25			0,84	
	30			1	
	35			1,16	
	40			1,32	
	45			1,48	
	50			1,64	
	55			1,8	
	60			1,96	
	80			2,6	
	100			3,18	
M 10	20	4	13	1,09	UF 10 (SN 10)
	25			1,34	
	30			1,57	
	35			1,84	
	40			2,09	
	50			2,6	
	55			2,85	
	60			3,08	
	70			3,6	
	80			4,1	
	100			5,11	
M 12	25	5	16	1,95	UF 12 (SN 12)
	30			2,31	
	35			2,64	
	40			3,04	
	45			3,4	
	50			3,76	
	60			4,49	
	70			5,22	
	80			5,94	
	100			7,4	



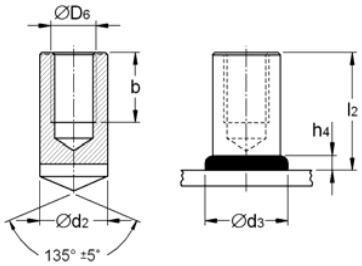
d[1]	L[2]	h[4]1	d[3]1	Peso Kg/100	Cerámica
M 16	30	7	21	4,27	UF 16 (SN 16)
	35			4,81	
	40			5,6	
	45			6,26	
	50			6,93	
	55			7,6	
	60			8,26	
	65			8,93	
	70			9,59	
	75			10,04	
	80			10,93	
	85			11,59	
	90			12,26	
	100			13,59	
M 20	40	7	26	8,8	UF 20 (SN 20)
	45			9,85	
	50			10,67	
	60			12,97	
	65			14,01	
	70			15,05	
	80			17,14	
	90			18,82	
	100			21,3	



ESPÁRRAGO SIN ROSCAR "UD"

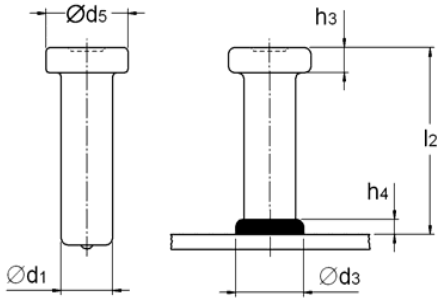
DIN EN ISO 13918

d[1]	L[2]	h[4]1	d[3]1	Peso Kg/100	Cerámica
6	15	4	8,5	0,37	UF 6 (SN 6)
	20			0,48	
	25			0,59	
	30			0,7	
	35			0,81	
	40			0,92	
	50			1,14	
	60			1,37	
8	15	4	11	0,66	UF 8 (SN 8)
	20			0,85	
	25			1,05	
	30			1,25	
	35			1,45	
	40			1,64	
	50			2,04	
	60			2,43	
	80			3,22	
	100			4,01	
10	20	4	13	1,34	UF 10 (SN 10)
	25			1,65	
	30			1,96	
	35			2,27	
	40			2,58	
	50			3,19	
	55			3,26	
	60			3,81	
	70			4,42	
	80			5,04	
	100			6,28	
12	25	5	16	2,39	UF 12 (SN 12)
	30			2,84	
	35			3,28	
	40			3,72	
	45			4,17	
	50			4,61	
	60			5,5	
	70			6,39	
	80			7,27	
	100			9,05	
14,6	≥ 20 ≤ 100	6	18,5		PF 16 (P 16)
16	≥ 20 ≤ 100	7	21		UF 16 (SN 16)



ESPÁRRAGO CON ROSCA INTERIOR MIG (ID)

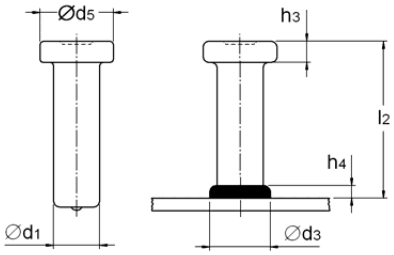
d_6	L^2	d^2	b	$h_4{}^1$	$d_3{}^1$	Peso Kg/100	Cerámica
M 6	15	10	7	4	13	0,79	UF 10 (SN 10)
	20					1,1	
	25		9			1,41	
	30					1,71	
	35					2,02	
	40					2,33	
	50					2,95	
	60					3,56	
M 8	15	12	9,5	5	16	0,98	UF 12 (SN 21)
	20		12			1,43	
	25					1,87	
	30					2,32	
	35					2,76	
	50					4,1	
	60					4,98	
	80					6,76	
	100					8,53	
M 8	22	14,6	12	6	18,5	2,6	PF 16 (P 16)
	25					3	
	30					3,65	
	40					4,97	
M 10	25	16	15	7	21	3,3	UF 16 (SN 16)
	30					4,09	
	35					4,88	
	40					5,66	
	50					7,24	
	55					8,03	
	60					8,82	
	70					10,4	
	80					12	
	100					15,01	
M 12	25	18,38	18	7	23	2,39	PF 20 (SN 12)
	30					2,84	
	35					3,28	
	40					3,72	
	45					4,17	
	50					4,61	
	60					5,5	
	70					6,39	
	80					7,27	
	100					9,05	



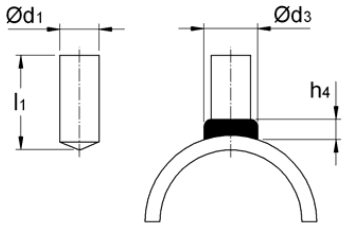
CONECTOR DE ESPIGA "SD"

DIN EN ISO 13918

d_6	L^2	$h_4{}^1$	d_5	$d_3{}^1$	h_3	Peso Kg/100	Cerámica
6	35	2,5	13	8,5	5	1,23	UF 6 (SN 6)
	50					1,56	
	75					2,12	
	100					2,67	
10	30	2,5	19	13	7	3,12	UF 10 (SN 10)
	50					4,36	
	75					590	
	100					7,44	
	125					8,98	
	150					10,52	
	175					12,06	
12	30	3	15	17	8	5,26	PF 12 (P 12)
13	25	3	25	17	8	5,11	UF 13 (SN 13)
	50					7,72	
	75					10,32	
	100					12,93	
	125					15,53	
	150					18,14	
	175					20,74	
	200					23,35	
	225					25,59	
	250					28,56	
	300					33,77	
	350					38,98	
	400					44,19	
16	35	4,5	32	21	8	9,79	PF 16 (SN 16)
	50					12,15	
	75					16,1	
	100					20,04	
	125					23,99	
	150					27,94	
	175					31,88	
	200					35,83	
	225					39,77	
	250					43,72	
	275					47,67	
	300					51,61	
	350					59,5	
	400					67,39	
	525					87,12	

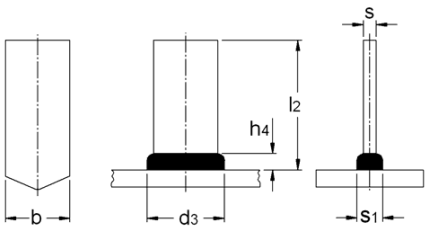


d_6	L^2	$h_4{}^1$	d_5	$d_3{}^1$	h_3	Peso Kg/100	Cerámica
19	50	6	32	23	10	16,11	UF 19 (SN 19)
	60					18,2	
	75					21,67	
	80					22,7	
	90					25,4	
	100					27,23	
	125					32,8	
	150					38,36	
	175					43,93	
	200					49,49	
	225					55,06	
	250					60,62	
	275					66,18	
	300					71,75	
	350					82,88	
	400					94,01	
	525					121,83	
22	50	6	35	29	10	20	UF 22 (SN 22)
	75					28,44	
	90					32,8	
	100					35,9	
	125					43,36	
	150					50,82	
	175					58,28	
	200					65,74	
	225					73,2	
	250					80,66	
	300					95,58	
	350					110,5	
	400					125,42	
	450					140,34	
	525					162,72	
25	75	7	40	31	12	38,04	PF 25 (SN 25)
	100					47,67	
	125					57,31	
	150					66,94	
	175					76,57	
	200					86,21	
	225					95,84	
	250					105,47	
	300					124,74	
	350					144,01	
	400					163,27	
	450					182,54	
	525					211,44	



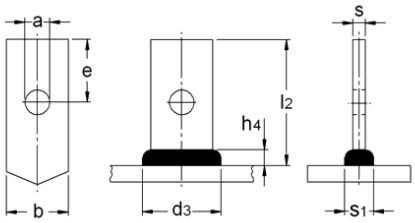
ESPÁRRAGO PARA CALDERAS "KKS"

d^1	L^2	h_4^1	d_3^1	Peso Kg/100	Cerámica
8	14	4	11	1,509	K 8
	20			0,746	
	25			0,943	
	30			1,14	
	40			1,535	
	45			1,732	
	50			1,929	
	60			0,655	
10	12	4	13	0,655	K 10 S
	14			0,778	
	15			0,84	
	16			0,901	
	20			1,148	
	25			1,456	
	30			1,764	
	35			2,073	
	40			2,381	
	45			2,689	



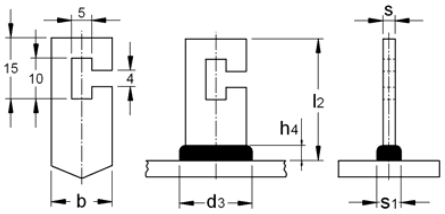
ESPÁRRAGO RECTANGULAR "KFS/A"

b x s	L^2	$h_4{}^1$	$d_3{}^1$	s_1	Peso Kg/100	Cerámica
15 x 3 x	20	4	18	6	0,8	SF 15 x 3
	25				0,98	
	30				1,16	
	35				1,33	
	40				1,51	
	45				1,69	
	50				1,86	
	55				2,04	
	60				3,63	
15 x 5 x	20	4	20	10	1,34	SF 15 x 5
	25				1,63	
	30				1,93	
	35				2,22	
	40				2,52	
	45				2,81	
	50				3,1	
	55				3,4	
	60				6,05	
25 x 3	25	4	28	6	1,68	SF 25 x 3
	30				1,97	
	35				2,27	
	40				2,56	
	45				2,86	
	50				3,15	
	55				3,45	
	60				6,1	



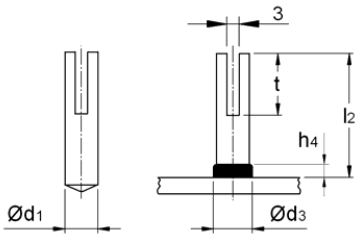
ESPÁRRAGO RECTANGULAR "KFS/B"

b x s	L[2]	h_4[1]	d_3[1]	s_1	a	e	Peso Kg/100	Cerámica
15 x 3 x	20	4	18	6	6	10	0,74	SF 15 x 3
	25					15	0,91	
	30						1,09	
	35						1,27	
	40						1,44	
	45						1,62	
	50						1,8	
	55						2	
	60						3,56	
15 x 5 x	20	4	20	10	8	10	1,14	SF 15 x 5
	25					15	1,44	
	30						1,73	
	35						2,02	
	40						2,32	
	45						2,61	
	50						2,91	
	55						3,2	
	60						5,85	
25 x 3	25	4	28	6	8	15	1,56	SF 25 x 3
	30						1,86	
	35						2,15	
	40						2,45	
	45						2,74	
	50						3,03	
	55						3,33	
	60						5,98	



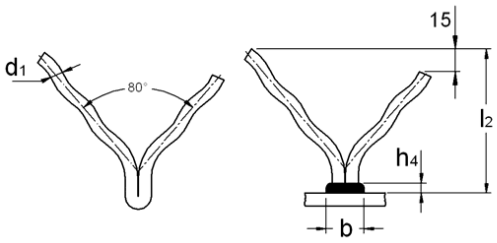
ESPÁRRAGO RECTANGULAR "KFS/C"

b x s	L[2]	h_4[1]	d_3[1]	s_1	Peso Kg/100	Cerámica
15 x 3 x	20	4	18	6	0,73	SF 15 x 3
	30				0,91	
	35				1,09	
	40				1,26	
	45				1,44	
	50				1,62	
	55				1,79	
	60				1,97	
15 x 5 x	25	4	20	10	1,22	SF 15 x 5
	30				1,51	
	35				1,81	
	40				2,1	
	45				2,4	
	50				2,69	
	55				2,99	
	60				3,28	
25 x 3	25	4	28	6	1,36	SF 25 x 3
	30				1,66	
	35				1,95	
	40				2,25	
	45				2,54	
	50				2,83	
	55				3,13	
	60				3,42	



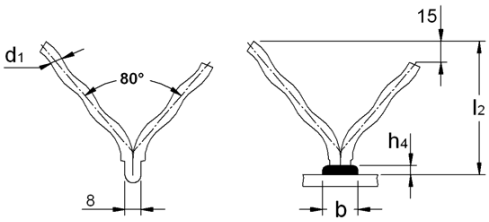
ESPÁRRAGO CON RANURA "KKST"

d[1]	L[2]	t	h[4]1	d[3]1	Peso Kg/100	Cerámica
10	30	15	4	13	1,67	
	40	20			2,18	
	50	30			2,58	
	65	35			3,4	
	70	40			3,6	UF 10
	75				3,91	(SN 10)
	90				4,84	
	100	50			5,24	
	120				6,47	
	250				14,49	



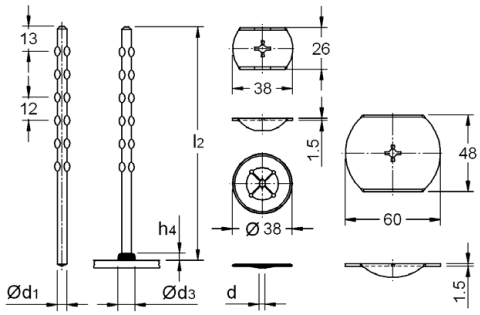
ANCLAJE EN Y "KWA"

d[1]	L[2]	h[4]1	b[1]	Peso Kg/100	Cerámica
6	35	4	14	1,8	
	40			2,1	
	50			2,3	
	55				
	60			2,9	SNW
	75			3,7	
	100			5,1	
	125			6,4	
	250				
8	50	4	18	4	
	75			6,6	SNW/8
	100			9,1	
	120			11,1	



ANCLAJE EN Y REDUCIDO "KWA/R"

d[1]	L[2]	h[4]1	b[1]	Peso Kg/100	Cerámica
6	35	4	11	1,7	SN 8
	40			2	
	45			2,3	
	50			2,1	
	55			2,5	
	60			2,8	
	65			3,2	
	70			3,5	
	75			3,8	
	85				
	100			5,3	
	125			6,6	



ESPÁRRAGO FASERFIX "KFF"

d[1]	L[2]	h_4[1]	d_3[1]	Peso Kg/100	Cerámica
5	75	3,5	8	1,2	SN 5
	100			1,5	
	125			1,9	
	150			2,3	
	175			2,7	
	200			3,1	
	225			3,5	
	250			3,9	
	275			4,3	
	300			4,6	