

Rigid couplings provide a rigid connection of grooved pipes and/or grooved fittings. The coupling has been designed to achieve angular and axial stiffness by firmly clamping in the groove base. Small internal dents give an anti-torsional resistance and the standard spigot and socket design assures an easy installation and full gasket protection.

Reference			Nominal size		Pipe Ø O.D.	Rigid coupling dimensions				Bolt size	Socket wrench	Torque	Weight	Marking
Red	Galva	White	NPS inch	DN mm	mm	Ø mm	L mm	H mm	C mm	d1xL	mm	Nm	kg	
GKSR	GKSG	GKSW	1	25	33,7	55,0	97,0	45	73	M10x40	15	44-54	0,45	GKS
GKSR	GKSG	GKSW	1¼	32	42,4	63,5	107,5	45	84	M10x50	15	44-54	0,50	GKS
GKSR	GKSG	GKSW	1½	40	48,3	69,0	114,0	45	90	M10x50	15	44-54	0,53	GKS
GKSR	GKSG	GKSW	2	50	60,3	83,6	124,0	46	102	M10x60	15	44-54	0,67	GKS
GKSR	GKSG	GKSW	2½	65	73,0	98,0	137,0	46	115	M10x60	15	44-54	0,80	GKS
GKSR	GKSG	GKSW	2½	65	76,1	98,0	139,0	46	115	M10x60	15	44-54	0,79	GKS
GKSR	GKSG	GKSW	3	80	88,9	114,0	156,0	46	132	M10x60	15	44-54	0,95	GKS
GKSR	GKSG	GKSW	4	100	108,0	138,0	186,0	50	160	M12x70	18	90-100	1,40 <sup>2)</sup>	GKS
GKSR	GKSG	GKSW	4	100	114,3	142,0	189,0	50	162	M12x70	18	90-100	1,42	GKS
GKSR	GKSG	GKSW	5	125	133,0	164,0	213,0	50	185	M12x70	18	90-100	1,85 <sup>1)</sup>	GKS
GKSR	GKSG	GKSW	5	125	139,7	170,0	222,0	50	192	M12x70	18	90-100	1,78	GKS
GKSR	GKSG	GKSW	5	125	141,3	170,0	218,0	50	190	M12x70	18	90-100	1,96	GKS
GKSR	GKSG	GKSW	6	150	165,1	196,0	244,0	50	216	M12x75	18	90-100	2,03	GKS
GKSR	GKSG	GKSW	6	150	168,3	198,0	251,0	50	222	M12x75	18	90-100	2,11	GKS
GKSR	GKSG	GKSW	8	200	216,3	254,0	340,0	60	294	M20x90	30	270-300	4,86 <sup>3)</sup>	GKS
GKSR	GKSG	GKSW	8	200	219,1	256,0	316,0	60	282	M16x85	24	200-230	3,90	GKS
GKSR	GKSG	GKSW	10	250	267,4	313,0	400,0	64	352	M20x90	30	270-300	6,78 <sup>3)</sup>	GKS
GKSR	GKSG	GKSW	10	250	273,0	319,0	393,0	64	352	M20x100	30	270-300	6,18	GKS
GKSR	GKSG	GKSW	12	300	318,5	368,0	464,0	65	416	M22x110	34	370-410	9,20 <sup>3)</sup>	GKS
GKSR	GKSG	GKSW	12	300	323,9	374,0	453,0	65	410	M20x130	30	270-300	8,56	GKS

General notes:

- <sup>1)</sup> No FM-approval / <sup>2)</sup> No UL-approval / <sup>3)</sup> No FM- and UL-approval.
- Pressure ratings listed are CWP (cold working pressure) or MWP (maximum working pressure) at a maximum service temperature of 50°C. This rating may occasionally differ from maximum working pressure listed and/or approved by UL and/or FM, as testing conditions and test pipes differ. For more information, please contact info@pipinglogistics.eu.
- Maximum working pressure listed is the total of internal and external pressures, based on standard weight (ANSI) steel pipe and standard roll or cut groove, in accordance with Profit specifications. For more information, please contact info@pipinglogistics.eu.
- For one time field test only, the maximum joint working pressure may be increased by 150% the figure shown.
- Warning: Piping systems must always be depressurized and drained before attempting disassembly and/or removal of any components.
- Profit reserves the right to change specifications, designs and/or standard equipment without notice and without incurring in any obligations.
- Profit red coated products are intended for piping with indoor application (EN 12944-2 corrosivity category C1 & C2). For outdoor installations near the sea (corrosivity category C3) we advise the use of our hot dip galvanized couplings and fittings. For application in corrosivity category C4 (higher salinity climate) or higher, please contact info@pipinglogistics.eu.
- We advise to always store our products in closed and dry environments.
- Independent technical datasheet for bolts and nuts and rubber gaskets.

## Material specifications

**Housing:** ductile iron conform to ASTM A536 GR 65-45-12

**Coating:**

- Hot dip galvanized
- Red paint coating RAL 3000, EPD Epoxy coating
- White powder coating RAL 9010

**Bolts and nuts:** medium carbon steel, zinc electroplated, quenched and tempered

**Rubber gasket:** EPDM gaskets dispose of the international certifications and have undergone the aging test at 110C/230°F for a period of 45 days/1080 hours and the freezing test at -40°C/-40°F for a period of 4 days/96 hours.

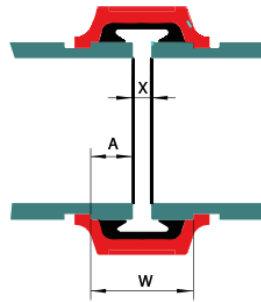
## Working pressure

300 PSI/2068 kPa/20,7 barg

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- For one time field test only, the maximum joint working pressure may be increased one and a half times the figure shown.
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# GROOVED RIGID COUPLING GKS



Reference			Nominal size		Pipe Ø O.D.	W	A mm			X mm	
Red	Galva	White	NPS inch	DN mm	mm	mm	basic	max.	min.	max.	min.
GKSR	GKSG	GKSW	1	25	33,7	34	15,9	16,6	15,1	3,2	0
GKSR	GKSG	GKSW	1¼	32	42,4	34	15,9	16,6	15,1	3,2	0
GKSR	GKSG	GKSW	1½	40	48,3	34	15,9	16,6	15,1	3,2	0
GKSR	GKSG	GKSW	2	50	60,3	35	15,9	16,6	15,1	4,2	0
GKSR	GKSG	GKSW	2½	65	98,0	35	15,9	16,6	15,1	4,2	0
GKSR	GKSG	GKSW	2½	65	76,1	35	15,9	16,6	15,1	4,2	0
GKSR	GKSG	GKSW	3	80	88,9	35	15,9	16,6	15,1	4,2	0
GKSR	GKSG	GKSW	4	100	108,0	36	15,9	16,6	15,1	5,2	0
GKSR	GKSG	GKSW	4	100	114,3	36	15,9	16,6	15,1	5,2	0
GKSR	GKSG	GKSW	5	125	133,0	37	15,9	16,6	15,1	5,2	0
GKSR	GKSG	GKSW	5	125	139,7	37	15,9	16,6	15,1	5,2	0
GKSR	GKSG	GKSW	5	125	141,3	37	15,9	16,6	15,1	5,2	0
GKSR	GKSG	GKSW	6	150	165,0	38	15,9	16,6	15,1	5,2	0
GKSR	GKSG	GKSW	6	150	168,3	38	15,9	16,6	15,1	5,2	0
GKSR	GKSG	GKSW	8	200	216,3	44	19,1	19,8	18,3	5,8	0
GKSR	GKSG	GKSW	8	200	219,1	44	19,1	19,8	18,3	5,8	0
GKSR	GKSG	GKSW	10	250	267,4	47	19,1	19,8	18,3	5,8	0
GKSR	GKSG	GKSW	10	250	273,0	47	19,1	19,8	18,3	8,8	0
GKSR	GKSG	GKSW	12	300	318,5	48	19,1	19,8	18,3	9,8	0
GKSR	GKSG	GKSW	12	300	323,9	48	19,1	19,8	18,3	9,8	0

**THE ACTUAL GAP BETWEEN PIPES MAY CHANGE ACCORDING TO THE ACTUAL CUT AND ROLL GROOVE**

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## MINIMUM PIPE WALL THICKNESS

Allowable minimum pipe wall thickness combinations with PROFIT - couplings GKS and GKF and rolled grooves.

Nominal pipe size		Minimum thickness T* (Not FM approved) MPW = 12 barg	Minimum thickness T** MWP = 20,7 Barg	Minimum thickness T*** Only combined with FM-approved pipes	
NPS (DN)		mm	mm	Thickness (mm)	MWP (Barg)
1	25	1,65	2,77	1,6	12
1¼	32	1,65	2,77	1,6	12
1½	40	1,65	2,77	1,6	12
2	50	1,65	2,77	1,6	12
2½	65	2,11	3,05	1,8	12
3	80	2,11	3,05	2,36	20,7
4	100	2,11	3,05	2,49	20,7
5	125	2,77	3,40	-	-
6	150	2,77	3,40	2,98	12
8	200	2,77	4,00	-	-
10	250	3,40	5,00	-	-
12	300	3,96	6,70	-	-

T\* According to standard AWWA C606-2006 (Pipes Sch5-ASME B36.10)

T\*\* For FM-application when couplings are combined with pipes with wall thickness bigger than the minimum thickness according to FM Property Loss Prevention datasheet 2-0.

T\*\*\* For FM-application only when combination of coupling and pipe are FM-listed.

MWP= maximum working pressure

For installations within Europe (EC) please note that the minimum pipe thickness in fire sprinkler piping should be according to standard EN 12845.