



Y. N.

STATUS OF ISO & CLASS TYPE APPROVAL

"ISO 9001" APPROVED BY LLOYD(LRQA)

- YN IS THE FIRST COMPANY WHO ACQUIRED ISO 9001 BY LRQA IN PIPE COUPLING MANUFACTURERS
- TYPE APPROVAL ACQUIRED BY 10 CLASS SOCIETIES
- APPROVAL BY WRC UK
- APPROVAL BY JWWA JAPAN

TYPE APPROVAL CERTIFICATES FOR YN COUPLINGS



(L.R)



(ABS)



(KR)



(GL)



(BV)



(RINA)



(MRS)



(CCS)



(NKK)



(DNV)

WATER WORKS CERTIFICATES



(WRC)



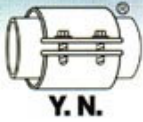
(JWWA)

REVOLUTION OF PIPING CONNECTIONS BY PIPE COUPLINGS!!

TECHNOLOGICAL REVOLUTION IN PIPE COUPLINGS FOR NEW INSTALLATION & REPAIR OF HOLED PARTS!

1. SHORTENING OF WORK TIME
2. ULTIMATE ECONOMIC EFFECT BY SAVING OF RAW MATERIAL
3. EASY APPLICATION FOR NEW INSTALLATION & REPAIR
4. DURABLE LIFE SPAN

***"Brings you a revolution in piping technology
for various industries hereafter"***



COUPLING FOR NEW INSTALLATION & REPAIR OF PIPELINES



MODEL 1 : GR-S
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MODEL 2 : GR-L
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MODEL 3 : MF-RS
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MODEL 4 : MF-RL
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MODEL 5 : RCH-S
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MODEL 6 : RCH-L
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MODEL 7 : RCD-S
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MODEL 8 : RCD-L
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MODEL 9 : RC-S
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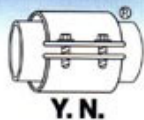


MODEL 10 : RC-L
Page : 9

NAME OF PARTS



No	Name of Component	Name of Component	No	Name of Component	Name of Component
1	CASING	SUS : 304	3	SLIDE PLATE	SUS : 304
2	RUBBER SLEEVE	EPDM	4	BAR WASHER	SUS : 304
		NBR	5	BAR NUT	SUS : 304
		SILICONE	6	BOLT	SUS : 304
		VITON	7	GRIP RING	SUS : 304-H, SUS : 301-H
			8	INSERT PLATE	SUS : 304, PE



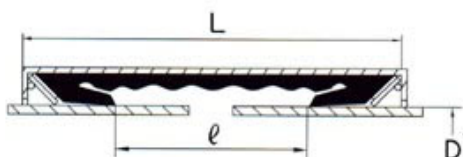
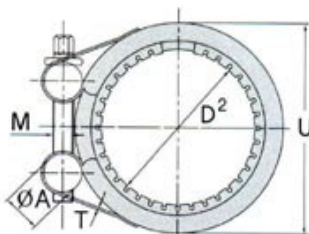
GRIP RING COUPLING

Technical Data for New Installation



MODEL 1 : GR-S
(GRIP RING STANDARD)

MODEL 2 : GR-L
(GRIP RING LONG)



GR-S

※PIPE OD SPECIFICATION BY KS/JIS

MODEL/N.D	D ¹ (O.D)	D ² (RANGE)	M	ØA	L	ℓ	T	U	W.P	W	P Nm(Kgf·cm)
GR-S 20 A	27.2	26-28	M8×40L×2BOLTS	12	57	21	1.0	47	30	0.26	5-8(50-80)
- 25 A	34.0	33-35	M8×45L×2BOLTS	12	57	22	1.2	64	30	0.28	10-15(100-150)
- 32 A	42.7	42-44	M8×45L×2BOLTS	12	57	22	1.2	64	30	0.38	10-15(100-150)
- 40 A	48.6	47-49	M10×60L×2BOLTS	16	81	32	1.5	84	24	0.40	15-20(150-200)
- 50 A	60.5	59-62	M10×60L×2BOLTS	16	81	32	1.5	84	24	0.85	15-20(150-200)
- 65 A	76.3	75-78	M12×70L×2BOLTS	18	108	50	2.0	117	20	0.90	40-50(400-500)
- 80 A	89.1	88-92	M12×70L×2BOLTS	18	108	50	2.0	117	20	1.70	40-50(400-500)
- 100 A	114.3	113-117	M14×90L×2BOLTS	22	121	55	3.5	142	18	1.90	90-100(900-1000)
- 125 A	139.8	138-142	M14×90L×2BOLTS	22	121	55	3.5	176	18	3.86	90-100(900-1000)
- 150 A	165.2	163-167	M18×130L×2BOLTS	30	159	72	4.5	201	14	4.40	170-190(1700-1900)
- 200 A	216.3	214-219	M18×130L×2BOLTS	30	159	72	4.5	256	14	9.05	170-190(1700-1900)
- 250 A	267.4	265-270	M18×140L×2BOLTS	32	155	70	3.0	300	12	7.4	120-150(1200-1500)
- 300 A	318.5	316-321	M18×140L×2BOLTS	32	155	70	3.0	350	12	9.4	120-150(1200-1500)
- 350 A	355.6	353-358	M18×140L×2BOLTS	32	155	70	3.0	400	12	10.2	120-150(1200-1500)

GR-L

MODEL/N.D	D ¹ (O.D)	D ² (RANGE)	M	ØA	L	ℓ	T	U	W.P	W	P Nm(Kgf·cm)
GR-L 25 A	34.0	33-35	M8×45L×3BOLTS	12	100	63	0.8	51	30	0.4	5-8(50-80)
- 32 A	42.7	42-44	M8×45L×3BOLTS	12	100	63	1.0	62	-	0.5	10-15(100-150)
- 40 A	48.6	47-49	M10×60L×3BOLTS	16	139	85	1.2	66	-	1.2	15-20(150-200)
- 50 A	60.5	59-62	M10×60L×3BOLTS	16	139	85	1.2	81	24	1.2	15-20(150-200)
- 65 A	76.3	75-78	M12×70L×3BOLTS	18	203	125	1.5	100	-	1.3	40-50(400-500)
- 80 A	89.1	88-92	M12×70L×3BOLTS	18	203	125	1.5	115	20	2.1	40-50(400-500)
- 100 A	114.3	113-117	M14×90L×3BOLTS	22	204	130	2.0	144	-	2.9	90-100(900-1000)
- 125 A	139.8	138-142	M14×90L×3BOLTS	22	204	130	2.0	175	18	4.1	90-100(900-1000)
- 150 A	165.2	163-167	M16×120L×3BOLTS	30	255	161	2.5	196	-	5.4	170-190(1700-1900)
- 200 A	216.3	214-219	M16×120L×3BOLTS	30	255	161	2.5	260	14	10.8	170-190(1700-1900)
- 250 A	267.4	265-270	M18×140L×3BOLTS	32	255	161	3.0	300	-	10.9	120-150(1200-1500)
- 300 A	318.5	316-321	M18×140L×3BOLTS	32	255	161	3.0	350	12	15.6	120-150(1200-1500)
- 350 A	355.6	353-358	M18×140L×3BOLTS	32	255	161	3.0	400	-	16.0	120-150(1200-1500)

N.D : Nominal Diameter(A)

D¹ : Pipe outside Diameter by KS/JIS(m/m)

D² : Pipe Min-Max Range(m/m)

M : Tightening bolt SUS 304 or SCM 435(m/m)

ØA : Diameter of SUS 304 or S45C bar and barnut(m/m)

L : Length of Coupling(m/m)

ℓ : Sealing sleeve lip's distance(m/m)

T : Thickness of SUS 304 Coupling case(m/m)

U : Coupling outside diameter(m/m)

W.P : Maximum working pressure(kg/arf)

W : Weight per each set

P : Standard torque(Kgf·cm)



Y. N.

MULTI-FLEX COUPLING



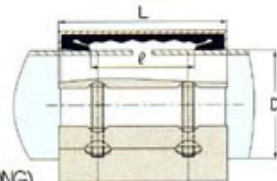
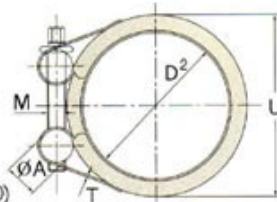
Technical Data for New Installation



MODEL 3: MF-RS
(MULTI-FLEX ROUND STANDARD)



MODEL 4: MF-RL
(MULTI-FLEX ROUND LONG)



MF-RS

※PIPE OD SPECIFICATION BY KS/JIS

MODEL/N.D	D¹ (O.D.)	D² (RANGE)	M	ØA	L	ℓ	T	U	W.P	W	P N.m(kgf.cm)
MF-RS 15 A	21.7	21-23	M6×40L×2BOLTS	10	57	33	0.8	37	20	0.16	5-8(50-80)
- 20 A	27.2	26-28	-	-	-	-	-	46	-	0.2	-
- 25 A	34.0	33-35	-	-	-	-	-	51	-	-	-
- 32 A	42.7	42-44	M8×45L×2BOLTS	12	57	33	1.0	62	20	0.3	5-10(50-100)
- 40 A	48.6	47-49	-	-	-	-	-	66	-	0.4	-
- 50 A	60.5	59-62	M10×60L×2BOLTS	16	80	46	1.5	81	18	0.8	10-15(100-150)
- 65 A	76.3	75-78	-	-	-	-	-	100	-	0.9	-
- 80 A	89.1	88-92	M12×70L×2BOLTS	18	107	65	2.0	115	16	1.7	15-20(150-200)
- 100 A	114.3	113-117	-	-	-	-	-	144	-	2.0	-
- 125 A	139.8	138-142	M14×90L×2BOLTS	22	116	71	2.0	175	14	2.5	25-30(250-300)
- 150 A	165.2	163-167	-	-	-	-	-	196	-	2.9	-
- 200 A	216.3	214-219	M16×120L×2BOLTS	30	155	80	2.5	260	12	6.2	40-80(400-800)
- 250 A	267.4	265-270	-	-	-	-	-	300	-	7.2	-
- 300 A	318.5	316-321	M18×140L×2BOLTS	32	155	80	3.0	350	10	8.5	80-120(800-1200)
- 350 A	355.6	353-358	-	-	-	-	-	400	-	10.2	-
- 400 A	406.4	403-408	M18×150L×2BOLTS	32	155	100	3.0	450	8	11.3	80-120(800-1200)
- 450 A	457.2	455-461	-	-	-	-	-	500	-	12.1	-
- 500 A	508.0	505-512	M18×165L×2BOLTS	-	-	-	-	550	7	13.2	120-150(1200-1500)

MF-RL

MODEL/N.D	D¹ (O.D.)	D² (RANGE)	M	ØA	L	ℓ	T	U	W.P	W	P N.m(kgf.cm)
MF-RL 25 A	34.0	33-35	M8×45L×3BOLTS	12	100	70	0.8	51	20	0.4	5-8(50-80)
- 32 A	42.7	42-44	M8×45L×3BOLTS	12	100	70	1.0	62	20	0.5	5-10(50-100)
- 40 A	48.6	47-49	-	-	-	-	-	66	-	-	-
- 50 A	60.5	59-62	M10×60L×3BOLTS	16	139	99	1.2	81	18	1.2	10-15(100-150)
- 65 A	76.3	75-78	-	-	-	-	-	100	-	1.3	-
- 80 A	89.1	88-92	M12×70L×3BOLTS	18	203	150	1.5	115	16	2.7	15-20(150-200)
- 100 A	114.3	113-117	-	-	-	-	-	144	-	3.1	-
- 125 A	139.8	138-142	M14×90L×3BOLTS	22	204	138	2.0	175	14	4.8	25-30(250-300)
- 150 A	165.2	163-167	-	-	-	-	-	196	-	5.6	-
- 200 A	216.3	214-219	M16×120L×3BOLTS	30	255	180	2.5	260	12	10.7	40-80(400-800)
- 250 A	267.4	265-270	-	-	-	-	-	300	-	-	-
- 300 A	318.5	316-321	M18×140L×3BOLTS	32	255	180	3.0	350	10	14.9	80-120(800-1200)
- 350 A	355.6	353-358	-	-	-	-	-	400	-	15.2	-
- 400 A	406.4	403-408	M18×150L×3BOLTS	32	255	170	3.0	450	8	17.6	80-120(800-1200)
- 450 A	457.2	455-461	-	-	-	-	-	500	-	18.2	-
- 500 A	508.0	505-512	M18×165L×3BOLTS	-	-	-	-	550	7	21.5	120-150(1200-1500)

N.D: Nominal Diameter(A)

D¹: Pipe outside Diameter by KS/JIS(m/m)

D²: Pipe Min-Max Range(m/m)

M: Tightening bolt SUS 304 or SCM 435(m/m)

ØA: Diameter of SUS 304 or S45C bar and barnut(m/m)

L: Length of Coupling(m/m)

ℓ: Sealing sleeve lip's distance(m/m)

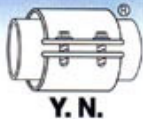
T: Thickness of SUS 304 Coupling case(m/m)

U: Coupling outside diameter(m/m)

W.P: Maximum working pressure(kg/cm²)

W: Weight per each set

P: Standard torque(kgf.cm)



REPAIR CLAMP HINGE COUPLING



Technical Data of Hinge Type Clamp

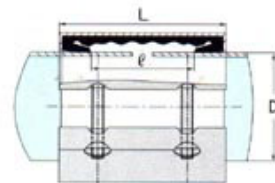
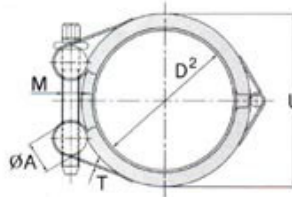
(For New Installation & Repair)



MODEL 5 : RCH-S
(REPAIR CLAMP HINGE STANDARD)



MODEL 6 : RCH-L
(REPAIR CLAMP HINGE LONG)



RCH-S

※PIPE OD SPECIFICATION BY KS/JIS

MODEL / N.D	D ¹ (O.D.)	D ² (RANGE)	M	ØA	L	ℓ	T	U	W.P	W	P Nm(kgf·cm)
RCH-S 20 A	27.2	26-28	M6×50L×2BOLTS	10	57	33	0.8	46	18	0.2	3-5(30-50)
- 25 A	34.0	33-35	"	"	"	"	"	51	"	"	"
- 32 A	42.7	42-44	M8×55L×2BOLTS	12	57	33	1.0	62	18	0.35	4-6(40-60)
- 40 A	48.6	47-49	"	"	"	"	"	66	"	"	"
- 50 A	60.5	59-62	M10×70L×2BOLTS	16	80	46	1.2	81	16	0.8	8-10(80-100)
- 65 A	76.3	75-78	"	"	"	"	"	100	"	0.86	"
- 80 A	89.1	88-92	M12×85L×2BOLTS	18	107	65	1.5	115	14	1.6	12-15(120-150)
- 100 A	114.3	113-117	"	"	"	"	"	144	"	1.8	"
- 125 A	139.8	138-142	M14×115L×2BOLTS	22	116	71	2.0	175	12	3.0	20-25(200-250)
- 150 A	165.2	163-167	"	"	"	"	"	196	"	3.2	"
- 200 A	216.3	214-219	M16×150L×2BOLTS	30	155	80	2.5	260	10	7.0	25-30(250-300)
- 250 A	267.4	265-270	"	"	"	"	"	300	"	7.9	"
- 300 A	318.5	316-321	M18×150L×2BOLTS	32	155	80	3.0	350	8	9.0	40-80(400-800)
- 350 A	355.6	353-358	"	"	"	"	"	400	"	11.0	"
- 400 A	406.4	403-408	M18×165L×2BOLTS	32	155	100	3.0	450	7	12.3	80-100(800-1000)
- 450 A	457.2	455-461	"	"	"	"	"	500	"	13.0	"
- 500 A	508.0	505-512	"	"	"	"	"	550	6	14.1	100-120(1000-1200)

RCH-L

MODEL / N.D	D ¹ (O.D.)	D ² (RANGE)	M	ØA	L	ℓ	T	U	W.P	W	P Nm(kgf·cm)
RCH-L 25 A	34.0	33-35	M8×55L×3BOLTS	12	100	70	0.8	51	18	0.4	3-5(30-50)
- 32 A	42.7	42-44	M8×55L×3BOLTS	12	100	70	1.0	62	18	0.5	4-6(40-60)
- 40 A	48.6	47-49	"	"	"	"	"	66	"	0.6	"
- 50 A	60.5	59-62	M10×70L×3BOLTS	16	139	99	1.2	81	16	1.4	8-10(80-100)
- 65 A	76.3	75-78	"	"	"	"	"	100	"	1.5	"
- 80 A	89.1	88-92	M12×85L×3BOLTS	18	203	150	1.5	115	14	3.1	12-15(120-150)
- 100 A	114.3	113-117	"	"	"	"	"	144	"	3.4	"
- 125 A	139.8	138-142	M14×115L×3BOLTS	22	204	138	2.0	175	12	4.7	20-25(200-250)
- 150 A	165.2	163-167	"	"	"	"	"	196	"	5.9	"
- 200 A	216.3	214-219	M16×150L×3BOLTS	30	255	180	2.5	260	10	12.2	25-30(250-300)
- 250 A	267.4	265-270	"	"	"	"	"	300	"	13.5	"
- 300 A	318.5	316-321	M18×150L×3BOLTS	32	255	180	3.0	350	8	16.3	40-80(400-800)
- 350 A	355.6	353-358	"	"	"	"	"	400	"	18.6	"
- 400 A	406.4	403-408	M18×165L×3BOLTS	32	255	170	3.0	450	7	20.4	80-100(800-1000)
- 450 A	457.2	455-461	"	"	"	"	"	500	"	21.6	"
- 500 A	508.0	505-512	"	"	"	"	"	550	6	23.8	100-120(1000-1200)

N.D : Nominal Diameter(A)

D¹ : Pipe outside Diameter by KS/JIS(m/m)

D² : Pipe Min-Max Range(m/m)

M : Tightening bolt SUS 304 or SCM 435(m/m)

ØA : Diameter of SUS 304 or S45C bar and barnut(m/m)

L : Length of Coupling(m/m)

ℓ : Sealing sleeve lip's distance(m/m)

T : Thickness of SUS 304 Coupling case(m/m)

U : Coupling outside diameter(m/m)

W.P : Maximum working pressure(kg/cm²)

W : Weight per each set

P : Standard torque(Kgf·cm)



Y. N.

REPAIR CLAMP DOUBLE LOCK COUPLING



Technical Data of Double Lock Type Coupling

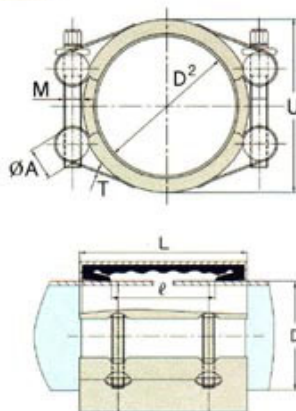
(Upper & Lower Part Type)



MODEL 7 : RCD-S
(REPAIR CLAMP DOUBLE LOCK STANDARD)



MODEL 8 : RCD-L
(REPAIR CLAMP DOUBLE LOCK LONG)



RCD-S

*PIPE OD SPECIFICATION BY KS/JIS

MODEL/ND	D ₁ (O.D.)	D ₂ (RANGE)	M	ØA	L	ℓ	T	U	W.P	W	P Nm(kgf·cm)
RCD-S 20 A	27.2	26-28	M6×35L×4BOLTS	10	57	33	0.8	46	20	0.3	5-8(50-80)
• 25 A	34.0	33-35	•	•	•	•	•	51	•	•	•
• 32 A	42.7	42-44	M8×45L×4BOLTS	12	57	33	1.0	62	20	0.5	8-12(80-120)
• 40 A	48.6	47-49	•	•	•	•	•	66	•	0.6	•
• 50 A	60.5	59-62	M10×55L×4BOLTS	16	80	46	1.2	81	18	1.1	10-15(100-150)
• 65 A	76.3	75-78	•	•	•	•	•	100	•	•	•
• 80 A	89.1	88-92	M12×60L×4BOLTS	18	107	65	1.5	115	16	2.1	15-20(150-200)
• 100 A	114.3	113-117	•	•	•	•	•	144	•	2.3	•
• 125 A	139.8	138-142	M14×70L×4BOLTS	22	116	71	2.0	175	14	3.7	25-30(250-300)
• 150 A	165.2	163-167	•	•	•	•	•	196	•	4.0	•
• 200 A	216.3	214-219	M16×110L×4BOLTS	30	155	80	2.5	260	12	8.8	40-60(400-800)
• 250 A	267.4	265-270	•	•	•	•	•	300	•	9.7	•
• 300 A	318.5	316-321	M18×130L×4BOLTS	32	155	80	3.0	350	10	12.0	80-120(800-1200)
• 350 A	355.6	353-358	•	•	•	•	•	400	•	13.0	•
• 400 A	406.4	403-408	M18×140L×4BOLTS	32	155	100	3.0	450	8	14.3	80-120(800-1200)
• 450 A	457.2	455-461	•	•	•	•	•	500	•	15.0	•
• 500 A	508.0	505-512	M18×150L×4BOLTS	•	•	•	•	550	7	16.0	120-150(1200-1500)

RCD-L

MODEL/ND	D ₁ (O.D.)	D ₂ (RANGE)	M	ØA	L	ℓ	T	U	W.P	W	P Nm(kgf·cm)
RCD-L 25 A	34.0	33-35	M8×45L×6BOLTS	12	100	70	0.8	51	20	0.6	5-8(50-80)
• 32 A	42.7	42-44	M8×45L×6BOLTS	12	100	70	1.0	62	20	0.7	8-12(80-120)
• 40 A	48.6	47-49	•	•	•	•	•	66	•	0.8	•
• 50 A	60.5	59-62	M10×55L×6BOLTS	16	139	99	1.2	81	18	1.9	10-15(100-150)
• 65 A	76.3	75-78	•	•	•	•	•	100	•	2.1	•
• 80 A	89.1	88-92	M12×60L×6BOLTS	18	203	150	1.5	115	16	4.0	15-20(150-200)
• 100 A	114.3	113-117	•	•	•	•	•	144	•	4.4	•
• 125 A	139.8	138-142	M14×70L×6BOLTS	22	204	138	2.0	175	14	6.0	25-30(250-300)
• 150 A	165.2	163-167	•	•	•	•	•	196	•	6.4	•
• 200 A	216.3	214-219	M16×110L×6BOLTS	30	255	180	2.5	260	12	12.0	40-60(400-800)
• 250 A	267.4	265-270	•	•	•	•	•	300	•	14.8	•
• 300 A	318.5	316-321	M18×130L×6BOLTS	32	255	180	3.0	350	10	19.2	80-120(800-1200)
• 350 A	355.6	353-358	•	•	•	•	•	400	•	22.0	•
• 400 A	406.4	403-408	M18×140L×6BOLTS	32	255	170	3.0	450	8	24.0	80-120(800-1200)
• 450 A	457.2	455-461	•	•	•	•	•	500	•	25.8	•
• 500 A	508.0	505-512	M18×150L×6BOLTS	•	•	•	•	550	7	27.0	120-150(1200-1500)

N.D : Nominal Diameter(A)

D₁ : Pipe outside Diameter by KS/JIS(m/m)

D₂ : Pipe Min-Max Range(m/m)

M : Tightening bolt SUS 304 or SCM 435(m/m)

ØA : Diameter of SUS 304 or S45C bar and barnut(m/m)

L : Length of Coupling(m/m)

ℓ : Sealing sleeve lip's distance(m/m)

T : Thickness of SUS 304 Coupling case(m/m)

U : Coupling outside diameter(m/m)

W.P : Maximum working pressure(kg/cm²)

W : Weight per each set

P : Standard torque(Nm)



REPAIR CLAMP SPREAD-OPENING COUPLING

Technical Data of Spread-Opening Type Clamp

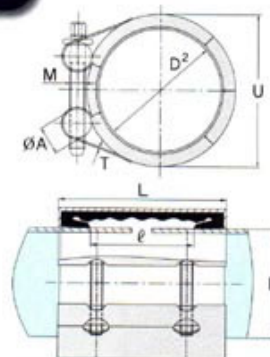
(For New Installation & Repair)



MODEL 9 : RC-S
(REPAIR CLAMP-STANDARD)



MODEL 10 : RC-L
(REPAIR CLAMP-LONG)



RC-S

*PIPE OD SPECIFICATION BY KS/JIS

MODEL/N.D	D ₁ (O.D.)	D ₂ (RANGE)	M	ØA	L	ℓ	T	U	W.P	W	P Nm(kgf.cm)
RC-S 15 A	21.7	21-23	M6×50L×2BOLTS	10	57	33	0.8	37	20	0.16	5-8(50-80)
• 20 A	27.2	26-28	"	"	"	"	"	46	"	0.2	"
• 25 A	34.0	33-35	"	"	"	"	"	51	"	"	"
• 32 A	42.7	42-44	M8×55L×2BOLTS	12	57	33	1.0	62	20	0.3	8-12(80-120)
• 40 A	48.6	47-49	"	"	"	"	"	66	"	0.32	"
• 50 A	60.5	59-62	M10×70L×2BOLTS	16	80	46	1.2	81	18	0.7	10-15(100-150)
• 65 A	76.3	75-78	"	"	"	"	"	100	"	0.73	"
• 80 A	89.1	88-92	M12×85L×2BOLTS	18	107	65	1.5	115	16	1.4	15-20(150-200)
• 100 A	114.3	113-117	"	"	"	"	"	144	"	1.6	"
• 125 A	139.8	138-142	M14×115L×2BOLTS	22	116	71	2.0	175	14	2.5	25-30(250-300)
• 150 A	165.2	163-167	"	"	"	"	"	196	"	2.9	"
• 200 A	216.3	214-219	M16×150L×2BOLTS	30	155	80	2.5	260	12	6.2	40-80(400-800)
• 250 A	267.4	265-270	"	"	"	"	"	300	"	7.2	"
• 300 A	318.5	316-321	M18×150L×2BOLTS	32	155	80	3.0	350	10	8.5	80-120(800-1200)
• 350 A	355.6	353-358	"	"	"	"	"	400	"	10.2	"
• 400 A	406.4	403-408	M18×165L×2BOLTS	32	155	100	3.0	450	8	11.3	80-120(800-1200)
• 450 A	457.2	455-461	"	"	"	"	"	500	"	12.1	"
• 500 A	508.0	505-512	"	"	"	"	"	550	7	13.2	120-150(1200-1500)

RC-L

MODEL/N.D	D ₁ (O.D.)	D ₂ (RANGE)	M	ØA	L	ℓ	T	U	W.P	W	P Nm(kgf.cm)
RC-L 25 A	34.0	33-35	M8×55L×3BOLTS	12	100	70	0.8	51	20	0.4	5-8(50-80)
• 32 A	42.7	42-44	M8×55L×3BOLTS	12	100	70	1.0	62	20	0.5	8-12(80-120)
• 40 A	48.6	47-49	"	"	"	"	"	66	"	"	"
• 50 A	60.5	59-62	M10×70L×3BOLTS	16	139	99	1.2	81	18	1.2	10-15(100-150)
• 65 A	76.3	75-78	"	"	"	"	"	100	"	1.3	"
• 80 A	89.1	88-92	M12×85L×3BOLTS	18	203	150	1.5	115	16	2.7	15-20(150-200)
• 100 A	114.3	113-117	"	"	"	"	"	144	"	3.1	"
• 125 A	139.8	138-142	M14×115L×3BOLTS	22	204	138	2.0	175	14	4.8	25-30(250-300)
• 150 A	165.2	163-167	"	"	"	"	"	196	"	5.6	"
• 200 A	216.3	214-219	M16×150L×3BOLTS	30	255	180	2.5	260	12	10.7	40-80(400-800)
• 250 A	267.4	265-270	"	"	"	"	"	300	"	"	"
• 300 A	318.5	316-321	M18×150L×3BOLTS	32	255	180	3.0	350	10	14.9	80-120(800-1200)
• 350 A	355.6	353-358	"	"	"	"	"	400	"	15.2	"
• 400 A	406.4	403-408	M18×165L×3BOLTS	32	255	170	3.0	450	8	17.6	80-120(800-1200)
• 450 A	457.2	455-461	"	"	"	"	"	500	"	18.2	"
• 500 A	508.0	505-512	"	"	"	"	"	550	7	21.5	120-150(1200-1500)

N.D : Nominal Diameter(A)

D₁ : Pipe outside Diameter by KS/JIS(m/m)

D₂ : Pipe Min-Max Range(m/m)

M : Tightening bolt SUS 304 or SCM 435(m/m)

ØA : Diameter of SUS 304 or S45C bar and barnut(m/m)

ℓ : Sealing sleeve lip's distance(m/m)

T : Thickness of SUS 304 Coupling case(m/m)

U : Coupling outside diameter(m/m)

W.P : Maximum working pressure(kg/cm²)

W : Weight per each set



Y.N.

APPLICATION OF PIPE COUPLING



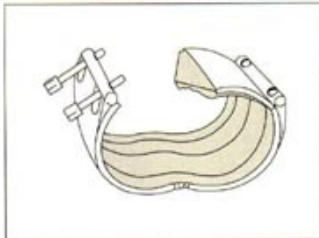
Versatile, economical

YN-Multiflex pipe couplings are used everywhere there are pipes. They can quickly join even piping of different materials. The flexible joints, requiring no special tools, are completely tight and durable. They also allow a diameter difference and a substantial inclined deviation between pipe diameters.

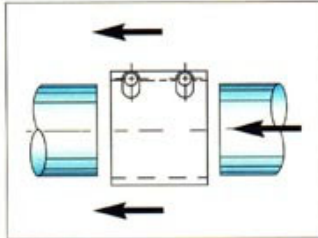
The most common applications are

- as flexible elements in industrial piping
- for quick piping modifications used together with the YN-modules system
- for connecting together pre-manufactured piping
- in restricted spaces and spaces with a fire risk: as a piping extension
- in locations where speed of construction is important
- for piping susceptible to blockage
- in shipbuilding: to save weight and space and also to eliminate noise resonance and vibration
- for connecting piping of different materials together
- in the stress-free construction of under ground metal piping containing pressure
- for fast and reliable repair of all types of piping

YN-Multiflex couplings have many advantages



1) Suitable for new building and repair work. The piping can be quickly disassembled and the couplings can be used again.



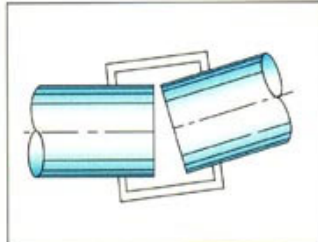
2) Installation is fast and troublefree. Neither special tools nor expertise are required.



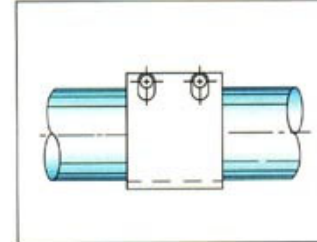
3) Completely corrosion-free construction. Only the rubber sealing is in contact with the flowing media.



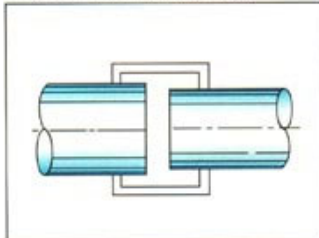
4) Light weight space-saving construction. Easy to install even in restricted spaces.



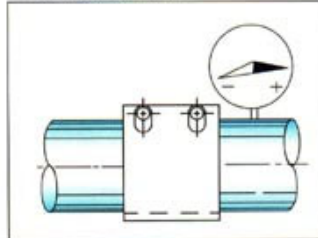
5) YN-Multiflex pipe couplings allow a maximum inclined deviation of 10°



6) The coupling acts as a flexible compensator for movements caused by heat and also effectively dampens vibration.



7) The difference in diameters between the pipes to be joined may be 4mm and the coupling is suitable for all piping materials.



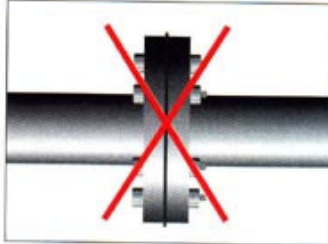
8) By virtue of its construction, the coupling is just as reliable in piping containing pressure above or below atmospheric pressure.

YN-Multiflex couplings produce a fast and flexible joint which lengthens the lifetime of the piping and lowers maintenance costs.



OPERATING PRINCIPLE AND INSTALLATION

Advantage 1

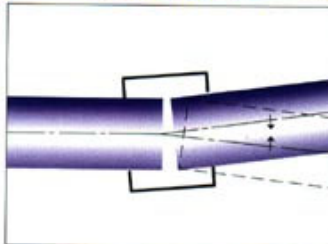


YOUNGNAM GRIP RING COUPLING is simple to install.

Just cut pipe to length, position ends together and tighten bolts instead of welding, flanging, threading or grooving. One man is enough.

Anyone can do it.

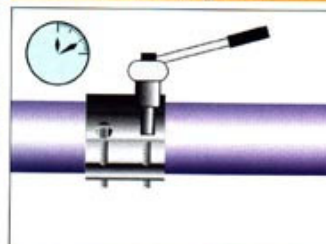
Advantage 2



YOUNGNAM GRIP RING COUPLING takes up inaccuracies.

Metal pipes are joined securely and resistant to pressure in spite of a gap between pipe ends, misaligned pipes or rough surfaces.

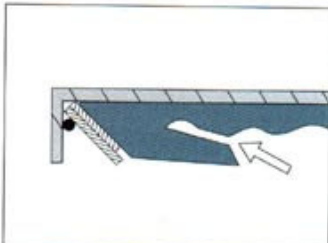
Advantage 3



YOUNGNAM GRIP RING COUPLING is ready to install immediately.

A ready-to-use pipe coupling. Fitted in a matter of minutes without heavy equipment and long setting up times.

Advantage 4

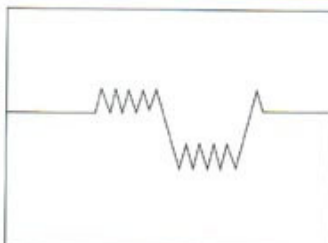


YOUNGNAM GRIP RING COUPLING is long lasting.

The low-stressed sealing gasket is highly chemical resistant and provides a longterm reliable seal-ing.

Corrosion-resistant metal parts.

Advantage 5

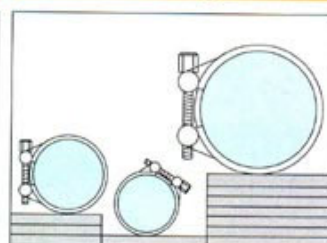


YOUNGNAM GRIP RING COUPLING reliable in operation.

Progressive sealing effect and powerful gripping force. Dampens water hammer, vibration and structureborne noise.

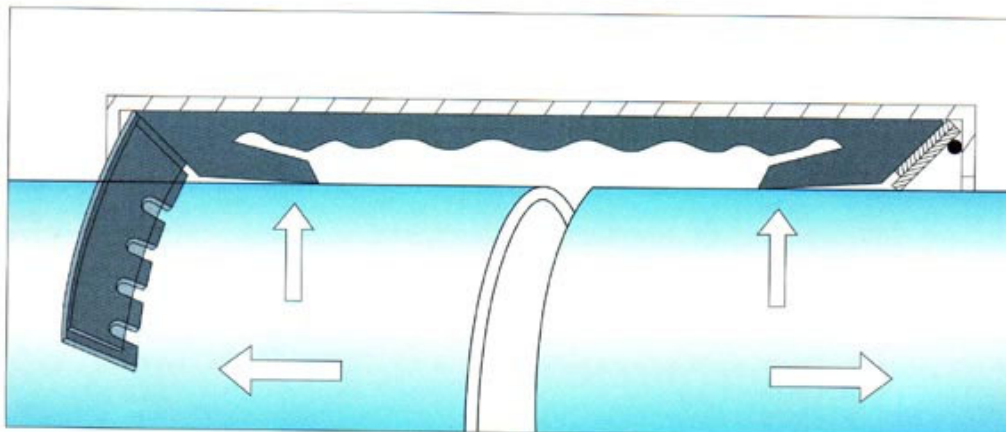
Protects pipes and other equipment.

Advantage 6



YOUNGNAM GRIP RING COUPLING saves costly space.

The compact design with only two locking points permits close pipe spacing, small diameter insulation and smaller openings for pipes.





Y. N.

PIPE COUPLINGS SITE APPLICATION

Shipbuilding, Offshore

pipes for firefighting, plumbing, ballast, compressed air supply and removal, transport, cooling water, sea water and fresh water.
Not a rigid pipe joint, but 2° pipe misalignment tolerated in any direction. Trouble-free and free from maintenance even under dynamic loads.
Sound absorbent and vibration dampening. Good accessibility for fitting. Excellent space saving when laying pipes and low weight.



Water and Gas Supplies

Pump and hydrant pipes, shaft pipes, distribution lines, house connections.
A handy pipe coupling designed for all construction site conditions.
Effortless fitting without loose parts. A good professional job even in narrow trenches, in dirty and cold conditions. Even earth movement doesn't affect this pipe joint.



Building Construction and Civil Engineering

Cold and warm water lines, pump lines, gas and compressed air lines, temporary pipelines.
Direct installation of pipe sections Without preassembly, no costly alignment and adjustment. Galvanized pipes can be cut to length on site. No additional pipe end machining. Tolerates changes in direction without fixed points, supports or holders.



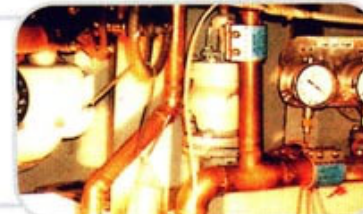
Power Plants

Cooling return pipes, compressed air and firefighting lines, lubrication pipes.
The pipe joint withstands continuous temperatures from -30°C to +100°C and operating pressures up to 16 bar. Functional reliability even under water hammer and shock loading. Pipe damage can be repaired rapidly.



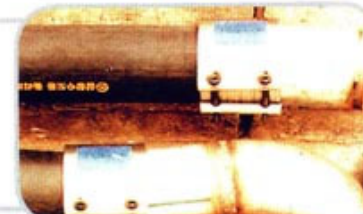
Machinery, Design Work

Cooling and compressed air lines, suction and lubrication pipes, fuel pipes.
Versatility in use thanks to compact size. Available in many sizes. Tolerates dimensional variances and is unaffected by vibration. Simple fitting and removal. Reusable several times. Easy servicing.



Industrial Plants, Plant Maintenance

Ring and riser pipes, power and process pipes, firefighting, transport and conveying lines.
The special design of the pipe coupling ensures a longlasting seal, accommodates dimensional variances and keeps pipeline construction stress free. Subsequent installations can be carried out rapidly with your own personnel, without fire or explosion hazards.



EPDM -30°C~+100°C

Sealing for water, waste water, air

NBR -20°C~+80°C

Sealing for oil, gases, fuels, lubricants

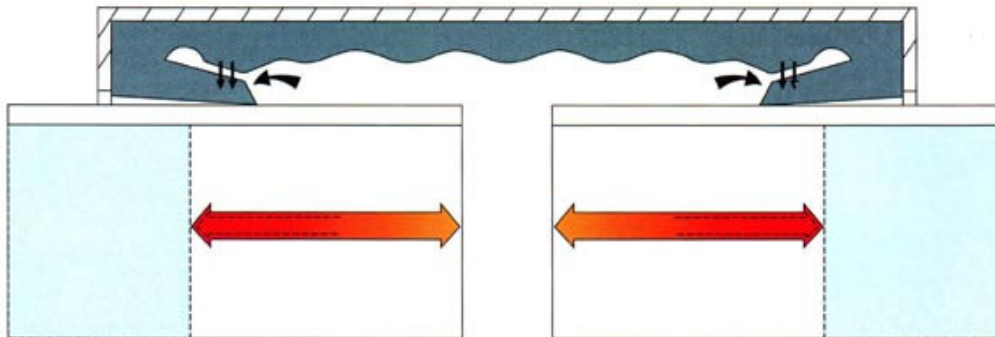


OPERATING PRINCIPLE AND INSTALLATION

Sealing

The elastic lip of the seal is tightly pressed against the outer surface of even an irregularly-shaped pipe by means of pilot holes. The internal pressure of the pipe bears upon the rear side of the lip so that pressure increases improve the sealing properties. In the centre of the seal is a raised rubber stopper. This acts as a stiff-

ener for the seal when pipe contents are below atmospheric pressure and separates the pipe ends from each other. The waved form of the internal sur-face of the seal prevents it from being sucked into the pipe when pipe contents are below atmospheric pressure.



Installation

Normally, the YN-Multiflex coupling is placed over the end for one of the pipes to be connected. After this, the coupling is simply tightened to the torque shown for the coupling. (See Fig.1)
To repair localized leaks, the coupling casing is opened

and the casing and sealing part is removed. The seal is cut away and the center stopper is stripped off. After this, the casing with seal is installed around the leak-ing welded joint or other leaking point, and tightened as before. (See Fig.2)

FIG 1

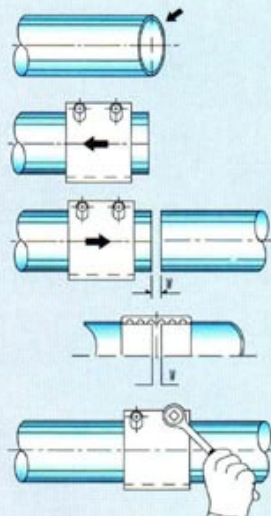
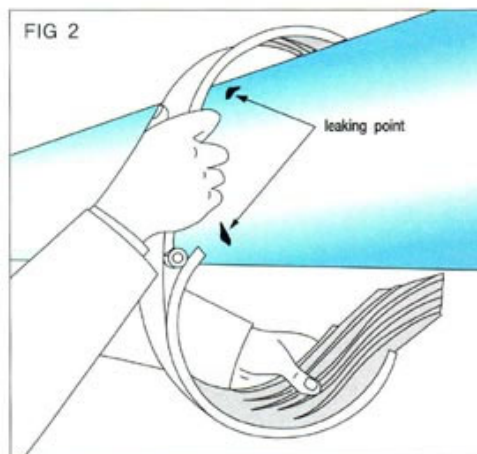
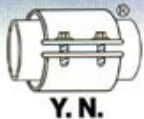


FIG 2



YN-REPAIR CLAMP

Keep your pressure!

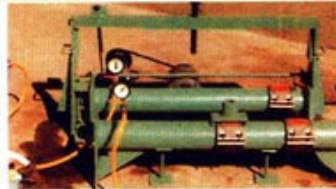


TEST DATA FOR PIPE COUPLING

VARIOUS TEST METHOD

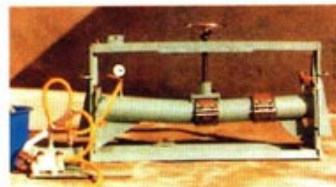
1. HYDRO PRESSURE TEST

MODEL	TESTED PRESSURE	TEST RESULT	FINAL HYDRO TEST RESULT
MF-RS 100	32kg/cm ²	5 MIN KEPT RESULT:GOOD	50kg/cm ² TESTED RESULT:GOOD



2. BENDING TEST

MODEL	TESTED PRESSURE	FINAL BENDING ANGLE	TEST RESULT
MF-RS 100	32kg/cm ²	BOTH SIDE 10°	RESULT:GOOD



3. FIRE ENDURANCE TEST

MODEL	TESTED PRESSURE	TESTED TIME	TESTED TEMPERATURE	TEST RESULT
MF-RS 100	5.0kg/cm ²	30 MIN	800°C	GOOD



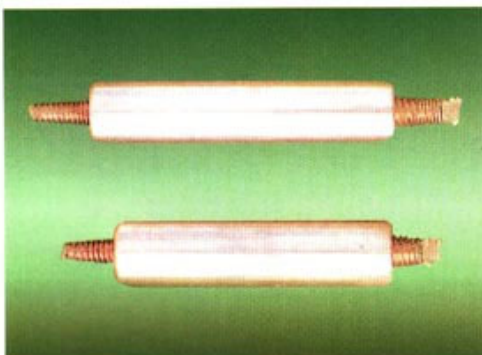
TEST LABORATORY:KOREA INSTITUTE OF MACHINERY & MATERIALS
RULE APPLIED:G.L.
CONTENT:NO LEAKAGE & DEFORMATION OF THE PRODUCT WHEN
TESTED 30 MIN AT 800°C WITH 5.0kg/cm² CIRCULATION

TEST REPORT

●TENSILE STRENGTH FOR STAINLESS STEEL BOLTS

TEST ITEM	TEST RESULT	
	BOLT M14	BOLT M18
STRENGTH OF BOLTS(kgf/mm ²)	99	120

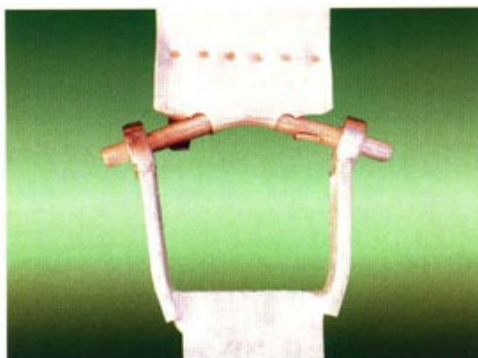
↓ KS B 0223('91)



●TENSILE STRENGTH FOR WELDED PARTS

TEST ITEM	TEST RESULT
LOAD FOR WELDED PATRS	5,676(kgf)

↓ KS B 0802('91)(REMARK:SPOT WELDING 6 POINT×1.0t)



●TEST LABORATORY:INDUSTIAL TECHNOLOGY INSTITUTE OF PUSAN



TEST DATA FOR Y.N. GRIP RING PIPE COUPLING

TEST REPORT (#97163250)

●PULL-OUT TEST(BY SAFETY ECONOMY ENGINEERING)



GR-S		GR-L	
SIZE	LOAD(TON)	SIZE	LOAD(TON)
25A	0.3	100A	2.0
50A	0.6	150A	3.6
100A	2.0	300A	10.1
300A	9.5		

●TEST: VIBRATION TEST, TIGHTNESS TEST & VACUUM TEST
(TEST SPECIMEN : 200A GR-S COUPLING)

1. VACUUM TEST

VIBRATION TIME	NO OF CYCLES	AMPLITUDE (mm)	FREQUENCY (S ⁻¹)	RESULT
REPEAT SEQUENCE	3×10^6	+0.5	20	GOOD

2. HYDROSTATIC TIGHTNESS TEST

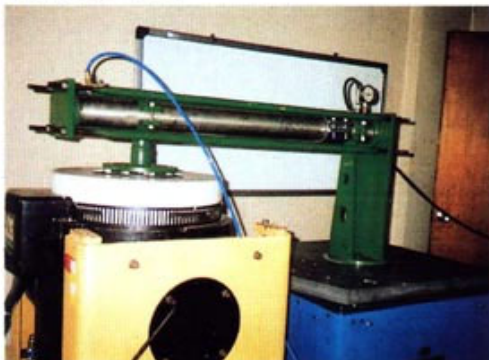
TIGHTNESS TEST DURING VIBRATION TEST	32kg/cm ² (2 TIMES HIGHER THAN NORMAL WORKING PRESSURE)	RESULT : GOOD
--------------------------------------	---	---------------

3. PNEUMATIC VACUUM TEST

VACUUM TEST DURING VIBRATION TEST	TEST PRESSURE FOR VACUUM : 100mbar	RESULT : GOOD
-----------------------------------	------------------------------------	---------------

●TEST LABORATORY:KOREA INSTITUTE OF MACHINERY & MATERIALS

SCENE OF PRESSURE, VIBRATION & VACUUM TEST



TEST CONTENT:(ABOVE 1, 2, 3 PERFORMED TOGETHER)

SCENE OF FIRE TEST(FLAME TEST)



TEST CONTENT:PERFORMED 30MIN BY G.L RULE AT 800°C 5.0kg/cm² CIRCULATION



Y.N. PIPE COUPLING FROM MANUFACTURING TO USE



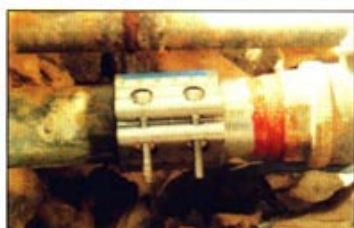
▲ READY FOR EXPORT SHIPMENT AFTER ASSEMBLING TO SPECIAL RUBER SLEEVES



▲ READY FOR EXPORT SHIPMENT OF 300 SETS OF 400A COUPLINGS



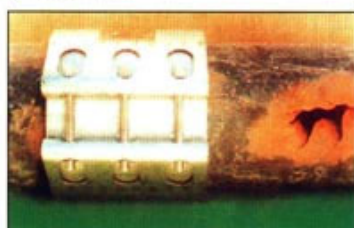
▲ READY FOR EXPORT SHIPMENT OF 1500A COUPLINGS



▲ COMPLETION OF CONNETION WITH STEEL PIPE & DUCTILE PIPE



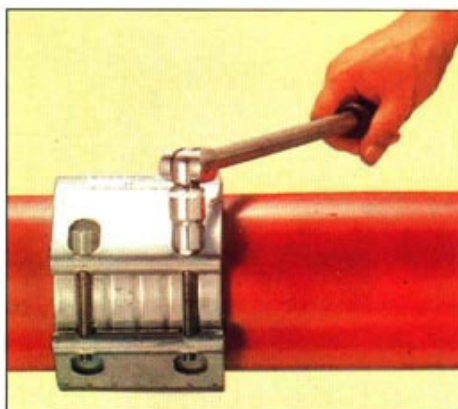
▲ ABOVE-GROUND LINE FOR LARGE WATER SUPPLY PIPELINES



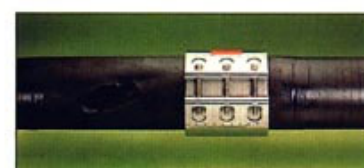
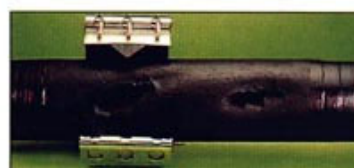
▲ REPAIR OF HOLED PIPE FOR WATER SUPPLY AND DRAINAGE PIPELINES



▲ EMERGENCY REPAIR SITE FOR UNDERGROUND WATER SUPPLY LINE



▲ COMPLETION OF REPAIR WITH REPAIR CLAMP(100% WATERTIGHT PROVED)





Y.N. PIPE COUPLING FROM MANUFACTURING TO SITE



▲ LARGE WATER SUPPLYING PIPELINES



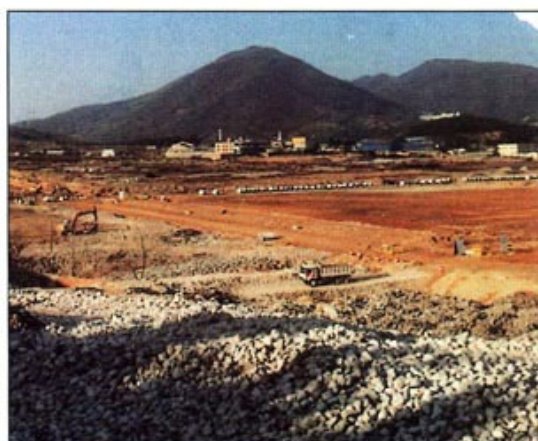
▲ UNDERGROUND PIPELINES



▲ DRAIN PIPELINES ON LARGE BRIDGE FOR VIBRATION-PROOF



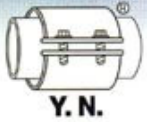
▲ REPAIR OF A LEAKING WATER SUPPLY LINE IN AN APARTMENT BUILDING



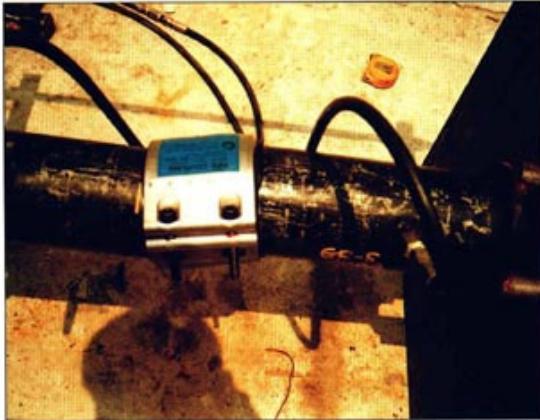
▲ TEMPORARY PIPE ON THE SITE OF LARGE INDUSTRIAL



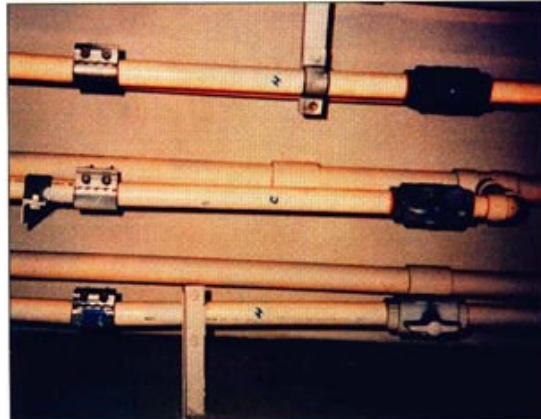
▲ TRANSPORTING LINE FOR SAND



Y.N. PIPE COUPLING FROM MANUFACTURING TO SITE



▲ NO LEAK FOUND ON TWISTED PIPELINE



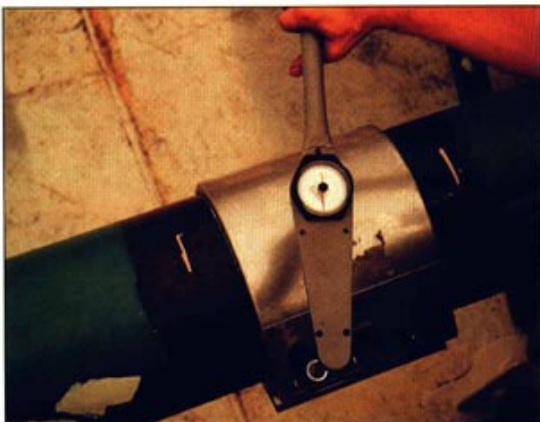
▲ INSTALLED COUPLINGS ON PVC PIPES FOR HOT WATER SUPPLY LINES ON A NEW PASSENGER SHIP



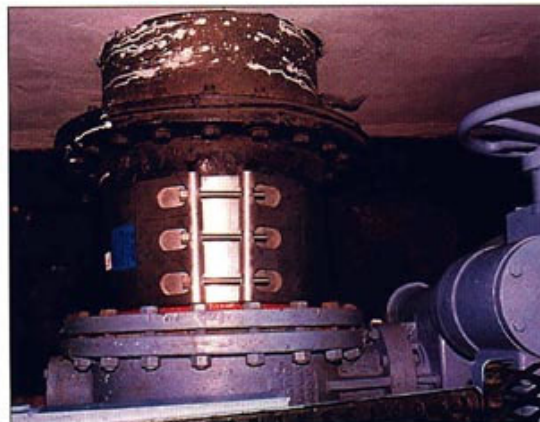
▲ VIEW OF INSTALLING A REPAIR CLAMP(RC-L) ON 500mm DIAMETER PIPE WITH SPECIAL BELT



▲ VIEW OF A COUPLING ASSEMBLED ON 2044mm DIAMETER CAST IRON PIPE EXPORTED TO SAUDI ARABIA FOR LARGE WATER WORKS



▲ VIEW OF OXYGEN LINE ON THE SHIP



▲ VIEW OF A 500mm COUPLING INSTALLED ON

[illegible]