DUKELARRSEN®

Grooved Coupling & Grooved Fitting

ผลิตภัณฑ์ผ่านมาตรฐานการทดสอบ **UL/ FM**

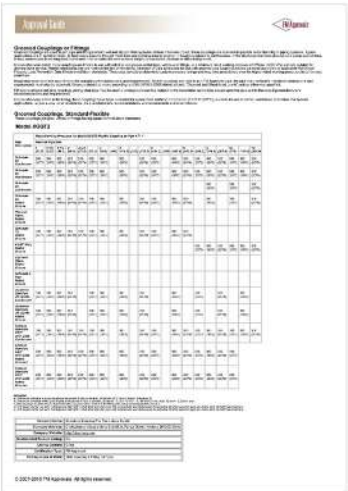
Ductile Iron

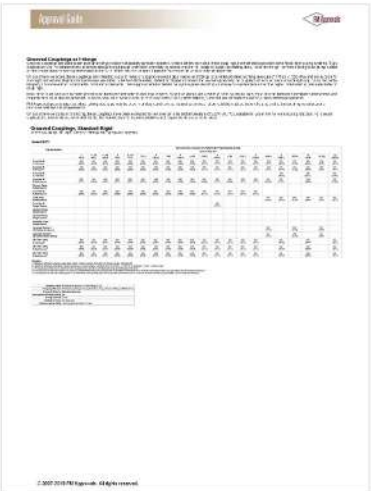
Grooved Fittings and Couplings

www.dukelarrsen.com

E-mail : dukelarrsen.coupling@gmail.com

CERTIFICATES





4 เหตุผลที่ควรใช้ระบบกรูฟ

ทดแทนการเชื่อมท่อแบบดั้งเดิม

1. ไม่เกิดการอุดตันจาก Slag (เศษผงเหล็ก)

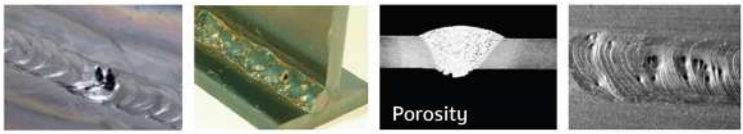
ระบบเชื่อม

Slag (เศษผงเหล็ก) ภายในท่อ ก่อให้เกิดการอุดตันที่หัว Sprinkler ส่งผลให้ระบบดับเพลิงทำงานไม่สมบูรณ์

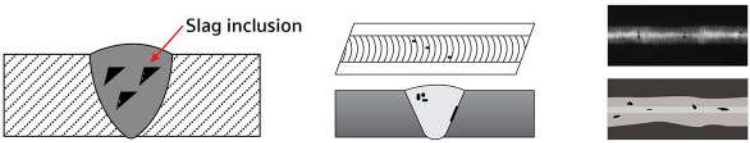
ระบบกรูฟ

ใช้รัดแยกสามทางเกลียวในติดตั้ง Sprinkler ระบบดับเพลิง สามารถทำงานได้อย่างสมบูรณ์

2. รูพรุนจากรอยเชื่อม ต้นเหตุของการเกิดท่อผุ รั่ว ซึม ในที่สุด



3. การเชื่อมแบบดั้งเดิมอาจก่อให้เกิดเศษผงเหล็ก (Slag) ฝังในรอยเชื่อมที่อาจส่งผลให้เกิดท่อผุ รั่ว ซึม ในที่สุด



4. การเกิดประกายไฟ

ระบบเชื่อม

ระบบเชื่อมมีประกายไฟ ต้นเหตุของเพลิงไหม้

ระบบกรูฟ

ระบบกรูฟไม่ก่อให้เกิดประกายไฟ

GROOVED COUPLINGS AND FITTINGS

1.Reduce installation costs

- easy to assemble, no special training required
- minimal equipments are required
- fast assembly in tight places
- free of welding, no pollution
- lower installation costs

2. Flexibility and rigidity

- The flexible coupling allow expansion, contraction and deflection because of the changing temperature
- The rigid coupling can provide the connection as well as welding

3. joint reliability

- The couplings engage the pipe around the fill circumference and restrain the pipe ends from separation due to pressure and other forces, up to the maximum coupling rated working pressure.

4. Isolate noise and vibration

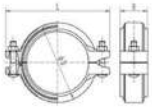
- Pre-designed slight gap between pipe ends and elastomeric gasket help to isolate and absorb noise and vibration.

5. Convenient joint

- Coupling can be disassembled easily permitting removal of pipe section for cleaning or servicing. It will facilitate periodic rotation of pipe to distribute internal wear from slurries or other abrasive media

Rigid Coupling DUKELARRSEN

(300 psi)



MODEL NO. : XGQT1

Nominal Size mm/in	Pipe OD mm/in	Bolt Size mm	Dimensions mm			Woking Pressure Psi/Mpa	Certificate
			Ø	L	H		
25 1	33.7 1.327	2-M10 × 45	57	97	44	300 2.07	FM UL
32 1 1/4	42.4 1.669	2-M10 × 45	67	107.5	44	300 2.07	FM UL
40 1 1/2	48.3 1.900	2-M10 × 45	72	114	44	300 2.07	FM UL
50 2	60.3 2.375	2-M10 × 55	85	125	45	300 2.07	FM UL
65 2 1/2	73.0 2.875	2-M10 × 55	98	137	45	300 2.07	FM UL
65 2 1/2	76.1 3.000	2-M10 × 55	100	139	45	300 2.07	FM UL
80 3	88.9 3.500	2-M10 × 55	114	160	45	300 2.07	FM UL
100 4	114.3 4.500	2-M12 × 65	147.2	193	50	300 2.07	FM UL
125 5	141.3 5.563	2-M12 × 75	170	222	50	300 2.07	FM UL
125 5	139.7 5.500	2-M12 × 75	170	222	50	300 2.07	FM UL
150 6	165.1 6.500	2-M12 × 75	203	248	50	300 2.07	FM UL
150 6	168.3 6.625	2-M12 × 75	205	254	50	300 2.07	FM UL
200 8	219.1 8.625	2-M16 × 85	257	330	58	300 2.07	FM UL
250 10	273.0 10.750	2-M20 × 130	328	420	62	300 2.07	FM UL
300 12	323.9 12.750	2-M20 × 130	380	454	63	300 2.07	FM UL

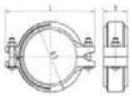
(ห้ามใช้จารบีทดแทนโดยเด็ดขาด)

องค์ประกอบสำคัญ

น้ำยาหล่อลื่น MECH LUBRICANT

Flexible Coupling DUKELARRSEN

(300 psi)

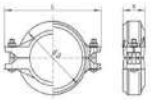


MODEL NO. : XGQT2

Nominal Size mm/in	Pipe OD mm/in	Bolt Size mm	Dimensions mm			Woking Pressure Psi/Mpa	Certificate
			Ø	L	H		
25 1	33.7 1.327	2-M10 × 45	57	97	44	300 2.07	FM UL
32 1 1/4	42.4 1.669	2-M10 × 45	67	107.5	44	300 2.07	FM UL
40 1 1/2	48.3 1.900	2-M10 × 45	72	114	44	300 2.07	FM UL
50 2	60.3 2.375	2-M10 × 55	85	125	45	300 2.07	FM UL
65 2 1/2	73.0 2.875	2-M10 × 55	98	137	45	300 2.07	FM UL
65 2 1/2	76.1 3.000	2-M10 × 55	100	139	45	300 2.07	FM UL
80 3	88.9 3.500	2-M10 × 55	114	160	45	300 2.07	FM UL
100 4	114.3 4.500	2-M12 × 66	147.2	193	50	300 2.07	FM UL
125 5	141.3 5.563	2-M12 × 75	170	222	50	300 2.07	FM UL
125 5	139.7 5.500	2-M12 × 75	170	222	50	300 2.07	FM UL
150 6	168.3 6.625	2-M16 × 85	203	248	50	300 2.07	FM UL
150 6	165.1 6.500	2-M16 × 85	205	254	50	300 2.07	FM UL
200 8	219.1 8.625	2-M20 × 120	257	330	58	300 2.07	FM UL
250 10	273.0 10.750	2-M22 × 140	328	420	62	300 2.070	FM UL
300 12	323.9 12.750	2-M22 × 140	380	454	63	300 2.07	FM UL

Reducing Flexible Coupling DUKELARRSEN

(300 psi)



MODEL NO. : XGQT6

Nominal Size mm/in	Pipe OD Dxd mm/in	Bolt Size mm	Dimensions mm			Woking Pressure Psi/Mpa	Certificate
			Ø	L	H		
50 × 40 2 × 1 1/2	60.3 × 48.3 2.375 × 1.900	2-M10 × 55	85	125	45	300 2.07	FM UL
65 × 50 2 1/2 × 2	73 × 60.3 2.875 × 2.375	2-M10 × 55	98	137	45	300 2.07	FM UL
65 × 50 2 1/2 × 2	76.1 × 60.3 3.000 × 2.375	2-M10 × 55	100	139	45	300 2.07	FM UL
80 × 25 3 × 1	88.9 × 33.7 3.500 × 1.327	2-M10 × 55	114	160	45	300 2.07	FM UL
80 × 50 3 × 2	88.9 × 60.3 3.500 × 2.375	2-M10 × 55	114	160	45	300 2.07	FM UL
80 × 65 3 × 2 1/2	88.9 × 76.1 3.500 × 3.000	2-M10 × 55	114	160	45	300 2.07	FM UL
100 × 25 4 x 1	114.3 × 33.7 4,500 x 1,327	2-M12 × 65	147.2	193	50	300 2.07	FM UL
100 × 50 4 x 2	114.3 × 60.3 4,500 x 2,375	2-M12 × 65	147.2	193	50	300 2.07	FM UL
100 × 65 4 x 2-1/2	114.3 × 73.0 4.500 × 3.000	2-M12 × 65	147.2	193	50	300 2.07	FM UL
100 × 65 4 × 2 1/2	114.3 × 76.1 4.500 × 3.000	2-M12 × 65	147.2	193	50	300 2.07	FM UL
100 × 80 4 × 3	114.3 × 88.9 4.500 × 3.500	2-M12 × 65	147.2	193	50	300 2.07	FM UL
150 × 80 6 × 3	168.3 × 88.9 6.625 × 3.500	2-M12 × 75	205	254	50	300 2.07	FM UL
150 × 100 6 × 4	168.3 × 114.3 6.625 × 4.500	2-M12 × 75	205	254	50	300 2.07	FM UL

หน้าจาน PN16 Grooved DUKELARRSEN

(300 psi)

MODEL NO. : XGQT5

Nominal Size mm/in	Pipe OD mm/in	Bolt Size mm	Dimensions mm					Woking Pressure Psi/Mpa	Certificate
			L	D	Y	Z	n-Ø		
50 2	60.3 2.375	2-M10X70	220	165	125	23	4-Ø18	300 2.07	FM UL
65 2 1/2	73.0 2.875	2-M10X70	235	185	145	23	4-Ø18	300 2.07	FM UL
65 2 1/2	76.1 3.000	2-M10X70	235	185	145	23	4-Ø18	300 2.07	FM UL
80 3	88.9 3.500	2-M10X70	255	195	160	23	8-Ø18	300 2.07	FM UL
100 4	114.3 4.500	2-M12X70	279	224	180	23	8-Ø18	300 2.07	FM UL
150 6	168.3 6.625	2-M12X70	346	280	240	24	8-Ø22	300 2.07	FM UL
150 6	165.1 6.500	2-M12X70	346	280	240	24	8-Ø22	300 2.07	FM UL
200 8	219.1 8.625	2-M12X80	414	340	295	28	12-Ø26	300 2.07	FM UL
250 10	273.0 10.750	2-M12X80	480	405	355	30	12-Ø26	300 2.07	FM UL
300 12	323.9 12.750	2-M12X80	530	460	410	32	12-Ø26	300 2.07	FM UL

หน้าจาน ANSI 150 Grooved DUKELARRSEN

(300 psi)

MODEL NO. : XGQT5A

Nominal Size mm/in	Pipe OD mm/in	Bolt Size mm	Dimensions mm					Woking Pressure Psi/Mpa	Certificate
			L	D	Y	Z	n-Ø		
50 2	60.3 2.375	2-M10X70	220	165	121	23	4- Ø19	300 2.07	FM UL
65 2 1/2	73.0 2.875	2-M10X70	235	185	140	23	4-Ø19	300 2.07	FM UL
80 3	88.9 3.500	2-M12X70	255	200	152	23	4-Ø19	300 2.07	FM UL
100 4	114.3 4.500	2-M12X70	279	228	191	23	8-Ø19	300 2.07	FM UL
125 5	141.3 5.563	2-M12X80	320	250	216	24	8-Ø19	300 2.07	FM UL
125 5	139.7 5.5	2-M12X70	320	250	216	24	8-Ø19	300 2.07	FM UL
150 6	168.3 6.625	2-M16X100	346	285	241	24	8-Ø23	300 2.07	FM UL
200 8	219.1 8.625	2-M16X100	414	340	299	28	8-Ø23	300 2.07	FM UL

ข้องอ 22.5 Grooved DUKELARRSEN

(300 psi)

MODEL NO. : XGQT07

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm L	Woking Pressure Psi/Mpa	Certificate
40 1 1/2	48.3 1.9	44	300 2.07	FM UL
50 2	60.3 2.375	51	300 2.07	FM UL
65 2 1/2	73.0 2.875	51	300 2.07	FM UL
65 2 1/2	76.1 3.000	51	300 2.07	FM UL
80 3	88.9 3.500	57	300 2.07	FM UL
100 4	114.3 4.500	73	300 2.07	FM UL
125 5	139.7 5.5	73	300 2.07	FM UL
150 6	168.3 6.625	79	300 2.07	FM UL
150 6	165.1 6.500	79	300 2.07	FM UL
200 8	219.1 8.625	98	300 2.07	FM UL
250 10	273.0 10.75	111	300 2.07	FM UL

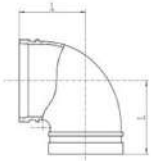
ข้องอ 45 Grooved DUKELARRSEN

(300 psi)

MODEL NO. : XGQT02

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm L	Woking Pressure Psi/Mpa	Certificate
25 1	33.7 1.327	44	300 2.07	FM UL
32 1 1/4	42.4 1.669	44	300 2.07	FM UL
40 1 1/2	48.3 1.900	44	300 2.07	FM UL
50 2	60.3 2.375	51	300 2.07	FM UL
65 2 1/2	73.0 2.875	57	300 2.07	FM UL
65 2 1/2	76.1 3.000	57	300 2.07	FM UL
80 3	88.9 3.500	64	300 2.07	FM UL
100 4	114.3 4.500	76	300 2.07	FM UL
125 5	138.7 5.5	83	300 2.07	FM UL
150 6	168.3 6.625	89	300 2.07	FM UL
150 6	165.1 6.500	89	300 2.07	FM UL
200 8	219.1 8.625	108	300 2.07	FM UL
250 10	273.0 10.750	121	300 2.07	FM UL
300 12	323.9 12.750	133	300 2.07	FM UL

ข้องอ 90
Grooved
DUKELARRSEN
(300 psi)



MODEL NO. : XGQT01

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm L	Woking Pressure Psi/Mpa	Certificate
25 1	33.7 1.327	57	300 2.07	FM UL
32 1 1/4	42.4 1.669	60	300 2.07	FM UL
40 1 1/2	48.3 1.900	60	300 2.07	FM UL
50 2	60.3 2.375	70	300 2.07	FM UL
65 2 1/2	73.0 2.875	76	300 2.07	FM UL
65 2 1/2	76.1 3.000	76	300 2.07	FM UL
80 3	88.9 3.500	76	300 2.07	FM UL
100 4	114.3 4.500	102	300 2.07	FM UL
125 5	141.3 5.563	122	300 2.07	FM UL
125 5	139.7 5.500	122	300 2.07	FM UL
150 6	168.3 6.625	140	300 2.07	FM UL
150 6	165.1 6.500	140	300 2.07	FM UL
200 8	219.1 8.625	175	300 2.07	FM UL
250 10	273.0 10.750	215	300 2.07	FM UL
300 12	323.9 12.750	245	300 2.07	FM UL

ข้อลดกลม Grooved DUKELARRSEN

(300 psi)

MODEL NO. : XGQT07G

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm L	Woking Pressure Psi/Mpa	Certificate
32 × 25 1 1/4 × 1	42.4 × 33.7 1.669 × 1.327	64	300 2.07	FM UL
40 × 25 1 1/2 × 1	48.3 × 33.7 1.900 × 1.327	64	300 2.07	FM UL
40 × 32 1 1/2 × 1 1/4	48.3 × 42.4 1.900 × 1.669	64	300 2.07	FM UL
50 × 25 2 × 1	60.3 × 33.7 2.375 × 1.327	64	300 2.07	FM UL
50 × 32 2 × 1 1/4	60.3 × 42.4 2.375 × 1.669	64	300 2.07	FM UL
50 × 40 2 × 1 1/2	60.3 × 48.3 2.375 × 1.900	64	300 2.07	FM UL
65 × 25 2 1/2 × 1	73.0 × 33.7 2.875 × 1.327	64	300 2.07	FM UL
65 × 25 2 1/2 × 1	76.1 × 33.7 2.875 × 1.327	64	300 2.07	FM UL
65 × 32 2 1/2 × 1 1/4	73.0 × 42.4 2.875 × 1.669	64	300 2.07	FM UL
65 × 32 2 1/2 × 1 1/4	76.1 × 42.4 2.875 × 1.669	64	300 2.07	FM UL
65 × 40 2 1/2 × 1 1/2	73.0 × 48.3 2.875 × 1.900	64	300 2.07	FM UL
65 × 40 2 1/2 × 1 1/2	76.1 × 48.3 2.875 × 1.900	64	300 2.07	FM UL
65 × 50 2 1/2 × 2	73.0 × 60.3 2.875 × 2.375	64	300 2.07	FM UL
65 × 50 2 1/2 × 2	76.1 × 60.3 2.875 × 2.375	64	300 2.07	FM UL
80 × 25 3 × 1	88.9 × 33.7 3.500 × 1.327	64	300 2.07	FM UL
80 × 32 3 × 1 1/4	88.9 × 42.4 3.500 × 1.669	64	300 2.07	FM UL
80 × 40 3 × 1 1/2	88.9 × 48.3 3.500 × 1.900	64	300 2.07	FM UL
80 × 50 3 × 2	88.9 × 60.3 3.500 × 2.375	64	300 2.07	FM UL
80 × 65 3 × 2 1/2	88.9 × 73.0 3.500 × 2.875	64	300 2.07	FM UL
80 × 65 3 × 2 1/2	88.9 × 76.1 3.500 × 3.000	64	300 2.07	FM UL
100 × 32 4 × 1 1/4	114.3 × 42.4 4.500 × 1.669	76	300 2.07	FM UL
100 × 40 4 × 1 1/2	114.3 × 48.3 4.500 × 1.900	76	300 2.07	FM UL
100 × 50 4 × 2	114.3 × 60.3 4.500 × 2.375	76	300 2.07	FM UL
100 × 65 4 × 2 1/2	114.3 × 73.0 4.500 × 2.875	76	300 2.07	FM UL
100 × 65 4 × 2 1/2	114.3 × 76.1 4.500 × 3.000	76	300 2.07	FM UL
100 × 80 4 × 3	114.3 × 88.9 4.500 × 3.500	76	300 2.07	FM UL

ข้อลดกลม Grooved DUKELARRSEN

(300 psi)

MODEL NO. : XGQT07G

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm L	Woking Pressure Psi/Mpa	Certificate
125 × 50 5 × 2	139.7 × 60.3 5.500 × 2.375	89	300 2.07	FM UL
125 × 65 5 × 2 1/2	139.7 × 60.3 5.500 × 2.375	89	300 2.07	FM UL
125 × 80 5 × 3	139.7 × 88.9 5.500 × 3.5	89	300 2.07	FM UL
125 × 100 5 × 4	139.7 × 108.0 5.500 × 4.25	89	300 2.07	FM UL
150 × 50 6 × 2	168.3 × 60.3 6.625 × 2.875	102	300 2.07	FM UL
150 × 50 6 × 2	159.0 × 60.3 6.25 × 2.375	102	300 2.07	FM UL
150 × 65 6 × 2 1/2	168.3 × 73.0 6.625 × 2.875	102	300 2.07	FM UL
150 × 65 6 × 2 1/2	165.1 × 76.1 6.500 × 3.000	102	300 2.07	FM UL
150 × 80 6 × 3	168.3 × 88.9 6.625 × 3.500	102	300 2.07	FM UL
150 × 80 6 × 3	165.1 × 88.9 6.500 × 3.500	102	300 2.07	FM UL
150 × 100 6 × 4	168.3 × 114.3 6.625 × 4.500	102	300 2.07	FM UL
150 × 100 6 × 4	165.1 × 114.3 6.500 × 4.500	102	300 2.07	FM UL
150 × 125 6 × 5	168.3 × 139.7 6.625 × 5.500	102	300 2.07	FM UL
150 × 125 6 × 5	165.1 × 139.7 6.500 × 5.500	102	300 2.07	FM UL
200 × 65 8 × 2 1/2	219.1 × 73.0 8.625 × 2.875	127	300 2.07	FM UL
200 × 65 8 × 2 1/2	219.1 × 76.1 8.625 × 3.000	127	300 2.07	FM UL
200 × 80 8 × 3	219.1 × 88.9 8.625 × 3.500	127	300 2.07	FM UL
200 × 100 8 × 4	219.1 × 114.3 8.625 × 4.500	127	300 2.07	FM UL
200 × 125 8 × 5	219.1 × 141.3 8.625 × 6.625	127	300 2.07	FM UL
200 × 125 8 × 5	219.1 × 139.7 8.625 × 5.500	127	300 2.07	FM UL
200 × 150 8 × 6	219.1 × 168.3 8.625 × 6.625	127	300 2.07	FM UL
200 × 150 8 × 6	219.1 × 165.1 8.625 × 6.500	127	300 2.07	FM UL

ข้อลดเบี้ยว Grooved DUKELARRSEN

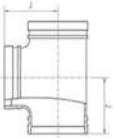
(300 psi)

MODEL NO. : XGQT07P

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm L	Woking Pressure Psi/Mpa	Certificate
80 × 50 3 × 2	88.9 × 60.3 3.500 × 2.375	64	300 2.07	FM UL
100 × 50 4 × 2	114.3 × 60.3 4.500 × 2.375	76	300 2.07	FM UL
100 × 65 4 × 2 1/2	114.3 × 76.1 4.500 × 3.000	76	300 2.07	FM UL
100 × 65 4 × 2 1/2	114.3 × 73.0 4.500 × 2.875	76	300 2.07	FM UL
100 × 80 4 × 3	114.3 × 88.9 4.500 × 3.500	76	300 2.07	FM UL
125 × 65 5 × 2 1/2	139.7 × 73.0 5.500 × 2.875	89	300 2.07	FM UL
125 × 80 5 × 3	139.7 × 88.9 5.500 × 3.500	89	300 2.07	FM UL
125 × 100 5 × 4	139.7 × 114.3 5.500 × 4.500	89	300 2.07	FM UL
150 × 65 6 × 2 1/2	165.1 × 76.1 6.500 × 3.000	102	300 2.07	FM UL
150 × 80 6 × 3	165.1 × 88.9 6.500 × 3.500	102	300 2.07	FM UL
150 × 80 6 × 3	168.3 × 88.9 6.625 × 3.500	102	300 2.07	FM UL
150 × 100 6 × 4	168.3 × 114.3 6.625 × 4.500	102	300 2.07	FM UL
150 × 100 6 × 4	165.1 × 114.3 6.500 × 4.500	102	300 2.07	FM UL
200 × 80 8 × 3	219.1 × 88.9 8.625 × 3.500	127	300 2.07	FM UL
200 × 100 8 × 4	219.1 × 114.3 8.625 × 4.500	127	300 2.07	FM UL
200 × 125 8 × 5	219.1 × 139.7 8.625 × 5.500	127	300 2.07	FM UL
200 × 150 8 × 6	219.1 × 168.3 8.625 × 6.625	127	300 2.07	FM UL
200 × 150 8 × 6	219.1 × 165.1 8.625 × 6.500	127	300 2.07	FM UL
250 × 150 10 × 6	273.0 × 165.1 10.750 × 6.500	152	300 2.07	FM UL
250 × 200 10 × 8	273 × 219.1 10.750 × 8.625	152	300 2.07	FM UL

สามทาง Grooved DUKELARRSEN

(300 psi)

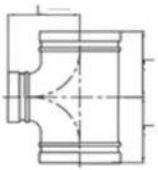


MODEL NO. : XGQT03

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm L	Woking Pressure Psi/Mpa	Certificate
25 1	33.7 1.327	57	300 2.07	FM UL
32 1 1/4	42.4 1.669	60	300 2.07	FM UL
40 1 1/2	48.3 1.900	60	300 2.07	FM UL
50 2	60.3 2.375	70	300 2.07	FM UL
65 2 1/2	73.0 2.875	76	300 2.07	FM UL
65 2 1/2	76.1 3.000	76	300 2.07	FM UL
80 3	88.9 3.500	86	300 2.07	FM UL
100 4	114.3 4.500	102	300 2.07	FM UL
125 5	139.7 5.500	122	300 2.07	FM UL
125 5	141.3 5.563	122	300 2.07	FM UL
150 6	168.3 6.625	140	300 2.07	FM UL
150 6	165.1 6.500	140	300 2.07	FM UL
200 8	219.1 8.625	175	300 2.07	FM UL
250 10	273.0 10.750	215	300 2.07	FM UL
300 12	323.9 12.750	245	300 2.07	FM UL

สามทางลด Grooved DUKELARRSEN

(300 psi)

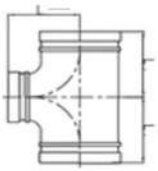


MODEL NO. : XGQT04

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm L	Woking Pressure Psi/Mpa	Certificate
50 × 25 2 × 1	60.3 × 33.7 2.375 × 1.327	70	300 2.07	FM UL
50 × 32 2 × 1 1/4	60.3 × 42.4 2.375 × 1.669	70	300 2.07	FM UL
50 × 40 2 × 1 1/2	60.3 × 48.3 2.375 × 1.900	70	300 2.07	FM UL
65 × 25 2 1/2 × 1	73.0 × 33.7 2.875 × 1.320	76	300 2.07	FM UL
65 × 25 2 1/2 × 1	76.1 × 33.7 3.000 × 1.327	76	300 2.07	FM UL
65 × 32 2 1/2 × 1 1/4	73.0 × 42.4 2.875 × 1.660	76	300 2.07	FM UL
65 × 32 2 1/2 × 1 1/4	76.1 × 42.4 3.000 × 1.669	76	300 2.07	FM UL
65 × 40 2 1/2 × 1 1/2	73.0 × 48.3 2.875 × 1.900	76	300 2.07	FM UL
65 × 40 2 1/2 × 1 1/2	76.1 × 48.3 3.000 × 1.900	76	300 2.07	FM UL
65 × 50 2 1/2 × 2	73.0 × 60.3 2.875 × 2.375	76	300 2.07	FM UL
65 × 50 2 1/2 × 2	76.1 × 60.3 3.000 × 2.375	76	300 2.07	FM UL
80 × 25 3 × 1	88.9 × 33.7 3.500 × 1.327	86	300 2.07	FM UL
80 × 32 3 × 1 1/4	88.9 × 42.4 3.500 × 1.669	86	300 2.07	FM UL
80 × 40 3 × 1 1/2	88.9 × 48.3 3.500 × 1.900	86	300 2.07	FM UL
80 × 50 3 × 2	88.9 × 60.3 3.500 × 2.375	86	300 2.07	FM UL
80 × 65 3 × 2 1/2	88.9 × 73.0 3.500 × 2.875	86	300 2.07	FM UL
80 × 65 3 × 2 1/2	88.9 × 76.1 3.500 × 3.000	86	300 2.07	FM UL
100 × 50 4 × 2	114.3 × 60.3 4.500 × 2.375	102	300 2.07	FM UL
100 × 65 4 × 2 1/2	114.3 × 73.0 4.500 × 2.875	102	300 2.07	FM UL
100 × 65 4 × 2 1/2	114.3 × 76.1 4.500 × 3.000	102	300 2.07	FM UL
100 × 80 4 × 3	114.3 × 88.9 4.500 × 3.500	102	300 2.07	FM UL
125 × 50 5 × 2	139.7 × 60.3 5.500 × 2.375	122	300 2.07	FM UL
125 × 65 5 × 2 1/2	139.7 × 76.1 5.500 × 3.000	122	300 2.07	FM UL
125 × 80 5 × 3	139.7 × 88.9 5.500 × 3.500	122	300 2.07	FM UL

สามทางลด Grooved DUKELARRSEN

(300 psi)

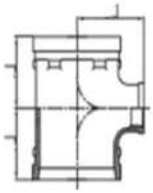


MODEL NO. : XGQT04

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm L	Woking Pressure Psi/Mpa	Certificate
125 × 100 5 × 4	139.7 × 114.3 5.500 × 4.500	122	300 2.07	FM UL
150 × 40 6 × 1 1/2	168.3 × 48.3 6.625 × 1.900	140	300 2.07	FM UL
150 × 50 6 × 2	168.3 × 60.3 6.625 × 2.375	140	300 2.07	FM UL
150 × 50 6 × 2	165.1 × 60.3 6.500 × 2.375	140	300 2.07	FM UL
150 × 65 6 × 2 1/2	168.3 × 73.0 6.625 x 2.870	140	300 2.07	FM UL
150 × 65 6 × 2 1/2	165.1 × 76.1 6.500 × 3.000	140	300 2.07	FM UL
150 × 80 6 × 3	168.3 × 88.9 6.625 x 3.500	140	300 2.07	FM UL
150 × 80 6 × 3	165.1 × 88.9 6.500 × 3.500	140	300 2.07	FM UL
150 × 100 6 × 4	168.3 × 114.3 6.625 x 4.500	140	300 2.07	FM UL
150 × 100 6 × 4	165.1 × 114.3 6.500 × 4.500	140	300 2.07	FM UL
150 × 125 6 × 5	165.1 × 139.7 6.500 × 5.500	140	300 2.07	FM UL
200 × 50 8 x 2	219.1 × 60.3 8.625 x 2.370	175	300 2.07	FM UL
200 × 65 8 x 2-1/2	219.1 × 73.0 8.625 x 3.00	175	300 2.07	FM UL
200 × 65 8 x 2-1/2	219.1 × 76.1 8.625 x 3.00	175	300 2.07	FM UL
200 × 80 8 x 3	219.1 × 88.9 8.625 x 3.500	175	300 2.07	FM UL
200 × 100 8 x 4	219.1 × 114.3 8.625 x 4.500	175	300 2.07	FM UL
200 × 125 8 × 5	219.1 × 139.7 8.625 × 5.500	175	300 2.07	FM UL
200 × 150 8 x 6	219.1 × 165.1 8.625 x 6.500	175	300 2.07	FM UL
200 × 150 8 x 6	219.1 × 168.3 8.625 x 6.620	175	300 2.07	FM UL
250 × 150 10 × 6	273.0 × 168.3 10.750 × 6.620	215	300 2.07	FM UL
250 × 150 10 × 6	273.0 × 165.1 10.750 × 6.500	215	300 2.07	FM UL
250 × 200 10 × 8	273.0 × 219.1 10.750 × 8.625	215	300 2.07	FM UL
300 × 150 12 × 6	323.9 × 168.3 12.750 × 6.625	245	300 2.07	FM UL
300 × 150 12 × 6	323.9 × 165.1 12.750 × 6.500	245	300 2.07	FM UL
300 × 250 12 × 10	323.9 × 273.0 12.750 × 10.750	245	300 2.07	FM UL

สามทางลดเกลียวใน Threaded DUKELARRSEN

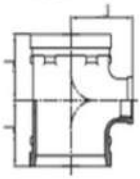
(300 psi)



MODEL NO. : XGQT04S

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm L	Woking Pressure Psi/Mpa	Certificate
50 × 25 2 × 1	60.3 × 33.7 2.375 × 1.327	70	300 2.07	FM UL
50 × 32 2 × 1 1/4	60.3 × 42.4 2.375 × 1.669	70	300 2.07	FM UL
50 × 40 2 × 1 1/2	60.3 × 48.3 2.375 × 1.900	70	300 2.07	FM UL
65 × 25 2 1/2 × 1	73.0 × 33.7 2.875 × 1.327	76	300 2.07	FM UL
65 × 25 2 1/2 × 1	76.1 × 33.7 3.000 × 1.327	76	300 2.07	FM UL
65 × 32 2 1/2 × 1 1/4	73.0 × 42.4 2.875 × 1.669	76	300 2.07	FM UL
65 × 32 2 1/2 × 1 1/2	76.1 × 42.4 3.000 × 1.669	76	300 2.07	FM UL
65 × 40 2 1/2 × 1 1/2	73.0 × 48.3 2.875 × 1.900	76	300 2.07	FM UL
65 × 40 2 1/2 × 1 1/2	76.1 × 48.3 3.000 × 1.900	76	300 2.07	FM UL
65 × 50 2 1/2 × 2	73.0 × 60.3 2.875 × 2.375	76	300 2.07	FM UL
65 × 50 2 1/2 × 2	76.1 × 60.3 3.000 × 2.375	76	300 2.07	FM UL
80 × 25 3 × 1	88.9 × 33.7 3.500 × 1.327	86	300 2.07	FM UL
80 × 32 3 × 1 1/4	88.9 × 42.4 3.500 × 1.669	86	300 2.07	FM UL
80 × 40 3 × 1 1/2	88.9 × 48.3 3.500 × 1.900	86	300 2.07	FM UL
80 × 50 3 × 2	88.9 × 60.3 3.500 × 2.375	86	300 2.07	FM UL
80 × 65 3 × 2 1/2	88.9 × 76.1 3.500 × 3.000	86	300 2.07	FM UL
100 × 25 4 × 1	114.3 × 33.7 4.500 × 1.327	102	300 2.07	FM UL
100 × 32 4 × 1 1/4	114.3 × 42.4 4.500 × 1.669	102	300 2.07	FM UL
100 × 40 4 × 1 1/2	114.3 × 48.3 4.500 × 1.900	102	300 2.07	FM UL
100 × 50 4 × 2	114.3 × 60.3 4.500 × 2.375	102	300 2.07	FM UL
100 × 65 4 × 2 1/2	114.3 × 73.0 4.500 × 2.875	102	300 2.07	FM UL
100 × 65 4 × 2 1/2	114.3 × 76.1 4.500 × 3.000	102	300 2.07	FM UL
100 × 80 4 × 3	114.3 × 88.9 4.500 × 3.500	102	300 2.07	FM UL
125 × 25 5 × 1	139.7 × 33.7 5.500 × 1.327	122	300 2.07	FM UL
125 × 32 5 × 1 1/4	139.7 × 42.4 5.500 × 1.669	122	300 2.07	FM UL
125 × 40 5 × 1 1/2	139.7 × 48.3 5.500 × 1.900	122	300 2.07	FM UL

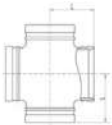
สามทางลดเกลียวใน Threaded DUKELARRSEN



MODEL NO. : XGQT04S

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm L	Woking Pressure Psi/Mpa	Certificate
125 × 50 5 × 2	139.7 × 60.3 5.500 × 2.375	122	300 2.07	FM UL
125 × 65 5 × 2 1/2	139.7 × 76.1 5.500 × 3.000	122	300 2.07	FM UL
150 × 25 6 × 1	168.3 × 33.7 6.625 × 1.327	140	300 2.07	FM UL
150 × 25 6 × 1	165.1 × 33.7 6.500 × 1.327	140	300 2.07	FM UL
150 × 32 6 × 1 1/4	168.0 × 42.4 6.625 × 1.669	140	300 2.07	FM UL
150 × 32 6 × 1 1/4	165.1 × 42.4 6.500 × 1.669	140	300 2.07	FM UL
150 × 40 6 × 1 1/2	168.0 × 48.3 6.625 × 1.900	140	300 2.07	FM UL
150 × 40 6 × 1 1/2	165.1 × 48.3 6.500 × 1.900	140	300 2.07	FM UL
150 × 50 6 × 2	168.3 × 60.3 6.625 × 2.375	140	300 2.07	FM UL
150 × 50 6 × 2	165.1 × 60.3 6.500 × 2.375	140	300 2.07	FM UL
150 × 80 6 × 3	168.3 × 88.9 6.625 × 3.500	140	300 2.07	FM UL
200 × 80 8 × 3	219.1 × 88.9 8.625 × 3.500	175	300 2.07	FM UL
200 × 100 8 × 4	219.1 × 114.3 8.625 × 4.500	175	300 2.07	FM UL

สี่ทาง Grooved DUKELARRSEN



MODEL NO. : XGQT05

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm L	Woking Pressure Psi/Mpa	Certificate
50 2	60.3 2.375	83	300 2.07	FM UL
65 2 1/2	73.0 2.875	95	300 2.07	FM UL
65 2 1/2	76.1 3.000	95	300 2.07	FM UL
80 3	88.9 3.500	108	300 2.07	FM UL
100 4	114.3 4.500	127	300 2.07	FM UL
150 6	168.3 6.625	165	300 2.07	FM UL
150 6	165.1 6.500	165	300 2.07	FM UL
200 8	219.1 8.625	197	300 2.07	FM UL

สี่ทางลด Grooved DUKELARRSEN

MODEL NO.:XGQT09

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm L	Woking Pressure Psi/Mpa	Certificate
150 × 50 6 × 2	165.1 × 60.3 6.500 × 2.375	140	300 2.07	FM UL
150 × 65 6 × 2 1/2	165.1 × 76.1 6.500 × 3.000	140	300 2.07	FM UL
150 × 80 6 × 3	165.1 × 88.9 6.500 × 3.500	140	300 2.07	FM UL
150 × 100 6 × 4	165.1 × 114.3 6.500 × 4.500	140	300 2.07	FM UL
200 × 100 8 × 4	219.1 × 114.3 8.625 × 4.500	175	300 2.07	FM UL

ฝาครอบ DUKELARRSEN

MODEL NO. : XGQT06

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm L	Woking Pressure Psi/Mpa	Certificate
25 1	33.7 1.327	23.8	300 2.07	FM UL
32 1 1/4	42.4 1.669	23.8	300 2.07	FM UL
40 1 1/2	48.3 1.900	23.8	300 2.07	FM UL
50 2	60.3 2.375	23.8	300 2.07	FM UL
65 2 1/2	73 2.875	23.8	300 2.07	FM UL
65 2 1/2	76.1 3.000	23.8	300 2.07	FM UL
80 3	88.9 3.500	23.8	300 2.07	FM UL
100 4	114.3 4.500	25.4	300 2.07	FM UL
125 5	139.7 5.500	25.4	300 2.07	FM UL
150 6	165.1 6.500	25.4	300 2.07	FM UL
150 6	168.3 6.625	25.4	300 2.07	FM UL
200 8	219.1 8.625	32	300 2.07	FM UL
250 10	273.0 10.750	32	300 2.07	FM UL
300 12	323.9 12.750	32	300 2.07	FM UL

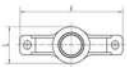
Cap with Eccentric Hole DUKELARRSEN

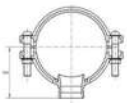
MODEL NO.:XGQT06P

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm L	Woking Pressure Psi/Mpa	Certificate
80 × 25 3 × 1	88.9 × 33.7 3.500 × 1.327	25	300 2.07	FM UL
100 × 25 4 × 1	114.3 × 33.7 4.500 × 1.327	25	300 2.07	FM UL
150 × 25 6 × 1	165.1 × 33.7 6.500 × 1.327	25	300 2.07	FM UL

รัดแยกสามทาง Grooved DUKELARRSEN

(300 psi)



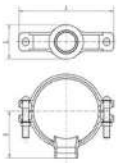


MODEL NO.:XGQT3G

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm					Woking Pressure Psi/Mpa	Certificate
		Hole Dimensions	Ø	L	A	H		
50 × 32 2 × 1 1/4	60.3 × 42.4 2.375 × 1.669	46	75	120	70	69	300 2.07	FM UL
50 × 40 2 × 1 1/2	60.3 × 48.3 2.375 × 1.900	46	75	120	70	68	300 2.07	FM UL
65 × 25 2 1/2 × 1	73.0 × 33.7 2.875 × 1.327	38	93	137	78	77	300 2.07	FM UL
65 × 32 2 1/2 × 1 1/4	73.0 × 42.4 2.875 × 1.669	46	93	137	78	83	300 2.07	FM UL
65 × 32 2 1/2 × 1 1/4	76.1 × 42.4 3.00 × 1.669	46	93	137	78	83	300 2.07	FM UL
65 × 40 2 1/2 × 1 1/2	73.0 × 48.3 2.875 × 1.900	51	93	137	78	83	300 2.07	FM UL
65 × 40 2 1/2 × 1 1/2	76.1 × 48.3 3.000 × 1.900	51	93	137	78	83	300 2.07	FM UL
80 × 25 3 × 1	88.9 × 33.7 3.500 × 1.327	38	114	152	83	77	300 2.07	FM UL
80 × 32 3 × 1 1/4	88.9 × 42.4 3.500 × 1.669	46	114	152	85	83	300 2.07	FM UL
80 × 40 3 × 1 1/2	88.9 × 48.3 3.500 × 1.900	51	114	152	85	93	300 2.07	FM UL
80 × 50 3 × 2	88.9 × 60.3 3.500 × 2.375	64	114	152	85	99	300 2.07	FM UL
100 × 25 4 × 1	114.3 × 33.7 4.500 × 1.327	38	140	180	97	77	300 2.07	FM UL
100 × 32 4 × 1 1/4	114.3 × 42.4 4.500 × 1.669	46	140	180	97	83	300 2.07	FM UL
100 × 40 4 × 1 1/2	114.3 × 48.3 4.500 × 1.900	51	140	180	97	92	300 2.07	FM UL
100 × 50 4 × 2	114.3 × 60.3 4.500 × 2.375	64	140	180	99	99	300 2.07	FM UL
100 × 65 4 × 2 1/2	114.3 × 73.0 4.500 × 2.875	70	140	180	99	122	300 2.07	FM UL
100 × 65 4 × 2 1/2	114.3 × 76.1 4.500 × 3.000	70	140	180	99	122	300 2.07	ซ FM UL
100 × 80 4 × 3	114.3 × 88.9 4.500 × 3.500	89	140	180	102	129	300 2.07	FM UL
125 × 50 5 × 2	139.7 × 60.3 5.500 × 2.375	64	168	220	112	100	300 2.07	FM UL
125 × 65 5 × 2 1/2	139.7 × 76.1 5.500 × 3.000	70	168	220	112	122	300 2.07	FM UL
125 × 80 5 × 3	139.7 × 88.9 5.500 × 3.500	89	168	220	113	134	300 2.07	FM UL
150 × 32 6 × 1 1/4	168.3 × 42.4 6.625 × 1.669	46	198	248	130	83	300 2.07	FM UL
150 × 40 6 × 1 1/2	168.3 × 48.3 6.625 × 1.900	51	198	248	130	94	300 2.07	FM UL
150 × 50 6 × 2	168.3 × 60.3 6.625 × 2.375	64	198	248	130	99	300 2.07	FM UL
150 × 50 6 × 2	165.1 × 60.3 6.250 × 2.375	64	187	242	118	99	300 2.07	FM UL

รัดแยกสามทาง Grooved DUKELARRSEN

(300 psi)

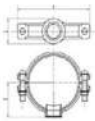


MODEL NO.:XGQT3G

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm					Woking Pressure Psi/Mpa	Certificate
		Hole Dimensions	Ø	L	A	H		
150 × 65 6 × 2 1/2	168.3 × 73.0 6.625 × 2.875	70	198	248	131	122	300 2.07	FM UL
150 × 65 6 × 2 1/2	165.1 × 73.0 6.500 × 2.875	70	194	248	126	122	300 2.07	FM UL
150 × 80 6 × 3	165.1 × 88.9 6.500 × 3.500	89	194	248	125	139	300 2.07	FM UL
150 × 80 6 × 3	168.3 × 88.9 6.625 × 3.500	89	198	248	128	136	300 2.07	FM UL
150 × 100 6 × 4	168.3 × 114.3 6.625 × 4.500	114	198	248	133	157	300 2.07	FM UL
150 × 100 6 × 4	165.1 × 114.3 6.500 × 4.500	114	194	248	125	159	300 2.07	FM UL
200 × 50 8 × 2	219.1 × 60.3 8.625 × 2.375	64	250	311	146	100	300 2.07	FM UL
200 × 65 8 × 2 1/2	219.1 × 73.0 8.625 × 2.875	70	250	311	152	130	300 2.07	FM UL
200 × 65 8 × 2 1/2	219.1 × 76.1 8.625 × 3.000	70	250	311	152	130	300 2.07	FM UL
200 × 80 8 × 3	219.1 × 88.9 8.625 × 3.500	89	250	311	152	137	300 2.07	FM UL
200 × 100 8 × 4	219.1 × 114.3 8.625 × 4.500	114	250	311	153	162	300 2.07	FM UL

รัดแยกสามทาง เกลียวใน Threaded DUKELARRSEN

(300 psi)

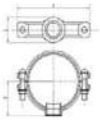


MODEL. : XGQT3S

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm					Woking Pressure Psi/Mpa	Certificate
		Hole Dimensions	Ø	L	A	H		
50 × 15 2 × 1/2	60.3 × 21.3 2.375 × 0.825	38	75	120	50	54	300 2.07	FM UL
50 × 20 2 × 3/4	60.3 × 26.7 2.375 × 1.05	38	75	120	50	54	300 2.07	FM UL
50 × 25 2 × 1	60.3 × 33.7 2.375 × 1.327	38	75	120	57	69	300 2.07	FM UL
50 × 32 2 × 1 1/4	60.3 × 42.4 2.375 × 1.669	46	75	120	57	69	300 2.07	FM UL
50 × 40 2 × 1 1/2	60.3 × 48.3 2.375 × 1.900	46	75	120	61	68	300 2.07	FM UL
65 × 15 2 1/2 × 1/2	73.0 × 21.3 2.875 × 0.825	38	93	139	58	54	300 2.07	FM UL
65 × 20 2 1/2 × 3/4	73.0 × 26.7 2.875 × 1.050	38	93	139	58	54	300 2.07	FM UL
65 × 25 2 1/2 × 1	73.0 × 33.7 2.875 × 1.327	38	93	139	61	77	300 2.07	FM UL
65 × 25 2 1/2 × 1	76.1 × 33.7 3.000 × 1.327	38	102	144	67	77	300 2.07	FM UL
65 × 32 2 1/2 × 1 1/4	73.0 × 42.4 2.875 × 1.669	46	93	139	61	83	300 2.07	FM UL
65 × 32 2 1/2 × 1 1/4	76.1 × 42.4 3.000 × 1.669	46	102	144	67	83	300 2.07	FM UL
65 × 40 2 1/2 × 1 1/2	73.0 × 48.3 2.875 × 1.900	51	93	139	61	83	300 2.07	FM UL
65 × 40 2 1/2 × 1 1/2	76.1 × 48.3 3.000 × 1.900	51	102	144	67	83	300 2.07	FM UL

รัดแยกสามทาง เกลียวใน Threaded DUKELARRSEN

(300 psi)



MODEL. : XGQT3S

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm					Woking Pressure Psi/Mpa	Certificate
		Hole Dimensions	Ø	L	A	H		
65 × 50 2 1/2 × 2	73.0 × 60.3 2.875 × 2.375	51	93	139	66	83	300 2.07	FM UL
65 × 50 2 1/2 × 2	76.1 × 60.3 3.000 × 2.375	51	102	144	67	83	300 2.07	FM UL
80 × 15 3 × 1/2	88.9 × 21.3 3.500 × 0.825	38	114	155	59	59	300 2.07	FM UL
80 × 25 3 × 1	88.9 × 33.7 3.500 × 1.327	38	114	155	74	77	300 2.07	FM UL
80 × 32 3 × 1 1/4	88.9 × 42.4 3.500 × 1.669	46	114	155	73	83	300 2.07	FM UL
80 × 40 3 × 1 1/2	88.9 × 48.3 3.500 × 1.900	51	114	155	73	93	300 2.07	FM UL
80 × 50 3 × 2	88.9 × 60.3 3.500 × 2.375	64	114	155	78	99	300 2.07	FM UL
100 × 25 4 × 1	114.3 × 33.7 4.500 × 1.327	38	140	181	83	77	300 2.07	FM UL
100 × 32 4 × 1 1/4	114.3 × 42.4 4.500 × 1.669	46	140	181	95	83	300 2.07	FM UL
100 × 40 4 × 1 1/2	114.3 × 48.3 4.500 × 1.900	51	140	181	95	92	300 2.07	FM UL
100 × 50 4 × 2	114.3 × 60.3 4.500 × 2.375	64	140	181	93	100	300 2.07	FM UL
100 × 65 4 × 2 1/2	114.3 × 73.0 4.500 × 3.000	70	140	181	93	122	300 2.07	FM UL
100 × 65 4 × 2 1/2	114.3 × 76.1 4.500 × 3.000	70	140	181	93	122	300 2.07	FM UL
100 × 80 4 × 3	114.3 × 88.9 4.500 × 3.500	89	140	181	93	136	300 2.07	FM UL
125 × 25 5 × 1	139.7 × 33.7 5.500 × 1.327	38	168	210	100	77	300 2.07	FM UL
125 × 32 5 × 1 1/4	139.7 × 42.4 5.500 × 1.669	46	168	220	100	83	300 2.07	FM UL
125 × 40 5 × 1 1/2	139.7 × 48.3 5.500 × 1.900	51	168	220	100	92	300 2.07	FM UL
125 × 50 5 × 2	139.7 × 60.3 5.500 × 2.375	64	168	220	103	100	300 2.07	FM UL
125 × 65 5 × 2 1/2	139.7 × 76.1 5.500 × 3.000	70	168	220	103	122	300 2.07	FM UL
125 × 80 5 × 3	139.7 × 88.9 5.500 × 3.500	89	168	220	113	134	300 2.07	FM UL
150 × 25 6 × 1	168.3 × 33.7 6.625 × 1.327	38	198	248	120	77	300 2.07	FM UL
150 × 25 6 × 1	165.1 × 33.7 6.500 × 1.327	38	194	248	106	77	300 2.07	FM UL
150 × 32 6 × 1 1/4	168.3 × 42.4 6.625 × 1.669	46	198	248	120	83	300 2.07	FM UL
150 × 32 6 × 1	165.1 × 42.4 6.500 × 1.669	46	194	248	112	83	300 2.07	FM UL
150 × 40 6 × 1 1/2	168.3 × 48.3 6.625 × 1.900	51	198	248	120	94	300 2.07	FM UL
150 × 40 6 × 1 1/2	165.1 × 48.3 6.500 × 1.900	51	194	248	122	94	300 2.07	FM UL
150 × 50 6 × 2	168.3 × 60.3 6.625 × 2.375	64	198	248	120	99	300 2.07	FM UL
150 × 50 6 × 2	165.1 × 60.3 6.500 × 2.375	64	194	248	116	99	300 2.07	FM UL
150 × 65 6 × 2 1/2	168.3 × 76.1 6.625 × 3.000	70	198	248	128	122	300 2.07	FM UL
150 × 65 6 × 2 1/2	165.1 × 76.1 6.500 × 3.000	70	194	248	106	122	300 2.07	FM UL
150 × 80 6 × 3	168.3 × 88.9 6.625 × 3.500	89	198	248	128	136	300 2.07	FM UL
150 × 80 6 × 3	165.1 × 88.9 6.500 × 3.500	89	194	248	125	136	300 2.07	FM UL

รัดแยกสามทาง เกลียวใน Threaded DUKELARRSEN

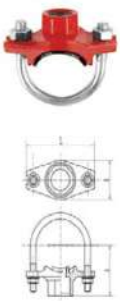
(300 psi)

MODEL. : XGQT3S

Nominal Size mm/in	Pipe OD mm/in	Dimensions mm					Woking Pressure Psi/Mpa	Certificate
		Hole Dimensions	Ø	L	A	H		
150 × 100 6 × 4	168.3 × 114.3 6.625 × 4.500	114	198	248	128	136	300 2.07	FM UL
200 × 25 8 × 1	219.1 × 33.7 8.625 × 1.327	38	250	311	146	77	300 2.07	FM UL
200 × 32 8 × 1 1/4	219.1 × 42.4 8.625 × 1.669	46	250	311	146	83	300 2.07	FM UL
200 × 40 8 × 1 1/2	219.1 × 48.3 8.625 × 1.900	51	250	311	146	94	300 2.07	FM UL
200 × 50 8 × 2	219.1 × 60.3 8.625 × 2.375	64	250	311	146	100	300 2.07	FM UL
200 × 65 8 × 2 1/2	219.1 × 76.1 8.625 × 3.000	70	250	311	146	130	300 2.07	FM UL
200 × 80 8 × 3	219.1 × 88.9 8.625 × 3.500	89	250	311	152	137	300 2.07	FM UL
200 × 100 8 × 4	219.1 × 114.3 8.625 × 4.500	114	250	311	153	162	300 2.07	FM UL

รัดแยกสามทาง U-Bolt DUKELARRSEN

(300 psi)



MODEL. : XGQT3U

Nominal Size mm/in	Pipe OD mm/in	Bolt Size mm	Dimensions mm				Woking Pressure Psi/Mpa	Certificate
			Hole Dimensions	L	A	H		
25 × 15 1 × 1/2	33.7 × 21.3 1.327 × 0.825	M10×70	24	76	49	43	300 2.07	FM UL
25 × 20 1 × 3/4	33.7 × 26.9 1.327 × 1.050	M10×70	24	84	58	43	300 2.07	FM UL
32 × 15 1 1/4 × 1/2	42.4 × 21.3 1.669 × 0.825	M10×78	30	98	45	56	300 2.07	FM UL
32 × 20 1 1/4 × 3/4	42.4 × 26.9 1.669 × 1.050	M10×78	30	98	45	56	300 2.07	FM UL
32 × 25 1 1/4 × 1	42.4 × 33.7 1.669 × 1.327	M10×78	30	98	54	56	300 2.07	FM UL
40 × 15 1 1/2 × 1/2	48.3 × 21.3 1.900 × 0.825	M10×78	30	106	48	59	300 2.07	FM UL
40 × 20 1 1/2 × 3/4	48.3 × 26.9 1.900 × 1.050	M10×78	30	106	54	59	300 2.07	FM UL
40 × 25 1 1/2 × 1	48.3 × 33.7 1.900 × 1.327	M10×78	30	106	58	59	300 2.07	FM UL
50 × 15 2 × 1/2	60.3 × 21.3 2.375 × 0.825	M10×92	30	120	54	59	300 2.07	FM UL
50 × 20 2 × 3/4	60.3 × 26.9 2.375 × 1.050	M10×92	30	120	56	59	300 2.07	FM UL
50 × 25 2 × 1	60.3 × 33.7 2.375 × 1.327	M10×92	30	120	66	59	300 2.07	FM UL
65 × 15 2 1/2 × 1/2	73.0 × 21.3 2.875 × 0.825	M10×108	30	139	61	59	300 2.07	FM UL
65 × 15 2 1/2 × 1/2	76.1 × 21.3 3.000 × 0.825	M10×108	30	139	61	59	300 2.07	FM UL
65 × 20 2 1/2 × 3/4	73.0 × 26.9 2.875 × 1.050	M10×108	30	139	63	59	300 2.07	FM UL
65 × 20 2 1/2 × 3/4	76.1 × 26.9 3.000 × 1.050	M10×108	30	139	67	59	300 2.07	FM UL
65 × 25 2 1/2 × 1	73.0 × 33.7 2.875 × 1.327	M10×108	30	139	70	59	300 2.07	FM UL
65 × 25 2 1/2 × 1	76.1 × 33.7 3.000 × 1.327	M10×108	30	139	74	59	300 2.07	FM UL

CASTING

As for the chemical composition, we do test and analysis every batch of the casting parts to ensure the chemical components meet the design requirements. For every package of the molten iron, there is a tensile test specimen in the lab, we check it one by one. So we can ensure that the casting always meet the requirements, and ensure every coupling and fitting are safe enough when it works under the rated working pressure.

BOLTS AND NUTS

As for the bolts and nuts, we choose 40 Cr as its material. Mechanical property of the bolts and nuts can reach to grade 8.8 after heat treatment. We can only use one wrench to install them, and the bolts and nuts are much better in reliability and fastness.

GASKET RING

MATERIAL COMPOSITION	APPLICABLE TEMPERATURE	COLOR	APPLICATION SCOPE
EPDM	-34°C~+150°C (-30°F~+230°F)	green	Recommended for hot water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. UL classified in accordance with ANSI/NSF 61 or cold+86°F(+30°C) and hot +180°F (+82°C) potable water service. Not recommended for petroleum service.
Silicon rubber	-40°C~+177°C (-40°F~+350°F)	white	Recommended for high temperature dry air and some high temperature chemical products.
Nitrile rubber	-29°C~+82°C (-20°F~+180°F)	Orange	Recommended for petroleum products, mineral oil, plant oil, hot water, temperature over 65 °C is not allowed.

Note: 1.gasket rings of different material will be used for different mediums.

QUALITY CONTROL

The certified product depended on the advanced scientific production equipment.Our casting production use casting air of wet-type clay so as to guarantee the need of volume production..Our casting production selects advanced processing system of complete regenerative clay,which adopts PLC integrating control so that the quality of clay mixed is stable and reliable.We use two diffenert kinds of casting sand to enhance the surface smoothness.The modeling applies the air microseism compaction modeling line and two –sided template with escaping boxmodeling line,the size precision and the size stability of the product both are great.The iron smelting uses the domestic advanced intermediate frequency inductive oven and carried on test and adjustment by the direct-reading spectrometer an the quality controller of molten iron to avoid the entering of the harmful impurity

• CASTING SAND TEST

Casting sand is one of the most important factor of enhancing the surface smoothness of the products. Our company introduced advanced casting sand analysis equipment, in the light of the property of the casting sand such as the pressure to sands, moisture content, gas permeability, mud content, wet-thermal tensile strength,theargil, thebudgust,and the blue absorption power, processing a strict analysis testing to enhance the quality of casting sand, so as to improve the fineness and the qualified rate of the products. Really attach importance to the details of the product's quality.

• METALLOGRAPHIC TEST

Metallographic test mainly processing the tests to the component of the casting part, to ensure the mechanical properties of the products. The testing adopt 500-600 times optical microscope to process the testing of molten iron's nodularization rate, to ensure the nodularization rate of every cast of the molten iron to be above the grade 3. This testing is one of the important part of production process to guarantee the quality.

• CHEMICAL COMPONENT TEST

There are complete equipments in the Chemical Laboratory, such as molten iron analysis equipment, carbon and silicon analysis equipment, spectrophotometer, etc. They are used to process the fast and accurate tests to the main components including carbon, silicon, manganese, sulfur, phosphorus and the microelements such as tombarthite and magnesium in the raw materials and finished products, to ensure the scientific proportioning of the raw materials. At the same time proceeding the online control of the components in the production process, to ensure every process of the production meets the requirements by applying the scientific composition ratio.

• MECHANICAL PROPERTY TEST

Mechanical property testing laboratory introduced Computerized Electro-hydraulic Servo Universal Testing Machine to proceed the whole series of stretching, compressing, bending tests for the materials such as bolts and nuts which are required to reach the mechanical property performance index. By testing, the torque of bolts reach to grade 8.8, nuts reach to grade 8. All the casting products of our foundry reach the criteria of QT450-10,The hardness of our cast fittings, bolts and nuts are reach criterias of FM1920, UL213 by Blovi hardness testing.

• GASKET RING SEALING TEST

The gasket ring is the important part of grooved joint fittings. The quality of gasket ring directly related to the quality guarantee period of construction projects. All the gasket rings of our products are produced by subsidiary factory, so that to ensure the scientific formula and optimization of production process. At the same time, every batch of the gasket rings are proceeded to strictly property test, including hardness, strength, stretching rate, aging in hot air, oil resistance, etc. The tests prove that every batch of the gasket rings meet the criteria of FM1920, UL213, and guarantee a long time usage period.

• GROOVED JOINT FITTING PROPERTY TEST

Grooved joint fitting property laboratory meet the requirement and criteriaof FM,UL. Including hydrostaticpressure test, compression strength, withstanding sealing performance,bending moment, torque, vibration, low-temperature resistance, refractory property, etc. The evaluation and routine tests for the new products, and the product performance tests are all conducted in this laboratory. And every batch of grooved joint fittings are all proceeded the destructive test, to ensure meet the criteria of FM1920, UL213

INSTALLATION INSTRUCTION FOR RIGID &FLEXIBLE COUPLING

PIPE PREPARATION

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.

LUBRICATE GASKET

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.

GASKET INSTALLATION

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.

HOUSING INSTALLATION

Remove one set of bolt & nut and loosen the other nut. Place one housing over the gasket, making sure the housing keys fit into the pipe grooves. Swing the other housing over the gasket and into the grooves on both pipes. Re-insert the bolt and connect two housings.

TIGHTEN NUTS

Firstly hand-tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.

ASSEMBLY COMPLETED-RIGID COUPLING

For Rigid Coupling, keep the gaps at bolt pads evenly spaced. Gaskets can' t be seen visually.

ASSEMBLY COMPLETED-FLEXIBLE COUPLING

For Flexible Coupling, two housings should be iron to iron connected. Gaskets can' t be seen visually.

Caution
> Proper torquing of bolts is required to obtain specified performance.
> Over torquing of the bolts may result in damage to the bolt and the product which could result in pipe joint separation.
> Under torquing of the bolts may result in lower pressure retention capabilities, lower bend load capabilities, joint fitting leakage and pipe joint separation. Pipe joint separation may result in significant property damage and serious injury.

* Leak test has to be done in 3 different pressure as the below table

Hydrostatic Test		
Test No.	Water Pressure** (constant)	Time
1st	150%	30 mins
2nd	100%	30 mins
3rd	25%	30 mins

** Please make sure that fire sprinkler head is not yet installed as fire sprinkler head is with pressure of 225 psi resistance maximum.

INSTALLATION INSTRUCTION FOR THREADED & GROOVED MECHANICAL TEE

1.PIPE PREPARATION

Clean the gasket sealing surface within 16mm of the hole and visually inspect the sealing surface for defects that may prevent proper sealing of the gasket. Don' t drill the hole on weld line.

2.REMOVE BURRS

If any burrs or slug exists at the pipe hole, please remove them before assembly, to protect the gasket and avoid leakage.

3.GASKET INSTALLATION

Insert the gasket into outlet housing making sure the tab in the gasket line up with the tab recesses in the housing. Align outlet housing over the pipe hole making sure that the locating collar is in the pipe hole.

4.ALIGNMENT

Align the strap around the pipe, insert the bolts and tighten the nuts.

5.TIGHTEN NUTS

Alternatively and evenly tighten the nuts to the specified bolt torque.

6.ASSEMBLY COMPLETED

There should be even gaps on two sides between upper and lower housings.

Caution
> Proper torquing of bolts is required to obtain specified performance.
> Over torquing of the bolts may result in damage to the bolt and the product which could result in pipe joint separation.
> Under torquing of the bolts may result in lower pressure retention capabilities, lower bend load capabilities, joint fitting leakage and pipe joint separation. Pipe joint separation may result in significant property damage and serious injury.

INSTALLATION INSTRUCTION FOR GROOVED FLANGE

1.PIPE PREPARATION

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper seaing.

2. LUBRICATE GASKET

Check gasket to be sure it's compatible for the intended service. Apply lubricant to the outside and sealing lips of the gasket.

3. GASKET INSTALLATION

Slip the gasket over pipe end, with the gasket opening side towards "A". Make sure the gasket sealing lip is even with pipe end.

4. HOUSING INSTALLATION

Remove bolts and nuts, place two housings over the gasket, making sure the housing keys fit into the pipe grooves. Re-insert the bolts and hand tighten the nuts.

5. TIGHTEN NUTS

Securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.

6. ASSEMBLY COMPLETED AND CONNECT MATING FLANGE

Align flange bolt holes with mating flange(or valve)bolt holes. Insert a standard flange bolt through bolt hole and hand tighten a nut. Insert another bolt opposite the first and hand tighten a nut. Continue this until all bolt holes are fitted.

Caution
> Proper torquing of bolts is required to obtain specified performance.
> Over torquing of the bolts may result in damage to the bolt and the product which could result in pipe joint separation.
> Under torquing of the bolts may result in lower pressure retention capabilities, lower bend load capabilities, joint fitting leakage and pipe joint separation. Pipe joint

No.	Test	Standard
1	Vacuum Test	Grooved couplings,grooved reducing couplings, grooved split flanges,mechanical tees,and plain end couplings shall be able to withstand the effects of vacuum conditions encountered when sprinkler systems are drained.Samples of each nominal size and style of gasketed coupling and fitting shall be subjected to an internal vacuum of 25 inHg(85kpa) for a duration of 5 minutes. Following the vacuum test, the test assembly shall be pneumatically pressurize from zero to 50 psi(345kPa) while submerged in a water tank.There shall be no leakage or permanent deformation as a result of this test.
2	Hydrostatic Strength Test	All items shall be able to withstand an internal hydrostatic pressure equal to Hydrostatic Test tabel on page 22
3	Air Leakage Test	The coupling assembly shall be pressurized with air to 3 bar + 0.5/-0 bar. The assembly shall be immersed in water to manifest that there is no visible leakage.
4	Moment Test	The moment resistance shall be demonstrated while the test assembly is internally pressurized to the rated working pressure.Then a force was applied to the test assembly.There shall be no leakage,cracking, or fitting or coupling pull-off as a result of this test.
5	Hot Gasket Test	Standard gaskets shall be assembled to short length pipe,and subjected to 275°F(135℃)for a duration of 45 days.After exposure,the test assembly shall be submerged in a water tank and subjected to an under water air leakage test from zero to 50psi(0-345kpa)in order to evaluate for leakage.After the air under water testing is completed,the test assembly shall be disassembled and the gasket shall not crack when squeezed or twisted.The gasket shall then be visually inspected for signs of cracking,tearing,or excessive degradation as a result of this test.
6	Cold Gasket Test	The low temperature exposure shall consist of -40°F(-40℃)air exposure for 4 days.After exposure, the assembly while submerged in -40°F(-40℃)antifreeze,shall be pneumatically pressurized from 0 to 50psi(0-345kpa).No leakage shall occur.The assembly shall then be allowed to warm up to room temperature and then be disassembled.The gasket,after removal from the assembly,shall not crack when squeezed together from any two diametrically opposite points,or twisted into a figure eight shape.
7	Flame Test	The test shall be conducted in a room free from air draught.The test joint is mounted,U-bent on the test apparatus and filled with water.The angle corresponds to the angle documented as a result of the test subsequently the test joint is drained.The fuel pan is placed centrally below the pipe joint.Fuel is filled into the pan and the fuel is ignited.Burning 5 min for nominal diameters＜DN100;8 min for nominal diameters≥DN100 for reducer couplings the dimension of the smaller nominal diameter shall apply for the determination of the burning time.The flame shall be extinguished immediately once the burning time has expired (5min or 8min)and the test joint shall be cooled down.For cooling the test joint is immediately sprayed with water until steam formation is no longer visible,but at least for 3min. The tested joint is then filled completely with water and exposed to a test presure which corresponds to the maximum permissible pressure and is checked visibly for leaks.Water may leak in form of drops, however,not inform of flowing water or water spray.The test joint is then pressure relieved(force and internal pressure).

No.	Test	Standard
8	Cycling Pressure Resistance(Water Hammer Test)	Prior to the cycling,assemblies shall be subjectd to a hydrostatic strength test to the rated working pressure,175psi(1205kpa)minimum,for a duration of 5minutes,without leakage or cracking.Assemblies shall then be subjected to 20000 cycles from zero pressur to the rated working pressure,175psi(1205kpa)minimum.After cycling,the test assembly shall be tested hydrostatic strength and maintain 5 minutes without leakage and cracking.
9	Friction Loss Determination	The construction and installation of the coupling or fitting shall be such that obstruction to the passage of water through the coupling or fitting body is minimal. The loss in pressure through the coupling or fitting shall not exceed 5.0 psi (35 kpa) at a flow producing a velocity of 20 ft/s (6.1 m/s) in Schedule 40 steel pipe of the same nominal diameter as the coupling or fitting.
10	Leakage Test-Assembly without Gasket	Leakage from a gasket-less coupling assembly or fitting shall not exceed that of an operating sprinkler head whose discharge coefficient(K-factor)is 5.3 to 5.8 gal/min(psi)1/2[76-84 L/min(bar)1/2].This test is for nominal pipe sizes normally associated with over-head piping, less than or equal to 12 in. NPS(300 mm).
11	Torsion test	This test is related to pipe jointsDN 40 only. The test joint is filled with water and exposed once to the maximum permissible pressure and is then pressure relieved again. Subsequently the test joint is fixed on one pipe end and an increased torque is applied to the other pipe end. At the pressure-less test the pipe joint shall be able to transmit a torque of up to 80 Nm from one pipe end to the other pipe end without any torsion of the pipe ends against each other.
12	Flexibility Test for Flexible Fittings	With the assembly pressurized to its rated pressure, a bending moment is to be applied to deflect the joint to the maximum angle specified by the manufacturer, while not less than 1 degree for nominal pipe diameters less than 8 inches (203.2mm) or deviation of 0.5 degrees for 8 inches(203.2mm) and larger. Observations are to be made for leakage or pipe damage.
13	Seismic Evaluation	In order to evaluate the use of grooved couplings in Earthquake zones within 50 through 500 years, test assemblies utilizing flexible couplings and short lengths of steel pipe, in the same nominal size, will be subjected to cyclic testing. The test will deflect the assembly to the manufacturer's maximum recommended angle in the forward and reverse direction for a total 15 cycles with the internal pressure equal to the rated working pressure. There shall be no leakage, cracking, or rupture as a result of the test.
14	Displacement	The coupling shall not leak during any period of the tests, within the manufacturer's stated limitations for angular deflection or lateral displacement of associated pipework.
15	Hydrostatic fluctuation pressure test	The coupling assembly shall be pressurized with water to a gauge pressure of 10 bar±1 bar for 2min, ±30s/-0s to establish a datum. The assembly shall then be drained before being subjected to the greatest vacuum attainable to a maximum of 600mm a/mercury or -0.8bar +0bar/-0.1 bar for 2min +30s/-0s, and allowed to return to atmospheric pressure in not less than 5s. The assembly shall then be pressurized with water to 10 bar±1 bar for 2min, ±30s/-0s. The assembly shall be examined for leakage throughout the test. The relative movement of each pipe shall be recorded at the greatest vacuum and at each pressure. There shall be no leakage.
16	Fire Test	If a gasketed pipe coupling or fitting employs non-ferrous materials for its substantial structural components, or if in the judgment of FM Approvals, the design is otherwise suspect with respect to fire resistance, a fire test shall be conducted. A representative size assembled joint without a gasket shall be exposed to a 1000°F (538°C) fire environment for 5 minutes. The assembly shall be dry for the duration of this exposure. Immediately after the exposure, a water flow shall be kept on applying to the joint till the assembly is cool enough for touching. No cracking or distortion of any part of the coupling or fitting shall occur. The coupling or fitting shall then be disassembled and the gasket be installed. After reassembling, the joint shall be hydrostatically tested, as described in the hydrostatic test.

DUKELARRSEN®

Grooved Coupling & Grooved Fitting

ผลิตภัณฑ์ผ่านมาตรฐานการทดสอบ **UL/ FM**

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