DI GROOVED MECHANICAL TEE-THREADED OUTLET

Type: 3J **Doc No: DS-400-3J-01-E**

1.0 PRODUCT OVERVIEW

Threaded outlet mechanical tee is a saddle-shaped joint for connecting one side of a pipe in the middle of a straight pipe, the branch pipe is a threaded connection.

Dimensions:

1"(DN25)– 10"(DN250)

Design Standard:

ISO6182, AWWA C606, GB 5135.11

Connection Standard:

ASME B36.10, ASTM A53-A53M, ISO 4200

Working Pressure:

175PSI-300PSI

Application:

Threaded outlet mechanical tee is suitable for medium and low pressure pipeline systems with nominal pressure 175-300 PSI, nominal size DN25-DN250, temperature range of - 20 ℃-+180℃, which are widely applied in water supply and drainage, fire-fighting, air conditioning, etc.

Pipe Material:

Welded and seamless rolled steel pipes according to ASME B36.10, ASTM A53-A53M, ISO 4200, GB/T 21835

Surface Treatment:

Sign Off:

Owner:_____ Contractor:_____ Engineer: _____

Location:_____ Date:_____ Approved& Date: _____

☐ Electrophoretic painting
☐ Epoxy power painting
☐ Hot-dip galvanizing
☐ Black
☐ Others would be available upon clients' detailed request

2.0 APPROVALS

3.0 SPECIFICATIONS

Housing:

ASTM A536, Ductile iron 65-45-12

Gasket:

1、EPDM Gasket，code E：
Temperature：-34℃～+110℃ （-30～+230℉）；
Applicable media: water, gas, diluted acid (base), and other chemicals (excluding hydrocarbons)
Note: Strictly prohibit the use of oil and hydrocarbons.
2、NBR，code D:
Temperature：-29℃～+82℃ （-20～+180℉）;
Applicable media: Petroleum products, vegetable oils, mineral oils, etc.
Note: strictly prohibit use with high temperature substances.
3、Silicone Rubber, code S：
Temperature: -40℃～+177℃ （-40～+350℉）
Applicable media: High temperature and dry air and some high temperature chemicals, drinking water and so on.
4、Chloroprene Rubber，code LD：
Temperature：-32℃～+82℃ （-26～+180℉）
Applicable media: sea water
5、Fluororubber, code F：
Temperature: -20℃～+180℃
Applicable media: Hot oil, some chemical products, good oxidation resistance.

Bolts/Nuts:

ANSI Heavy Hex Nut

Sign Off:
Owner:_____ Contractor:_____ Engineer: _____
Location:_____ Date:_____ Approved& Date: _____

1. Material: SAE J995 2.
2. Thread: ANSI B 1.1-1982, class 2B.
3. Surface Treatment: Zinc electroplated per ASTM B633
CLASS FE/ZN5 TYPE Ⅲ , thickness ≥ 5μm per class SC1.

Metric Heavy Hex Nut

1. Material: ISO 898-2:1992 \ GB/T3098.2-2000 Class 8.
2. Thread: ISO 261, tolerance 6h for M10& M12, 7h for M16 and above.
3. Surface Treatment: Zinc Electroplated followed by a yellow chromate dip per ISO 2081 FE/ZN5, ISO4520 CLASS 1A.

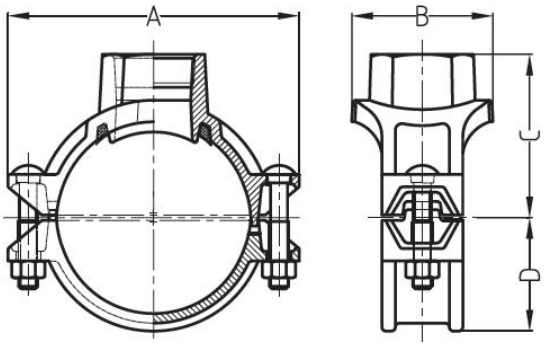
ANSI Oval Neck Track Bolt

1. Material: SAE J429 5.
2. Thread: UNC thread per ANSI B 1.1 Class 2A.
3. Surface Treatment: Silver chromate electroplated per ASTM B633
CLASS FE/ZN5 TYPE Ⅲ, thickness ≥ 5μm per class SC1.

Metric Oval Neck Track Bolt

1. Material: ISO 898-1: 1992 \ GB/T3098.1-2000 Class 8.8.
2. Thread: ISO metric thread per ISO 261, tolerance 6h.
3. Surface Treatment: Yellow chromate electroplated per ISO 2081 FE/ZN5 ISO4520 CLASS 1A.

4.0 DIMENSIONS AND PERFORMANCE



Sign Off:

Owner:_____ Contractor:_____ Engineer: _____

Location:_____ Date:_____ Approved& Date: _____

Nominal Size	Pipe O.D	Working Pressure	Hole Dia. mm/in	Dimensions				Bolt Size
				A	B	C	D	
mm/in	mm/in	PSI/Mpa	+1.6,0/+0.063,0	mm/in	mm/in	mm/in	mm/in	mm/in
25X10	33.7X17.2	300	23.5	86	46	26	24.5	M8X30
1X3/8	1.315X0.677	2.07	0.92	3.38	1.81	1.02	0.96	
25X15	33.7X21.3	300	23.5	86	46	26	24.5	M8X30
1X1/2	1.315X0.825	2.07	0.92	3.38	1.81	1.02	0.96	
25X20	33.7X26.9	300	23.5	86	52	41	24.5	M8X30
1X3/4	1.315X1.050	2.07	0.92	3.38	2.05	1.61	0.96	
25X25	33.7X33.7	300	23.5	86	57	45	24.5	M8X30
1X1	1.315X1.315	2.07	0.92	3.38	2.24	1.77	0.96	
32X10	42.4X17.2	300	30	95.5	53	32	29	M10X35
11/4X3/8	1.660X0.677	2.07	1.18	3.76	2.09	1.26	1.14	
32X15	42.4X21.3	300	30	95.5	57	32	29	M10X35
11/4X1/2	1.660X0.825	2.07	1.18	3.76	2.24	1.26	1.14	
32X20	42.4X26.9	300	30	95.5	57	44	29	M10X35
11/4X3/4	1.660X1.050	2.07	1.18	3.76	2.24	1.73	1.14	
32X25	42.4X33.7	300	30	95.5	57	53	29	M10X35
11/4X1	1.660X1.315	2.07	1.18	3.76	2.24	2.09	1.14	
40X10	48.3X17.2	300	30	101.5	53	34	32.5	M10X35
11/2X3/8	1.900X0.677	2.07	1.18	3.99	2.09	1.34	1.28	
40X15	48.3X21.3	300	30	101.5	57	35.5	32.5	M10X35
11/2X1/2	1.900X0.825	2.07	1.18	3.99	2.24	1.4	1.28	
40X20	48.3X26.9	300	30	101.5	57	47.5	32.5	M10X35
11/2X3/4	1.900X1.050	2.07	1.18	3.99	2.24	1.87	1.28	
40X25	48.3X33.7	300	30	101.5	57	56	32.5	M10X35
11/2X1	1.900X1.315	2.07	1.18	3.99	2.24	2.2	1.28	
50×10	60.3×17.2	300	38	116	68	44	39	3/8×55
2×3/8	2.375×0.677	2.07	1.5	4.57	2.68	1.73	1.54	M10X57
50×15	60.3×21.3	300	38	116	68	60	39	3/8×55
2×½	2.375×0.825	2.07	1.5	4.57	2.68	2.36	1.54	M10X57
50×20	60.3×26.9	300	38	116	68	60	39	3/8×55
2×¾	2.375×1.050	2.07	1.5	4.57	2.68	2.36	1.54	M10X57
50×25	60.3×33.7	300	38	116	68	60	39	3/8×55
2×1	2.375×1.315	2.07	1.5	4.57	2.68	2.36	1.54	M10X57
50×32	60.3×42.4	300	45	116	76	65	39	3/8×55
2×1¼	2.375×1.660	2.07	1.75	4.57	2.99	2.56	1.54	M10X57

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50×40 2×1½	60.3×48.3 2.375×1.900	300 2.07	45 1.75	116 4.57	76 2.99	65 2.56	39 1.54	3/8×55 M10X57

Nominal Size	Pipe O.D	Working Pressure	Hole Dia mm/in	Dimensions				Bolt Size
				A	B	C	D	
mm/in	mm/in	PSI/Mpa	+1.6,0/+0.063,0	mm/in	mm/in	mm/in	mm/in	mm/in
65×20 2½×¾	73.0×26.9 2.875×1.050	300 2.07	38 1.5	137 5.39	71 2.76	68 2.67	49 1.93	1/2×70 M12X70
65×25 2½×1	73.0×33.7 2.875×1.315	300 2.07	38 1.5	137 5.39	71 2.76	70 2.75	49 1.93	1/2×70 M12X70
65×32 2½×1¼	73.0×42.4 2.875×1.660	300 2.07	51 2	137 5.397	84.5 3.33	73 2.87	49 1.93	1/2×70 M12X70
65×40 2½×1½	73.0×48.3 2.875×1.900	300 2.07	51 2	137 5.39	84.5 3.33	73 2.87	49 1.93	1/2×70 M12X70
65×15 76.1×½	76.1×21.3 3.000×0.825	300 2.07	38 1.5	137 5.39	71 2.8	61.5 2.42	49.5 1.95	1/2×70 M12X70
65×20 76.1×¾	76.1×26.9 3.000×1.050	300 2.07	38 1.5	137 5.39	71 2.8	68 2.67	49.5 1.95	1/2×70 M12X70
65×25 76.1×1	76.1×33.7 3.000×1.315	300 2.07	38 1.5	137 5.39	71 2.8	75 3.05	49.5 1.95	1/2×70 M12X70
65×32 76.1×1¼	76.1×42.4 3.000×1.660	300 2.07	51 2	137 5.39	84.5 3.33	75 3.05	49.5 1.95	1/2×70 M12X70
65×40 76.1×1½	76.1×48.3 3.000×1.900	300 2.07	51 2	137 5.39	84.5 3.33	75 3.05	49.5 1.95	1/2×70 M12X70
80×25 3×½	88.9×21.3 3.500×0.825	300 2.07	38 1.5	152 5.98	72.5 2.85	71.5 2.81	56.5 2.22	1/2×75 M12X76
80x20 3×¾	88.9×26.9 3.500×1.050	300 2.07	38 1.5	152 5.98	72.5 2.85	71.5 2.81	56.5 2.22	1/2×75 M12X76
80×25 3×1	88.9×33.7 3.500×1.315	300 2.07	38 1.5	152 5.98	72.5 2.85	80 3.15	56.5 2.22	1/2×75 M12X76
80×32 3×1¼	88.9×42.4 3.500×1.660	300 2.07	51 2	152 5.98	85.5 3.37	80 3.15	56.5 2.22	1/2×75 M12X76
80×40 3×1½	88.9×48.3 3.500×1.900	300 2.07	51 2	152 5.98	85.5 3.37	80 3.15	56.5 2.22	1/2×75 M12X76
80×50 3×2	88.9×60.3 3.500×2.375	300 2.07	64 2.5	152 5.98	98 3.86	80 3.15	56.5 2.22	1/2×75 M12X76
100×15 108.0×1/2	108.1×21.3 4.250×0.825	300 2.07	38 1.5	172 6.77	78.5 3.09	87 3.43	64.5 2.54	1/2×75 M12X76
100×20 108.0×3/4	108.1×26.9 4.250×1.050	300 2.07	38 1.5	172 6.77	78.5 3.09	87 3.43	64.5 2.54	1/2×75 M12X76
100×25	108.1×33.7	300	38	172	78.5	87	64.5	1/2×75

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Owner:_____ Contractor:_____ Engineer: _____

Location:_____ Date:_____ Approved& Date: _____

108.0×1	4.250×1.315	2.07	1.5	6.77	3.09	3.43	2.54	M12X76

Nominal Size	Pipe O.D	Working Pressure	Hole Dia mm/in	Dimensions				Bolt Size
				A	B	C	D	
mm/in	mm/in	PSI/Mpa	+1.6,0/+0.063,0	mm/in	mm/in	mm/in	mm/in	mm/in
100×32	108.1×42.4	300	51	172	89	87	64.5	1/2×75
108.0×1¼	4.250×1.660	2.07	2	6.77	3.5	3.43	2.54	M12X76
100×40	108.0×48.3	300	51	172	89	87	64.5	1/2×75
108.0×1½	4.250×1.900	2.07	2	6.77	3.5	3.43	2.54	M12X76
100×50	108.0×60.3	300	64	172	106.5	92	64.5	1/2×75
108.0×2	4.250×2.375	2.07	2.5	6.77	4.19	3.62	2.54	M12X76
100×65	108.0×76.1	300	70	172	106.5	100	64.5	1/2×75
108.0×76.1	4.250×3.000	2.07	2.75	6.77	4.19	3.94	2.54	M12X76
100×15	114.3×21.3	300	38	188	78.5	90	70	1/2×75
4×½	4.500×0.825	2.07	1.5	7.4	3.09	3.54	2.76	M12X76
100×20	114.3×26.9	300	38	188	78.5	90	70	1/2×75
4×¾	4.500×1.050	2.07	1.5	7.4	3.09	3.54	2.76	M12X76
100×25	114.3×33.7	300	38	188	78.5	93	70	1/2×75
4×1	4.500×1.315	2.07	1.5	7.4	3.09	3.66	2.76	M12X76
100×32	114.3×42.4	300	51	188	89	95	70	1/2×75
4×1¼	4.500×1.660	2.07	2	7.4	3.5	3.74	2.76	M12X76
100×40	114.3×48.3	300	51	188	89	97	70	1/2×75
4×1½	4.500×1.900	2.07	2	7.4	3.5	3.82	2.76	M12X76
100×50	114.3×60.3	300	64	188	104.5	100	70	1/2×75
4×2	4.500×2.375	2.07	2.5	7.4	4.11	3.94	2.76	M12X76
100×65	114.3×73.0	300	70	188	104.5	102	70	1/2×7
4×2½	4.500×2.875	2.07	2.75	7.4	4.11	4.02	2.76	M12X765
100×65	114.3×76.1	300	70	188	104.5	102	70	1/2×75
4×76.1	4.500×3.000	2.07	2.75	7.4	4.11	4.02	2.76	M12X76
100×80	114.3×88.9	300	89	188	128	102	70	1/2×75
4×3	4.500×3.500	2.07	3.5	7.4	5.039	4.02	2.76	M12X76
125×32	133.0×42.4	300	51	209	93	105	77	5/8×85
133.0×1.25	5.250×1.660	2.07	2	8.23	3.66	4.13	3.03	M16X85
125×40	133.0×48.3	300	51	209	93	105	77	5/8×85
133.0×1½	5.250×1.900	2.07	2	8.23	3.66	4.13	3.03	M16X85
125×50	133.0×60.3	300	64	209	112.5	110	77	5/8×85
133.0×2	5.250×2.375	2.07	2.5	8.23	4.43	4.33	3.03	M16X85
125×15	139.7×21.3	300	38	221.5	78	110	84	5/8×85
139.7×1/2	5.500×0.825	2.07	1.5	8.72	3.07	4.33	3.31	M16X85
125×20	139.7×26.9	300	38	221.5	78	110	84	5/8×85
139.7×3/4	5.500×1.050	2.07	1.5	8.72	3.07	4.33	3.31	M16X85

Sign Off:

Owner:_____ Contractor:_____ Engineer: _____

Location:_____ Date:_____ Approved& Date: _____

Nominal Size	Pipe O.D	Working Pressure	Hole Dia mm/in	Dimensions				Bolt Size
				A	B	C	D	
mm/in	mm/in	PSI/Mpa	+1.6,0/+0.063,0	mm/in	mm/in	mm/in	mm/in	mm/in
125×25	139.7×33.7	300	38	221.5	78	110	84	5/8×85
139.7×1	5.500×1.315	2.07	1.5	8.72	3.07	4.33	3.31	M16X85
125×32	139.7×42.4	300	51	221.5	95	112	84	5/8×85
139.7×1¼	5.500×1.660	2.07	2	8.72	3.74	4.41	3.31	M16X85
125×40	139.7×48.3	300	51	221.5	95	112	84	5/8×85
139.7×1½	5.500×1.900	2.07	2	8.72	3.74	4.41	3.31	M16X85
125×50	139.7×60.3	300	64	221.5	112.5	115	84	5/8×85
139.7×2	5.500×2.375	2.07	2.5	8.72	4.43	4.53	3.31	M16X85
125×65	139.7×76.1	300	70	221.5	112.5	115	84	5/8×85
139.7×76.1	5.500×3.000	2.07	2.75	8.72	4.43	4.53	3.31	M16X85
125×80	139.7×88.9	300	89	221.5	132	120	84	5/8×85
139.7×3	5.500×3.500	2.07	3.5	8.72	5.2	4.72	3.31	M16X85
125×100	139.7×114.3	300	114	221.5	156	125	84	5/8×85
139.7×4	5.500×4.500	2.07	4.5	8.72	6.3	4.92	3.31	M16X85
150×15	159.0×21.3	300	38	244	78	116	94	5/8×105
159.0×1/2	6.250×0.825	2.07	1.5	9.6	3.07	4.57	3.7	M16X108
150×25	159.0×33.7	300	38	244	78	116	94	5/8×105
159.0×1	6.250×1.315	2.07	1.5	9.6	3.07	4.57	3.7	M16X108
150×32	159.0×42.4	300	51	244	93	118	94	5/8×105
159.0×1¼	6.250×1.660	2.07	2	9.6	3.66	4.65	3.7	M16X108
150×40	159.0×48.3	300	51	244	93	118	94	5/8×105
159.0×1½	6.250×1.900	2.07	2	9.6	3.66	4.65	3.7	M16X108
150×50	159.0×60.3	300	64	244	112.5	125	94	5/8×105
159.0×2	6.250×2.375	2.07	2.5	9.6	4.43	4.92	3.7	M16X108
150×65	159.0×76.1	300	70	244	112.5	125	94	5/8×105
159.0×76.1	6.250×3.000	2.07	2.75	9.6	4.43	4.92	3.7	M16X108
150×80	159.0×88.9	300	89	244	133	125	94	5/8×105
159.0×3	6.250×3.500	2.07	3.5	9.6	5.2	4.92	3.7	M16X108
150×100	159.1×114.3	175	114	244	156.5	130	94	5/8×105
159.0×4	6.250×4.500	1.2	4.5	9.6	6.16	5.12	3.7	M16X108
150×15	165.1×21.3	300	38	244	78	110	97.5	5/8×105
165.1×½	6.500×0.825	2.07	1.5	9.6	3.07	4.33	3.84	M16X108
125×20	165.1×26.9	300	38	244	78	110	97.5	5/8×105
165.1×¾	6.500×1.050	2.07	1.5	9.6	3.07	4.33	3.84	M16X108
150×25	165.1×33.7	300	38	244	78	118	97.5	5/8×105

Sign Off:

Owner:_____ Contractor:_____ Engineer: _____

Location:_____ Date:_____ Approved& Date: _____

165.1×1	6.500×1.315	2.07	1.5	9.6	3.07	4.65	3.84	M16X108

Nominal Size	Pipe O.D	Working Pressure	Hole Dia mm/in	Dimensions				Bolt Size
				A	B	C	D	
mm/in	mm/in	PSI/Mpa	+1.6,0/+0.063,0	mm/in	mm/in	mm/in	mm/in	mm/in
150×32	165.1×42.4	300	51	244	93	118	97.5	5/8×105
165.1×1¼	6.500×1.660	2.07	2	9.6	3.66	4.65	3.84	M16X108
150×40	165.1×48.3	300	51	244	93	118	97.5	5/8×105
165.1×1½	6.500×1.900	2.07	2	9.6	3.66	4.65	3.84	M16X108
150×50	165.1×60.3	300	64	244	112.5	128.5	97.5	5/8×105
165.1×2	6.500×2.375	2.07	2.5	9.6	4.43	5.43	3.84	M16X108
150×65	165.1×76.1	300	70	244	112.5	128.5	97.5	5/8×105
165.1×76.1	6.500×3.000	2.07	2.75	9.6	4.43	5.43	3.84	M16X108
150×80	165.1×88.9	300	89	244	132	128.5	97.5	5/8×105
165.1×3	6.500×3.500	2.07	3.5	9.6	5.2	5.06	3.84	M16X108
150×100	165.1×114.3	225	114	244	154	135	97.5	5/8×105
165.1×4	6.500×4.500	1.6	4.5	9.6	6.18	5.32	3.84	M16X108
150×32	168.3×42.4	300	51	247	95	122	98.5	5/8×105
6×1¼	6.500×1.660	2.07	2	9.72	3.74	4.8	3.88	M16X108
150×40	168.3×48.3	300	51	247	95	122	98.5	5/8×105
6×1½	6.500×1.900	2.07	2	9.72	3.74	4.8	3.88	M16X108
150×50	168.3×60.3	300	64	247	112.5	132	98.5	5/8×105
6×2	6.625×2.375	2.07	2.5	9.72	4.43	5.2	3.88	M16X108
150×65	168.3×73.0	300	70	247	112.5	132	98.5	5/8×105
6×2½	6.625×2.875	2.07	2.75	9.72	4.43	5.2	3.88	M16X108
150×65	168.3×76.1	300	70	247	112.5	132	98.5	5/8×105
6×76.1	6.625×3.000	2.07	2.75	9.72	4.43	5.2	3.88	M16X108
150×80	168.3×88.9	300	89	247	132	140	98.5	5/8×105
6×3	6.625×3.500	2.07	3.5	9.72	5.2	5.51	3.88	M16X108
150×100	168.3×114.3	300	114	247	160	140	98.5	5/8×105
6×4	6.625×4.500	2.07	4.5	9.72	6.3	5.51	3.88	M16X108
200×25	219.0×33.7	300	38	320	79.5	150	125	3/4×115
8×1	8.625×1.315	2.07	1.5	12.6	3.13	5.91	4.92	M20X115
200×32	219.1×42.4	300	51	320	96.5	150	125	3/4×115
8×1¼	8.625×1.660	2.07	2	12.6	3.8	5.91	4.92	M20X115
200×40	219.1×48.3	300	51	320	96.5	150	125	3/4×115
8×1½	8.625×1.900	2.07	2	12.6	3.8	5.91	4.92	M20X115
200×50	219.1×60.3	300	64	320	117	160	125	3/4×115
8×2	8.625×2.375	2.07	2.5	12.6	4.61	6.3	4.92	M20X115

Sign Off:

Owner:_____ Contractor:_____ Engineer: _____

Location:_____ Date:_____ Approved& Date: _____

200×65 8×2½	219.1×73.0 8.625×2.875	300 2.07	70 2.75	320 12.6	118 4.65	160 6.3	125 4.92	3/4×115 M20X115

Nominal Size	Pipe O.D	Working Pressure	Hole Dia mm/in	Dimensions				Bolt Size
				A	B	C	D	
mm/in	mm/in	PSI/Mpa	+1.6,0/+0.063,0	mm/in	mm/in	mm/in	mm/in	mm/in
200×65 8×76.1	219.1×76.1 8.625×3.000	300 2.07	70 2.75	320 12.6	118 4.65	160 6.3	125 4.92	3/4×115 M20X115
200×80 8×3	219.1×88.9 8.625×3.500	300 2.07	89 3.5	320 12.6	136.5 5.37	160 6.3	125 4.92	3/4×115 M20X115
200×100 8×4	219.1×114.3 8.625×4.500	300 2.07	114 4.5	320 12.6	164 6.46	160 6.3	125 4.92	3/4×115 M20X115
250×40 10×1½	273.0×48.3 10.750×1.900	300 2.07	51 2	376 14.8	95.5 3.76	180 7.09	155 6.1	3/4×120 M20X115
250×50 10×2	273.0×60.3 10.750×2.375	300 2.07	64 2.5	376 14.8	118 4.65	185 7.28	155 6.1	3/4×120 M20X115
250×65 10×76.1	273.0×76.1 10.750×3.000	300 2.07	70 2.75	376 14.8	118 4.65	190 7.48	155 6.1	3/4×120 M20X115
250×80 10×3	273.0×88.9 10.750×3.500	300 2.07	89 3.5	376 14.8	136.5 5.37	190 7.48	155 6.1	3/4×120 M20X115
250×100 10×4	273.0×114.3 10.750×4.500	300 2.07	114 4.5	376 14.8	164 6.46	190 7.48	155 6.1	3/4×120 M20X115

5.0 REFERENCE MATERIALS

Approved certification for Grooved Fittings and Couplings

I-JM-Grooved fitting: Installation Instructions for grooved fittings and couplings

Sign Off:

Owner:_____ Contractor:_____ Engineer: _____

Location:_____ Date:_____ Approved& Date: _____