NUTEK SYSTEMS, LTD.

Unit B, 13/F., Universal Ind. Ctr.,
23-25 Shan Mei Street,
Fo Tan, Shatin, N.T., Hong Kong.
Tel: (852) 2605 5736 Fax: (852) 2692 0798

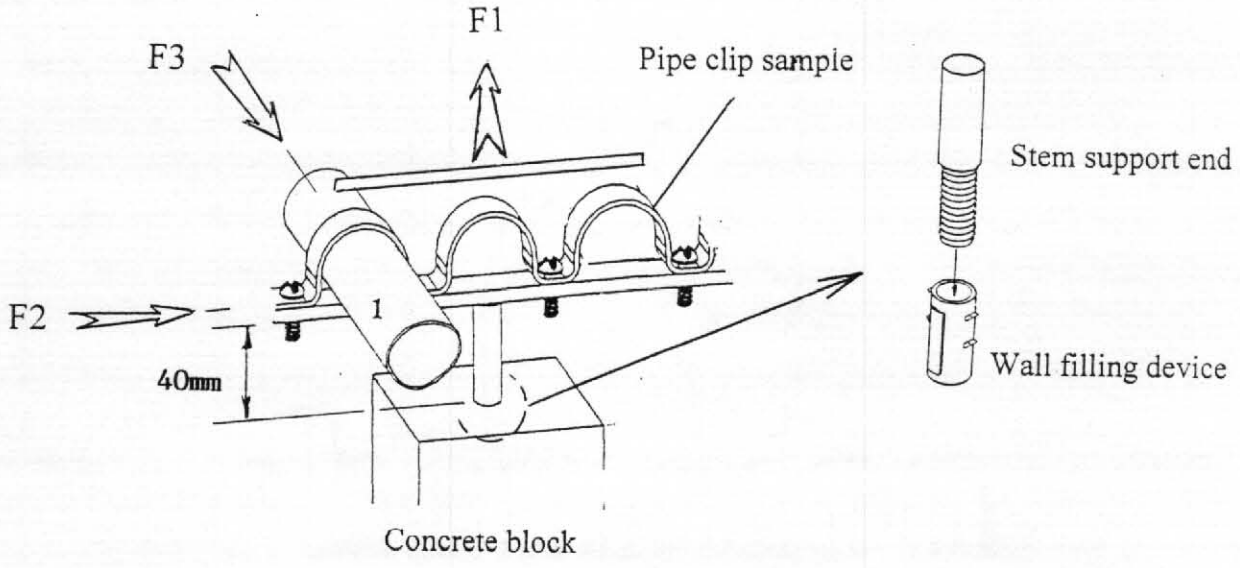
TEST REPORT

TITLE	:	Testing of Pipe Clip
OUR REFERENCE NO.	:	J8861-27
DESCRIPTION OF SAMPLE	:	Ø22mm (3/4") Stainless steel pipe clips for parallel multi-pipes (**two to four pipes** respectively); supplied with plastic wall filling device; for BS2871 part 1/BSEN1057 copper pipe; dimensions: 18mm width x 2.5mm thick rings; 20mm width x 5mm thick base plate; with single Ø12mm support stem electrically welded onto the base plate; with 1/4" x ¾" screws and nuts.
SAMPLE SUBMITTED BY	:	Cheung's Engineering Co. G/F., 90 Tak Cheong Street, Kowloon, Hong Kong.
MANUFACTURER	:	Cheung's Engineering Co.
BRAND / LOGO	:	*Pipe Clips-*
COUNTRY OF ORIGIN	:	China
TEST REQUIRED	:	Loading test
PERIOD OF TESTS	:	20th to 24th January 2003

RESULTS: -
LOADING TEST

1. A concrete block made of concrete mix grade 30D10 (cement to BS12: 1978 and Aggregate to BS882: 1973) was prepared and used for the loading test.

2. The plastic wall filling device was connected to the end of a new pipe clip's each support stem.



/.....P.2

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TEST REPORT

3. The concrete block was secured to the loading test frame. A hole was drilled on the concrete block; the pipe clip's support stem was hammered into the hole. A copper pipe of BS2871 part 1 (EN1057) was connected to the pipe clip.

4. The evenly distributed vertical pulling force **F1** applied to detach the pipe clip from the concrete block was measured.

5. Steps 1 to 3 were repeated. A horizontal force **F2** applied to the pipe clip (perpendicular to the pipe axis) to result in a 20mm horizontal deflection was measured.

6. Steps 1 to 3 were repeated. A horizontal force **F3** acting on the pipe along its longitudinal axis to slip the pipe from the pipe clip by 20mm was measured.

7. Result :

Vertical force **F1** to detach the pipe clip from the concrete block (kgf)	Horizontal force **F2** to result in a 20mm horizontal deflection (kgf)	Horizontal force **F3** to slip the pipe by 20mm (kgf)
380	448	137

Date : 15th February 2003 Authorized signature : _____

Samson W.K. Yiu

(Director)

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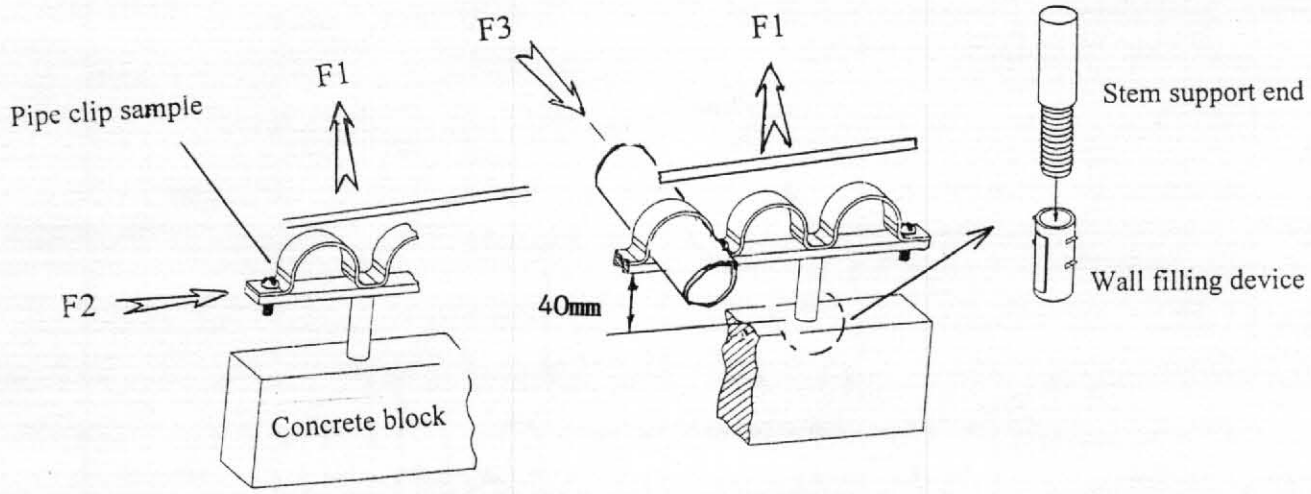
TEST REPORT

TITLE	:	Testing of Pipe Clip
OUR REFERENCE NO.	:	J8861-28
DESCRIPTION OF SAMPLE	:	Ø22mm (3/4") Stainless steel pipe clips for parallel multi-pipes (**five to twelve pipes** respectively); supplied with plastic wall filling devices; for BS2871 part 1/BSEN1057 copper pipe; dimensions: 18mm width x 2.5mm thick rings; 20mm width x 5mm thick base plate; with two Ø12mm support stems electrically welded onto the base plate; with 1/4" x ¾" screws and nuts.
SAMPLE SUBMITTED BY	:	Cheung's Engineering Co. G/F., 90 Tak Cheong Street, Kowloon, Hong Kong.
MANUFACTURER	:	Cheung's Engineering Co.
BRAND / LOGO	:	*Pipe Clips-*
COUNTRY OF ORIGIN	:	China
TEST REQUIRED	:	Loading test
PERIOD OF TESTS	:	20th to 24th January 2003

RESULTS: -
LOADING TEST

1. A concrete block made of concrete mix grade 30D10 (cement to BS12: 1978 and Aggregate to BS882: 1973) was prepared and used for the loading test.

2. A plastic wall filling device was connected to the end of a new pipe clip's each support stem.



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TEST REPORT

3. The concrete block was secured to the loading test frame. Two holes were drilled on the concrete block; the pipe clip's two support stems were hammered into the two holes respectively. A copper pipe of BS2871 part 1 (EN1057) was connected to the pipe clip.

4. The evenly distributed vertical pulling force **F1** applied to detach the pipe clip from the concrete block was measured.

5. Steps 1 to 3 were repeated. A horizontal force **F2** applied to the pipe clip (perpendicular to the pipe axis) to result in a 20mm horizontal deflection was measured.

6. Steps 1 to 3 were repeated. A horizontal force **F3** acting on the pipe along its longitudinal axis to slip the pipe from the pipe clip by 20mm was measured.

7. Result :

Vertical force **F1** to detach the pipe clip from the concrete block (kgf)	Horizontal force **F2** to result in a 20mm horizontal deflection (kgf)	Horizontal force **F3** to slip the pipe by 20mm (kgf)
765	1111	137

Date : 15th February 2003 Authorized signature : _____

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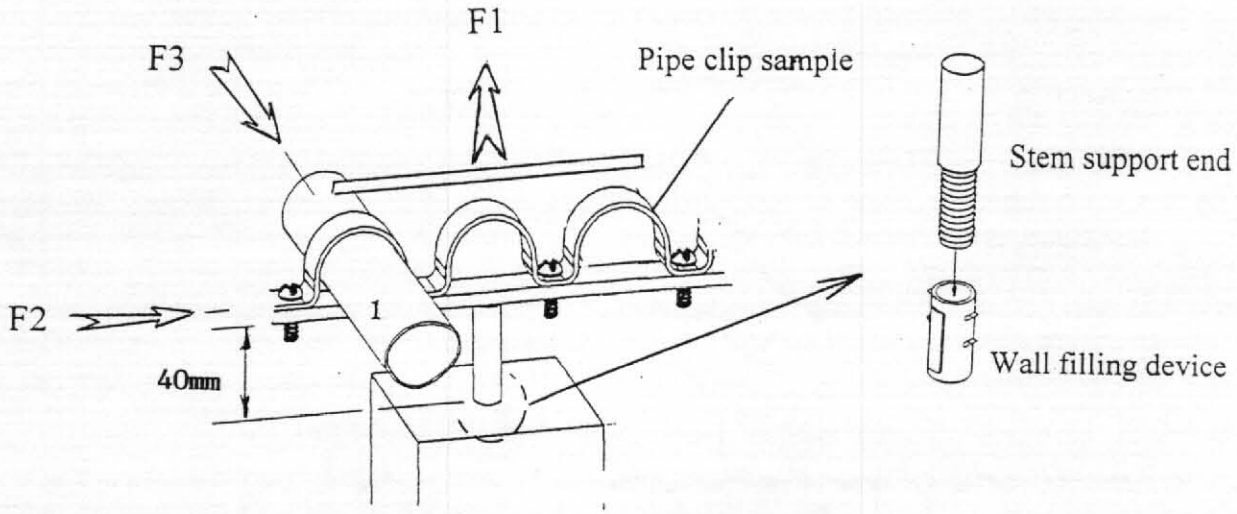
TEST REPORT

TITLE	:	Testing of Pipe Clip
OUR REFERENCE NO.	:	J8861-29
DESCRIPTION OF SAMPLE	:	Ø28mm (1") Stainless steel pipe clips for parallel multi-pipes (**two to four pipes** respectively); supplied with plastic wall filling device; for BS2871 part 1/BSEN1057 copper pipe; dimensions: 18mm width x 2.5mm thick rings; 20mm width x 5mm thick base plate; with single Ø12mm support stem electrically welded onto the base plate; with 1/4" x ¾" screws and nuts.
SAMPLE SUBMITTED BY	:	Cheung's Engineering Co. G/F., 90 Tak Cheong Street, Kowloon, Hong Kong.
MANUFACTURER	:	Cheung's Engineering Co.
BRAND / LOGO	:	*Pipe Clips-*
COUNTRY OF ORIGIN	:	China
TEST REQUIRED	:	Loading test
PERIOD OF TESTS	:	20th to 24th January 2003

RESULTS: -
LOADING TEST

1. A concrete block made of concrete mix grade 30D10 (cement to BS12: 1978 and Aggregate to BS882: 1973) was prepared and used for the loading test.

2. The plastic wall filling device was connected to the end of a new pipe clip's support stem.



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TEST REPORT

3. The concrete block was secured to the loading test frame. A hole was drilled on the concrete block; the pipe clip's support stem was hammered into the hole. A copper pipe of BS2871 part 1 (EN1057) was connected to the pipe clip.

4. The evenly distributed vertical pulling force **F1** applied to detach the pipe clip from the concrete block was measured.

5. Steps 1 to 3 were repeated. A horizontal force **F2** applied to the pipe clip (perpendicular to the pipe axis) to result in a 20mm horizontal deflection was measured.

6. Steps 1 to 3 were repeated. A horizontal force **F3** acting on the pipe along its longitudinal axis to slip the pipe from the pipe clip by 20mm was measured.

7. Result :

Vertical force **F1** to detach the pipe clip from the concrete block (kgf)	Horizontal force **F2** to result in a 20mm horizontal deflection (kgf)	Horizontal force **F3** to slip the pipe by 20mm (kgf)
380	448	91

Date : 15th February 2003 Authorized signature : _____

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Samson W.K. Yiu

(Director)

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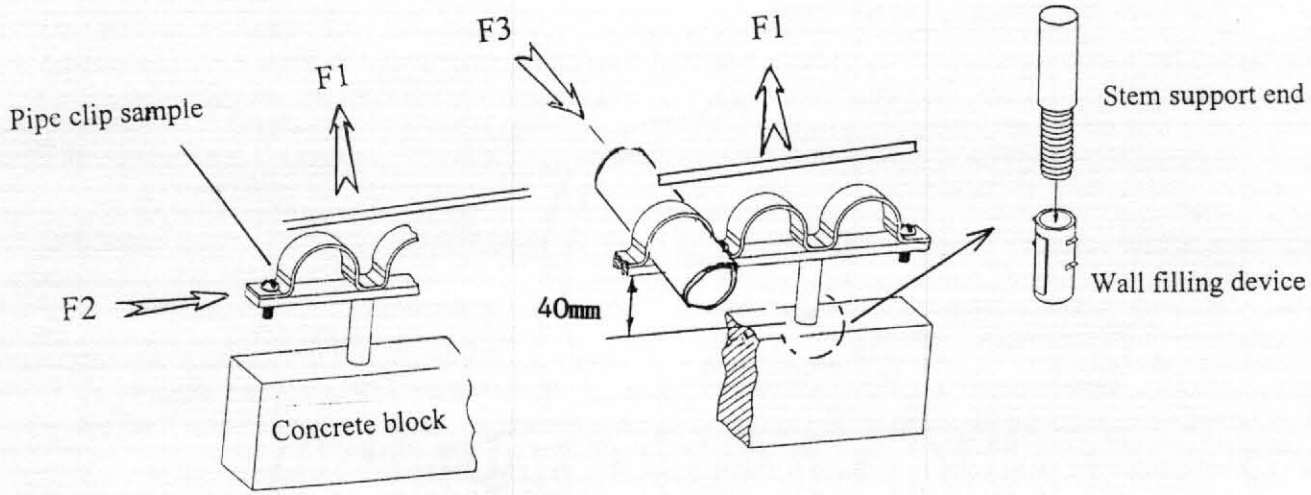
TEST REPORT

TITLE	:	Testing of Pipe Clip
OUR REFERENCE NO.	:	J8861-30
DESCRIPTION OF SAMPLE	:	Ø28mm (1") Stainless steel pipe clips for parallel multi-pipes (**five to twelve pipes** respectively); supplied with plastic wall filling devices; for BS2871 part 1/BSEN1057 copper pipe; dimensions: 18mm width x 2.5mm thick rings; 20mm width x 5mm thick base plate; with two Ø12mm support stems electrically welded onto the base plate; with 1/4" x ¾" screws and nuts.
SAMPLE SUBMITTED BY	:	Cheung's Engineering Co. G/F., 90 Tak Cheong Street, Kowloon, Hong Kong.
MANUFACTURER	:	Cheung's Engineering Co.
BRAND / LOGO	:	*Pipe Clips*
COUNTRY OF ORIGIN	:	China
TEST REQUIRED	:	Loading test
PERIOD OF TESTS	:	20th to 24th January 2003

RESULTS: -
LOADING TEST

1. A concrete block made of concrete mix grade 30D10 (cement to BS12: 1978 and Aggregate to BS882: 1973) was prepared and used for the loading test.

2. The plastic wall filling device was connected to the end of a new pipe clip's each support stem.



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TEST REPORT

3. The concrete block was secured to the loading test frame. Two holes were drilled on the concrete block; the pipe clip's two support stems were hammered into the two holes respectively. A copper pipe of BS2871 part 1 (EN1057) was connected to the pipe clip.

4. The evenly distributed vertical pulling force **F1** applied to detach the pipe clip from the concrete block was measured.

5. Steps 1 to 3 were repeated. A horizontal force **F2** applied to the pipe clip (perpendicular to the pipe axis) to result in a 20mm horizontal deflection was measured.

6. Steps 1 to 3 were repeated. A horizontal force **F3** acting on the pipe along its longitudinal axis to slip the pipe from the pipe clip by 20mm was measured.

7. Result :

Vertical force **F1** to detach the pipe clip from the concrete block (kgf)	Horizontal force **F2** to result in a 20mm horizontal deflection (kgf)	Horizontal force **F3** to slip the pipe by 20mm (kgf)
765	1111	91

Date : 18th February 2003 Authorized signature : _____

Samson W.K. Yiu

(Director)

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