


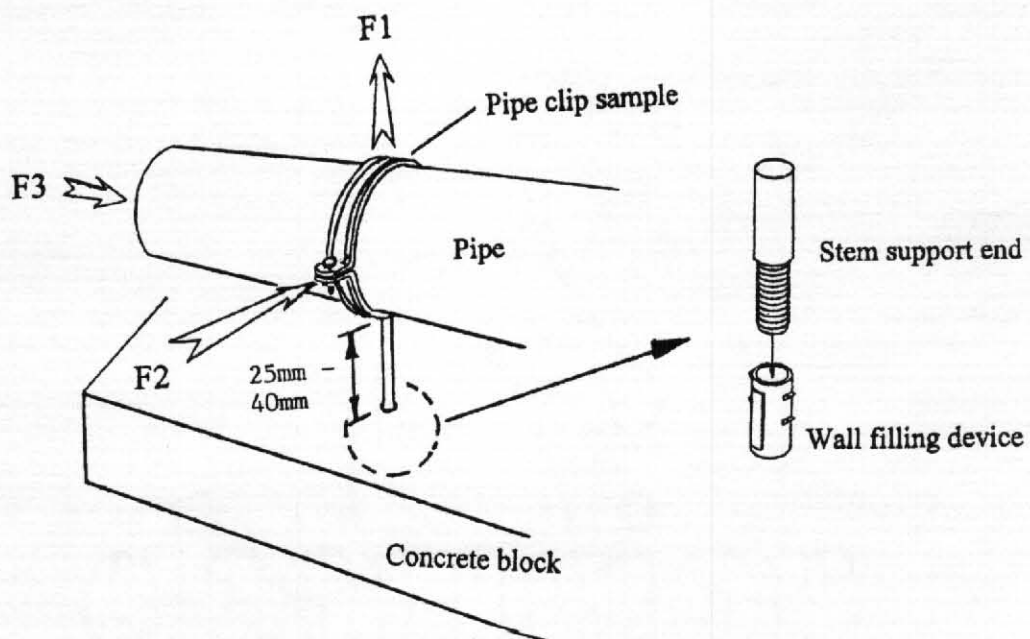


TEST REPORT

TITLE : Testing of Pipe Clip
OUR REFERENCE NO. : J8861-18
DESCRIPTION OF SAMPLE : Ø18mm (½") Stainless steel pipe clip supplied with plastic wall filling device; for BS2871 part 1/BSEN1057 copper pipe; dimensions: 15mm width x 2.5mm thick ring; with Ø9mm support stem electrically welded onto the ring; with 3/16" x 5/8" 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 : 
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.






TEST REPORT

OUR REFERENCE NO. J8861-18 (P.2)

- 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/BSEN1057 was connected to the pipe clip.
 - The vertical pulling force **F1** applied to detach the pipe clip from the concrete block was measured.
 - 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.
 - 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)
260	336.5	183.5

Date : 15th February 2003 Authorized signature : 


Nutek Systems is a testing agency, approved by the Water Authority and Government Supplies Department, for testing water supply fittings.

Samson W.K. Yiu
(Director)



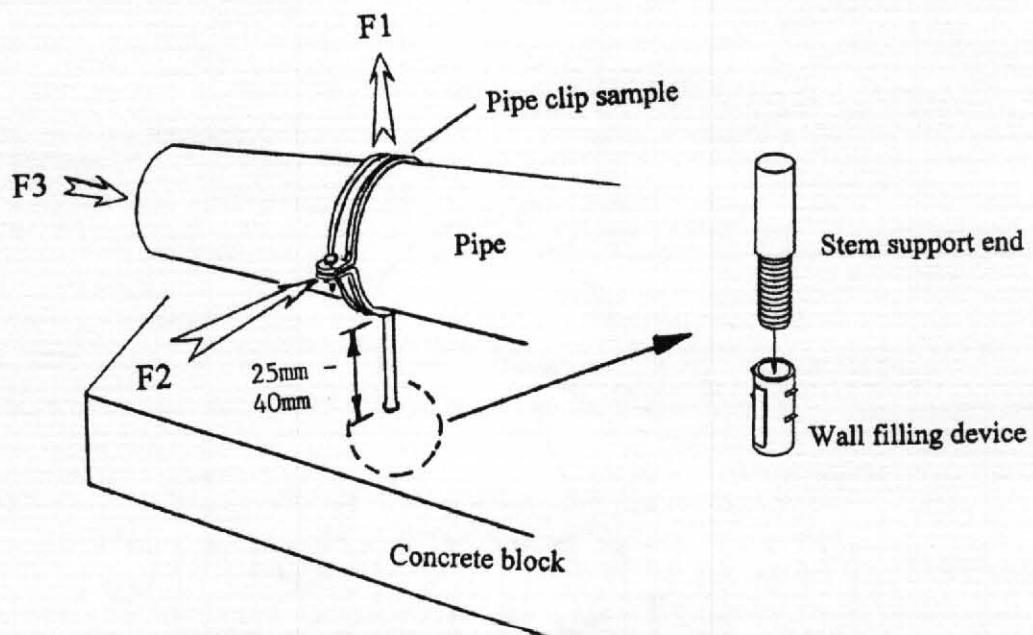


TEST REPORT

TITLE : Testing of Pipe Clip
OUR REFERENCE NO. : J8861-19
DESCRIPTION OF SAMPLE : Ø22mm (¾") Stainless steel pipe clip supplied with plastic wall filling device; for BS2871 part 1/BSEN1057 copper pipe; dimensions: 15mm width x 2.5mm thick ring; with Ø9mm support stem electrically welded onto the ring; with 3/16" x 5/8" 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.





TEST REPORT

OUR REFERENCE NO. J8861-19 (P.2)

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/BSEN1057 was connected to the pipe clip.
4. The 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)
260	336.5	168.2

Date : 15th February 2003 Authorized signature : _____


Samson W.K. Yiu

(Director)

Nutek Systems is a testing agency,
approved by the Water Authority and
Government Supplies Department, for
testing water supply fittings.

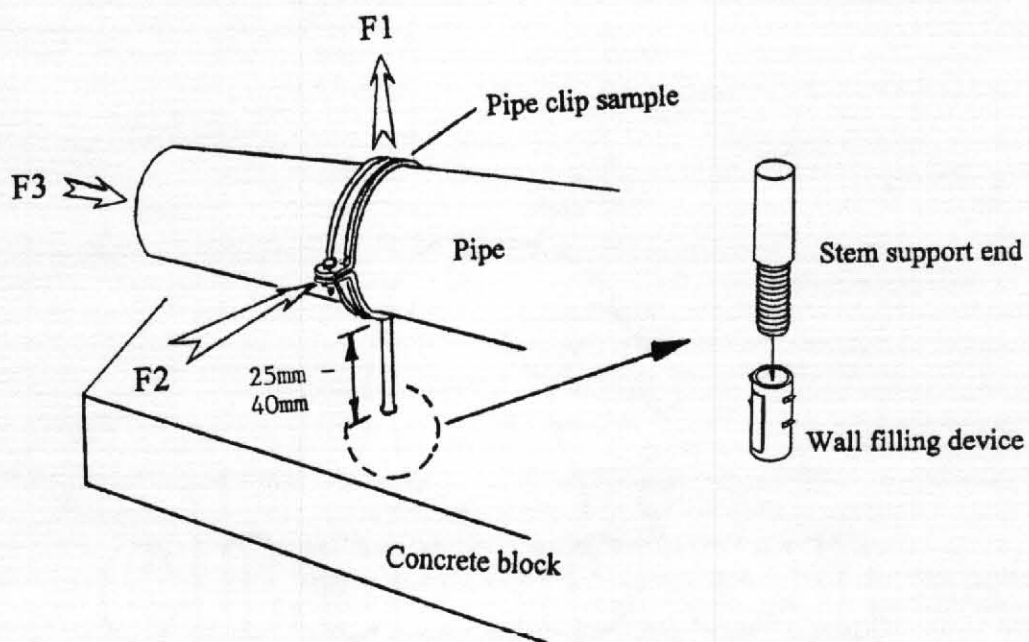


TEST REPORT

TITLE : Testing of Pipe Clip
OUR REFERENCE NO. : J8861-20
DESCRIPTION OF SAMPLE : Ø28mm (1") Stainless steel pipe clip supplied with plastic wall filling device; for BS2871 part 1/BSEN1057 copper pipe; dimensions: 15mm width x 2.5mm thick ring; with Ø9mm support stem electrically welded onto the ring; with 3/16" x 5/8" 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 : 
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.





TEST REPORT


OUR REFERENCE NO. J8861-20 (P.2)

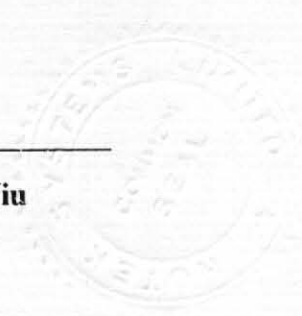
- The concrete block was secured to the loading test frame. A hole was drilled on the concrete block; the pipe clip's support stem was hammered into the hole. A copper pipe of BS2871 part 1/BSEN1057 was connected to the pipe clip.
 - The vertical pulling force **F1** applied to detach the pipe clip from the concrete block was measured.
 - 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.
 - 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)
260	275.3	152.9

Date : 15th February 2003 Authorized signature : _____


Nutek Systems is a testing agency,
approved by the Water Authority and
Government Supplies Department, for
testing water supply fittings.


Samson W.K. Yiu
(Director)





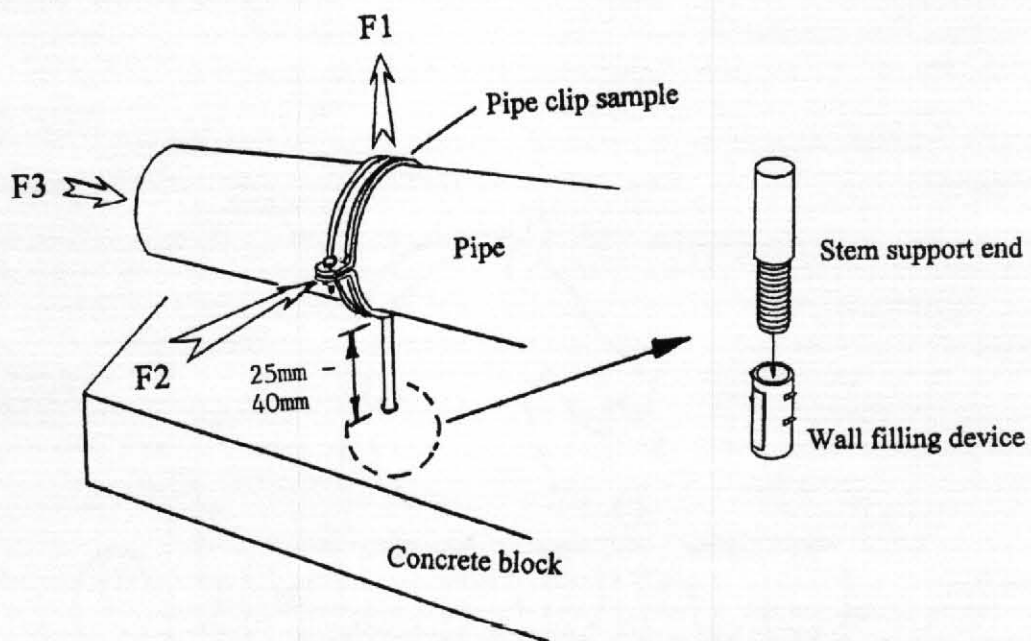
TEST REPORT

TITLE : Testing of Pipe Clip
OUR REFERENCE NO. : J8861-21
DESCRIPTION OF SAMPLE : Ø35mm (1¼") Stainless steel pipe clip supplied with plastic wall filling device; for BS2871 part 1/BS EN1057 copper pipe; dimensions: 15mm width x 2.5mm thick ring; with Ø9mm support stem electrically welded onto the ring; with 3/16" x 5/8" 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.





TEST REPORT

OUR REFERENCE NO. J8861-21 (P.2)


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/BSEN1057 was connected to the pipe clip.
4. The 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)
260	244.7	168.2


Date : 15th February 2003 Authorized signature : _____

Nutek Systems is a testing agency,
approved by the Water Authority and
Government Supplies Department, for
testing water supply fittings.


Samson W.K. Yiu
(Director)

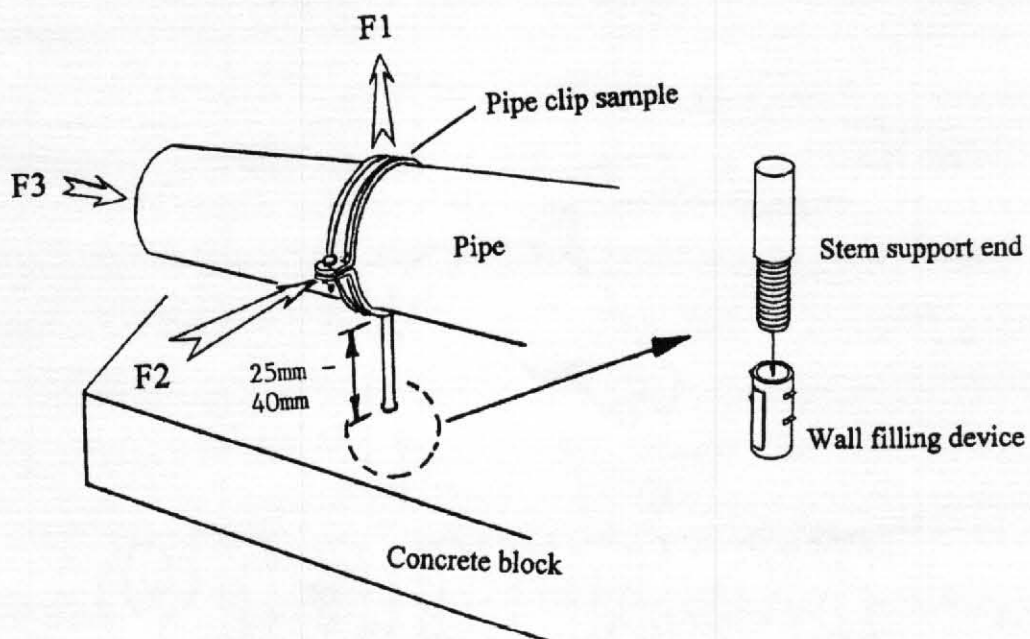


TEST REPORT

TITLE : Testing of Pipe Clip
OUR REFERENCE NO. : J8861-22
DESCRIPTION OF SAMPLE : Ø42mm (1½") Stainless steel pipe clip supplied with plastic wall filling device; for BS2871 part 1/BS EN1057 copper pipe; dimensions: 15mm width x 2.5mm thick ring; with Ø9mm support stem electrically welded onto the ring; with 3/16" x 5/8" 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.






TEST REPORT

OUR REFERENCE NO. J8861-22 (P.2)

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/BSEN1057 was connected to the pipe clip.
4. The 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)
260	275.3	152.9


Date : 15th February 2003 Authorized signature : 

Nutek Systems is a testing agency, approved by the Water Authority and Government Supplies Department, for testing water supply fittings.

Samson W.K. Yiu
(Director)

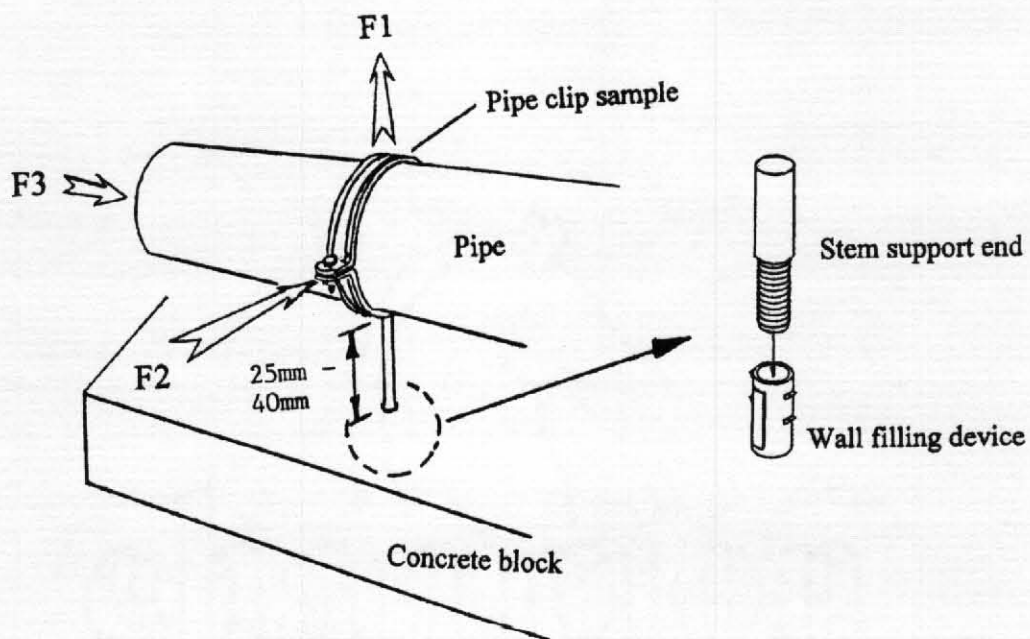


TEST REPORT

TITLE : Testing of Pipe Clip
OUR REFERENCE NO. : J8861-23
DESCRIPTION OF SAMPLE : Ø54mm (2") Stainless steel pipe clip supplied with plastic wall filling device; for BS2871 part 1/BSEN1057 copper pipe; dimensions: 18mm width x 2.5mm thick ring; with Ø9mm support stem electrically welded onto the ring; with ¼" 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.






TEST REPORT

OUR REFERENCE NO. J8861-23 (P.2)

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/BSEN1057 was connected to the pipe clip.
4. The 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)
260	198.8	183.5


Date : 15th February 2003 Authorized signature : 

Nutek Systems is a testing agency,
approved by the Water Authority and
Government Supplies Department, for
testing water supply fittings.

Samson W.K. Yiu
(Director)

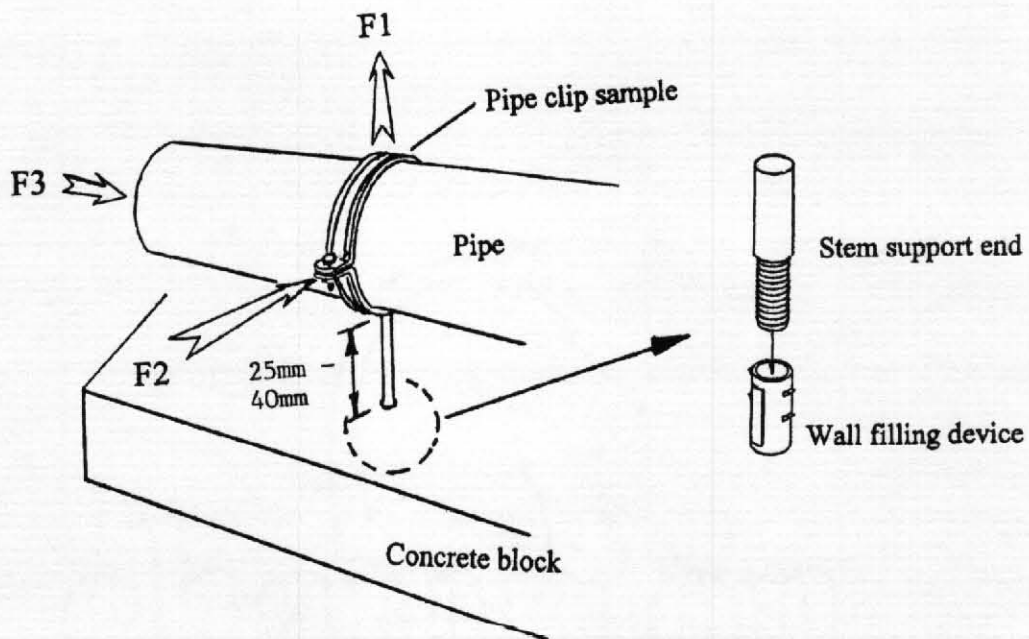


TEST REPORT

TITLE : Testing of Pipe Clip
OUR REFERENCE NO. : J8861-24
DESCRIPTION OF SAMPLE : Ø66.7mm (2½") Stainless steel pipe clip supplied with plastic wall filling device; for BS2871 part 1/BSEN1057 copper pipe; dimensions: 18mm width x 2.5mm thick ring; with Ø9mm support stem electrically welded onto the ring; with ¼" 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.





TEST REPORT

OUR REFERENCE NO. J8861-24 (P.2)

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/BSEN1057 was connected to the pipe clip.
4. The 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)
260	214.1	152.9

Date : 15th February 2003 Authorized signature : _____

Nutek Systems is a testing agency,
approved by the Water Authority and
Government Supplies Department, for
testing water supply fittings.



Samson W.K. Yiu

(Director)



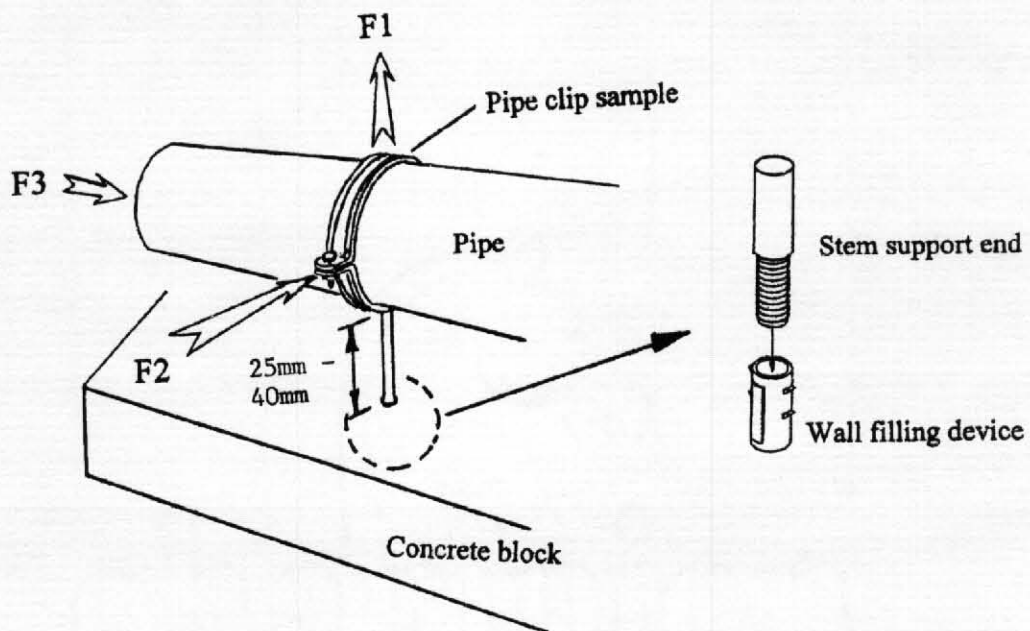


TEST REPORT

TITLE : Testing of Pipe Clip
OUR REFERENCE NO. : J8861-25
DESCRIPTION OF SAMPLE : Ø76mm (3") Stainless steel pipe clip supplied with plastic wall filling device; for BS2871 part 1/BSEN1057 copper pipe; dimensions: 19mm width x 3mm thick ring; with Ø12mm support stem electrically welded onto the ring; with 5/16" x 1" 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.





TEST REPORT


OUR REFERENCE NO. J8861-25 (P.2)

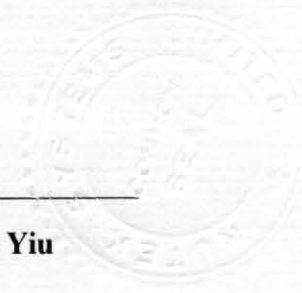
3. The concrete block was secured to the loading test frame. A hole was drilled on the concrete block; the pipe clip's support stem was hammered into the hole. A copper pipe of BS2871 part 1/BSEN1057 was connected to the pipe clip.
 4. The vertical pulling force **F1** applied to detach the pipe clip 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	239.6	244.7

Date : 15th February 2003 Authorized signature : _____


Nutek Systems is a testing agency,
approved by the Water Authority and
Government Supplies Department, for
testing water supply fittings.


Samson W.K. Yiu
(Director)



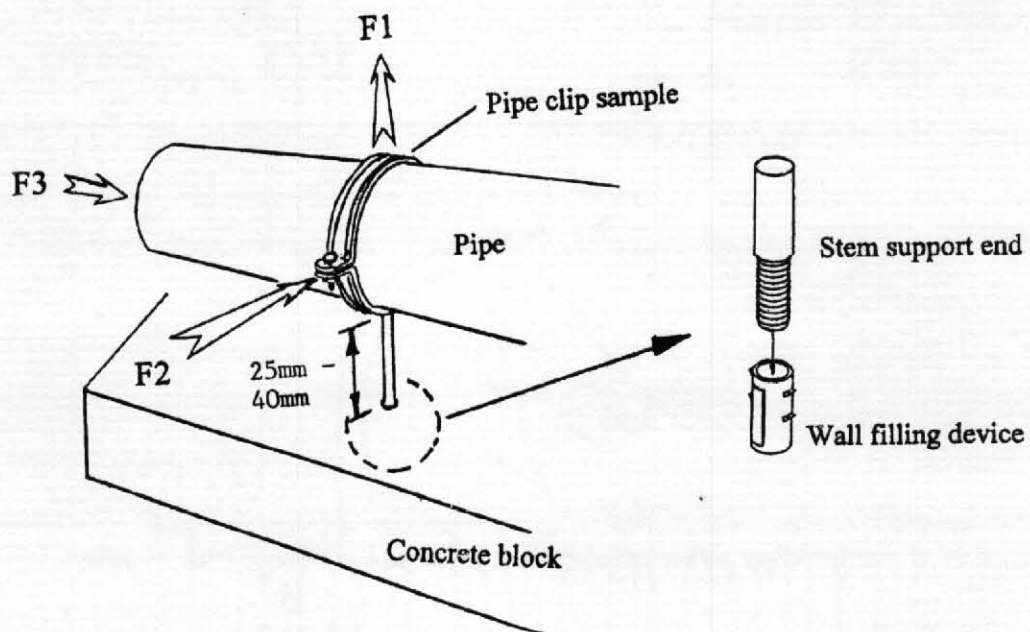


TEST REPORT

TITLE : Testing of Pipe Clip
OUR REFERENCE NO. : J8861-26
DESCRIPTION OF SAMPLE : Ø108mm (4") Stainless steel pipe clip supplied with plastic wall filling device; for BS2871 part 1/BS EN1057 copper pipe; dimensions: 19mm width x 3mm thick ring; with Ø12mm support stem electrically welded onto the ring; with 5/16" x 1" 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.





TEST REPORT


OUR REFERENCE NO. J8861-26 (P.2)

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/BSEN1057 was connected to the pipe clip.
4. The 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	198.8	260.0

Date : 11th February 2003 Authorized signature : _____

Nutek Systems is a testing agency, approved by the Water Authority and Government Supplies Department, for testing water supply fittings.


Samson W.K. Yiu
(Director)

