

[SS 1] /ic F16L19/02 or F16L19/00 or A62B07/00 or A62B9/04

Results in EPODOC **14.493**

EPODOC: term 'A62B07/00' not found in index 'IC'. *WARNING(1)*

[SS 2] nipple or coupling

Results in EPODOC **923.604**

[SS 3] thread

Results in EPODOC **404.348**

[SS 4] medicinal 1w oxygen

Results in EPODOC **31**

[SS 5] 1 and 4

Results in EPODOC **0**

[SS 6] 1 and 2

Results in EPODOC **2.243**

[SS 7] 6 and 3

Results in EPODOC **252**

[SS 8] oxygen and 7

Results in EPODOC **0**

[SS 9] flow 1w meter

Results in EPODOC **36.991**

[SS 10] 6 and 9

Results in EPODOC **0**

[SS 11] flow and 7

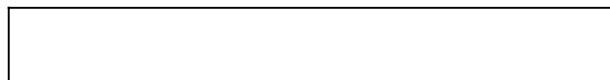
Results in EPODOC **14**

[SS 12] ..li



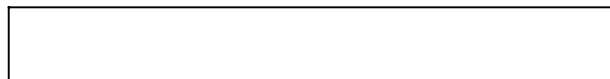
1/14 © EPODOC / EPO

PN - [CN206943506U](#) U 20180130
PR - CN20172822008U 20170709
AP - CN20172822008U 20170709
DT - I
PA - NINGBO HUAPING INTELLIGENT
CONTROL TECH CO LTD
TI - Adjustable check valve of **flow**
AB - Adjustable check valve of **flow** is
including valve body, sealed
pad, case, spring, valve gap, O
type circle, regulation pole,
joint, **coupling** nut, gasket, be
equipped with the regulation
pole on the valve gap, adjust the
relative altitude between pole
and the valve gap, can restrict
the movement distance of case to
control is through the **flow**
dimension of valve, the case top
is provided with the spring, and
under the effect of spring force,
the case always is in the trend of
closing, can prevent the water
refluence behind the valve,
threaded connection has the
joint on the valve body exhalant
canal, and the cover has **coupling**
nut on the joint, the last gasket
of having placed of **coupling** nut,
and the last processing
of **coupling** nut has the
internal **thread**, and the
convenience is connected with
external pipeline installation.



2/14 © EPODOC / EPO

PN - [JP2017211007](#) A 20171130
PR - JP20160103905 20160525
AP - JP20160103905 20160525
DT - I
FI - F16L19/02; F16L19/03
FT - 3H014/CA05; 3H014/DA01



PA - MIZUHO GIKEN SANGYOKK

TI - PIPE JOINT

AB - PROBLEM TO BE SOLVED: To provide a pipe joint in which a work for processing an inner peripheral tapered surface of a connection pipe end part and a tapered seal part of a **nipple** part under a high accuracy and a work for managing a fastening torque under a high accuracy are eliminated to increase the efficiency of processing work and connecting work and to reduce a processing cost; provide a pipe joint in which damage against the connection pipe end part and the pipe joint is prevented to assure positively an air-tightness between them and a leakage of fluid flowing in a fluid passage is prevented; and provide a pipe joint capable of positively washing residual fluid through a simple work even if the fluid is changed.SOLUTION: A seal member (57) protruded from a connection end surface is deformed when the connection end surface of a **nipple** part (43) is press-contacted with an end surface of a connection pipe due to a threaded engagement of a swivel nut (55) in respect to a **thread** formed at an outer peripheral surface of the end part of the connection pipe so as to enable an end surface of the connection pipe and a connection end surface of the **nipple** part (43) to be air-tightly sealed under a state in which each of the fluid **flow** passages is coincided to each other.SELECTED DRAWING: Figure 3

PN - [CN206496114U](#) U 20170915

PR - CN201621481671U 20161230

AP - CN201621481671U 20161230

DT - I

PA - TAIZHOU YUHUA REFRIGERATION EQUIPMENT MFG CO LTD

TI - Activity refrigeration water pipe with interface

AB - The utility model relates to an activity refrigeration water pipe with interface, including activity joint, water inlet, water pipe, delivery port, **coupling** nut, seal gasket, connecting **thread**, recess, fixed block and cutting ferrule. The beneficial effects of the utility model are that: the device convenient to use, the cost is reasonable, the safety in utilization is high, refrigeration effect is good, connect the fastening, and conveniently clean and change, during the use, earlier install the inside at the water inlet with the cutting ferrule, to move about to connect and be connected with refrigeration plant, refrigeration plant carries out threaded connection with the activity joint through **coupling** nut, more fastening when make connecting, the culture medium also has high use safety, the evaporator has a good refrigeration effect, the leakproofness of product has been improved, **flow** into the water inlet among the refrigerating fluid follow refrigeration plant, in using, increase the area of contact of water pipe and air, improve cryogenic effect, the efficiency of work is improved, be fit for using widely.

4/14 © EPODOC / EPO

PN - [CN205842027U](#) U 20161228

PR - CN20162690824U 20160704

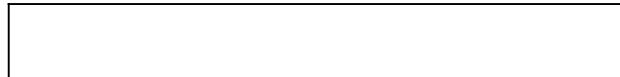
AP - CN20162690824U 20160704

DT - I

PA - LINHAI SITONG PIPE-MAKING CO LTD

TI - Oil seals for engine with dominant discharge clamping sleeve connector

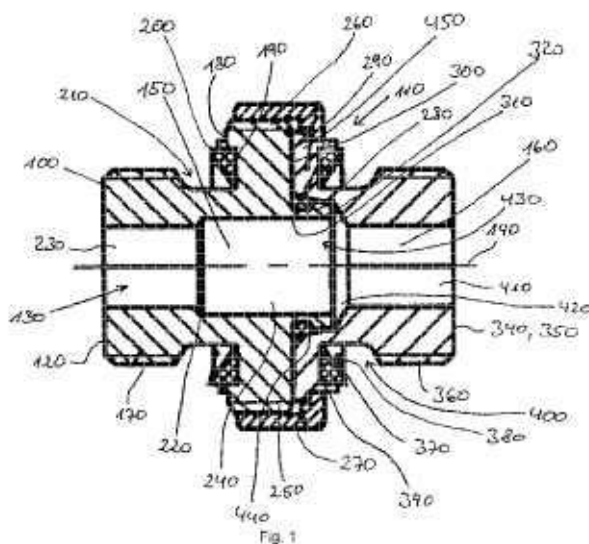
AB - The utility model belongs to the technical field of the engine accessories, concretely relates to security is higher has oil seals for engine with dominant discharge clamping sleeve connector. The utility model discloses a hose, **coupling**, connecting piece, the hose both ends are passed through the connecting piece and are connected with the **coupling**, the hose is by interior glue film, a steel wire reinforcement layer, outer glue film, the 2nd steel wire reinforcement layer of being



in proper order outside to, the joint main part in have the screw **thread** of mutually supporting outward with metal pipe fittings, be equipped with the flange with metal pipe fittings matched with in connecting the main part, connecting the insulating plug who has frustum of a cone shape between main part and the metal pipe fittings, the insulating plug overcoat is equipped with the matched with spring, the spring card is between the flange and metal pipe fittings that connect the main part. Can carry out **flow** control's adjustment through setting up to make metal pipe fittings and connect in the inside insulating plug structure of clamping sleeve connector between the main part, help rationally setting up engine fuel gas **flow**, guarantee combustion efficiency, avoid the waste of fuel.

5/14 © EPODOC / EPO

PN - [EP2754938](#) A2 20140716
 PNFP - EP2754938 A3 20170802
 PR - DE201310200251 20130110
 AP - EP20130197682 20131217
 DT - *; Rep
 CT - || STSE (A3)
[DE1959098](#) A1 19710527
 [XI] (MROSEK WERNER)
 [X] 1-9
 * page 3, paragraph 1; figure 1 *
 [I] 10;
[DE9406708U](#) U1 19940616
 [XI] (NEHEIM GOEKE & CO METALL [DE])
 [X] 1-9
 * pages 3, 4; figure - *
 [I] 10;
[US5890746](#) A 19990406
 [XI] (MUELLER PETER W [US])



[X] 1-9
 * abstract *
 * column 2, lines 49-60 *
 [I] 10;
[US5131695](#) A 19920721
 [XI] (WISER HERMAN D [US])
 [X] 1-9
 * column 5, lines 49-65; figure 3
 *
 [I] 10;
[US2696395](#) A 19541207
 [XI] (DEAN ELLIS JOHN)
 [X] 1-9
 * columns 1,2; figure - *
 [I] 10;
[US3288494](#) A 19661129
 [X] (CALLAHAN JR FRANCIS J, et al)
 [X] 1,3-6,8-10
 * columns 2,3; figure - *

- CCI - [F16L19/0218](#) ; [F16L19/0237](#) ;
[F16L19/025](#)
- PA - (A2 A3)
 SKF LUBRICATION SYSTEMS
 GERMANY [DE]
- TI - (A2)
 Assembled product comprising a screw **nipple** and a threaded bushing, and an associated hydraulic system
- (A3)
 Screw **nipple**, threaded bushing, assembled product and hydraulic system
- AB - (A2)
 The screw **nipple** (100) has a **flow** channel (150) that is formed in order to create hydraulic connection between two hydraulic components and an external connection **thread** (250) such that a mounted screw bushing (110) is screwed with an internal connection **thread** (260) of a union portion (270) at hydraulic component. A receptacle (310) is provided for connection seal (320) such that connection seal is provided in

connected state against a sealing surface (440). The screw bushing is pressed in order to prevent leakage of liquid from **flow** channel between **nipple** and bushing. An independent claim is included for a hydraulic system.

6/14 © EPODOC / EPO

PN - [KR101218352B](#) B1 20130104
 PR - KR20110062469 20110627
 AP - KR20110062469 20110627
 DT - I
 CT - || STSE (B1)
[JP2006275159](#) A 20061012 [] (SEKISUI CHEMICAL CO LTD);
[JP2006322542](#) A 20061130 [] (SEKISUI CHEMICAL CO LTD);
[JP2007278320](#) A 20071025 [] (SEKISUI CHEMICAL CO LTD);
[KR20110064378](#) A 20110615 [] (DUKSAN METAL CO LTD [KR])
 CNOI - [F16L19/0206](#) ; [F16L19/07](#)
 PA - AIKANG GREENTECH CO LTD [KR]
 TI - CONNETING DEVICE FOR PIPE
 AB - PURPOSE: A connection device for a pipe is provided to prevent the rotation of a metal sleeve because the end of the **coupling** portion of the metal sleeve is closely adhered to the end of the sill portion of the synthetic resin body and a plurality of hanging portions are inserted into a plurality of stopping grooves. CONSTITUTION: A connection device(100) for a pipe comprises a synthetic resin body(110), a metal sleeve(130), and a fixing member(140). A **flow** passage is formed in the inside of the synthetic resin body. The metal sleeve is inserted into the synthetic resin body to be **thread**-combined with a component of the pipe. A perforated hole(131) of the metal sleeve is connected to the **flow** passage of the synthetic resin body. The fixing member is connected to the synthetic resin body, thereby fixing the metal sleeve to the synthetic resin body.

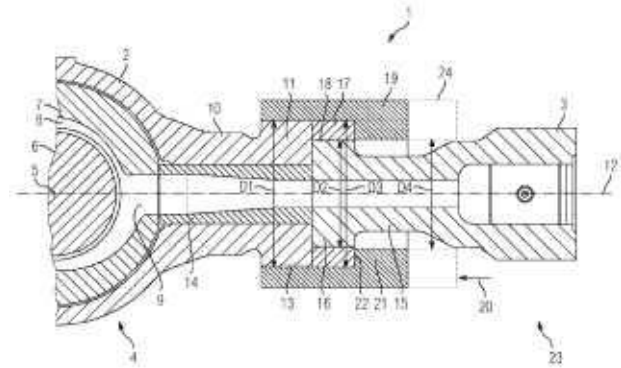
7/14 © EPODOC / EPO

PN - [KR101169679B](#) B1 20120806
 PR - KR20110144478 20111228
 AP - KR20110144478 20111228
 DT - I
 CNOI - [F16L47/16](#)
 CNOA - [E03B7/09](#)
 PA - LIM GYOON MOOK [KR]
 TI - PIPE JOINT
 AB - PURPOSE: A pipe connector is provided to prevent the relative rotation of an insert to a body because a joining unit of the insert is formed into a square shape. CONSTITUTION: A pipe connector comprises a body, an insert(110), and first and second O-rings

(120,130). The body comprises a **flow** path(100a) and a ring-shaped groove(100b). The **flow** path of the body is connected to a **flow** path of a first pipe. The ring-shaped groove is opened in a longitudinal direction. The insert comprises a joining unit and a pipe **coupling** unit. The joining unit is fitted into the ring-shaped groove. The pipe **coupling** unit is **thread**-coupled with a screw. The first and second O-rings are interposed among an internal surface, an external surface of the joining unit of the insert, and the body. Internal and external projections(104a,104b) are fitted into an internal O-ring groove and external O-ring groove(112b) of the joining unit of the insert.

8/14 © EPODOC / EPO

- PN - [EP2492567](#) A1 20120829
- PR - EP20110155317 20110222
- AP - EP20110155317 20110222
- DT - *; Rep
- CT - || STSE (A1)
[US5362109](#) A 19941108
 [X] (PACHT AMOS [US])
 [X] 1-7
 * column 3 - column 5; figure - *;
[FR1509185](#) A 19680112 [X] (M BARACK)
 [X] 1-7
 * the whole document *;
[GB2320073](#) A 19980610
 [X] (USUI KOKUSAI SANGYO KK [JP])
 [X] 1-7
 * abstract *;
[NL6715607](#) A 19680531 [X] (US STEEL CORP)
 [X] 1-7
 * figure - *;
[DE2850927](#) A1 19790531 [X] (O N IND LTD)
 [X] 1-7
 * page 4 - page 6; figure - *;
[EP0439749](#) A1 19910807
 [X] (AIRBUS GMBH [DE])
 [X] 1-7
 * abstract *
- CCI - [F16L19/0206](#)
- PA - SIEMENS AG [DE]
- TI - Releaseable joint with **coupling** nut
- AB - The arrangement (1) has pipe sockets (10, 15) including pipe



socket ends (11, 16), and a threaded ring (17) arranged on one of the pipe socket ends. A **coupling** nut (19) is connected to one of the pipe sockets via a **thread** (13) and designed in such a manner that transfer force is exerted to the threaded ring along a direction of the pipe socket. The threaded ring is connected with the other pipe socket end via another **thread** (18). The threaded ring and the **coupling** nut are formed in such a manner that the **coupling** nut is separated from the other pipe socket. The pipe sockets are respectively formed as an inlet port of a **flow** machine and a valve nozzle of a valve (23).

9/14 © EPODOC / EPO

- PN - [KR100988284B](#) B1 20101018
- PR - KR20100059024 20100622
- AP - KR20100059024 20100622
- DT - I
- CT - || STSE (B1)
[KR0118091Y](#) Y1 19980801 [] (KIM HYUNG SOO [KR]);
[JP2002250488](#) A 20020906 [] (OSAKA GAS CO LTD, et al);
[KR20080004827U](#) U 20081022 [];
[JPH06159571](#) A 19940607 [] (HITACHI METALS LTD)
- CNOI - [F16L19/0206](#) ; [F16L19/07](#) ; [F16L27/1008](#)
- CNOA - [F16L11/20](#) ; [F16L11/24](#)
- PA - SEUNG JIN IND CO [KR]
- TI - FLEXIBLE HOSE ASSEMBLY WITH JOINT
- AB - PURPOSE: A flexible hose assembly equipped with a joint is provided to lower the internal pressure and temperature by extending the **flow** path of gases through an extension part of a bellows tube. CONSTITUTION: A flexible hose assembly equipped with a joint comprises a bellows tube(2), a **coupling** nut(5), and a connector(6). The bellows tube has an annular protrusion(22) on the exterior to prevent the separation of the fastened **coupling** nut. The connector is supported on the annular protrusion and **thread**-coupled with the **coupling** nut. A fitting part(20) is formed from the front opening of the bellows tube to the annular protrusion. A gap is formed between the exterior surface of the fitting part and the interior surface of the connector. The gas leaking from the front opening of the bellows tube passes through the fitting part and then is discharged through the joint portion between the connector and the **coupling** nut.

10/14 © EPODOC / EPO

PN - [EP2128508](#) A2 20091202

PNFP - EP2128508 A3 20120620

PR - IT2008MO00012U 20080529

AP - EP20090160446 20090515

DT - *; Rep

CT - || STSE (A3)

[EP0921340](#) A2 19990609

[XY] (RIV RUBINETTERIE ITALIANE VALV [IT])

[X] 1

* abstract *

* column 3, line 33 - line 45 *

* figures 1,6,7 *

[Y] 2-4;

[GB1172566](#) A 19691203

[Y] (RUBEROID CO LTD [GB], et al)

[Y] 2

* page 1, line 41 - line 79 *

* figure - *;

[EP1701081](#) A1 20060913

[Y] (FISC ITALIANA SRL [IT])

[Y] 3,4

* abstract *

* figure 1 *;

[EP1033516](#) A1 20000906

[XA] (PIANA ALESSANDRO [IT])

[X] 1

* column 4, line 9 - line 46 *

* figures 3-5 *

[A] 2,3;

[US2005230650](#) A1 20051020

[XA] (PETERSON GERALD E [US])

[X] 1

* abstract *

* paragraph [0018] *

* figures 1A,3 *

[A] 2,3;

[US5921588](#) A 19990713

[A] (VOGEL ROLF [DE], et al)

[A] 1,2

* figures 1,4 *;

[GB317807](#) A 19290819

[A] (WALTER SLINGSBY)

[A] 3,4

* figure - *

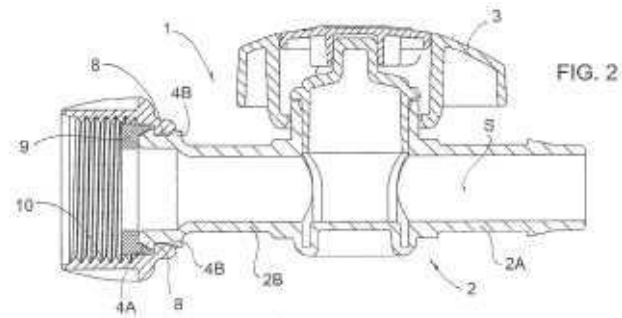
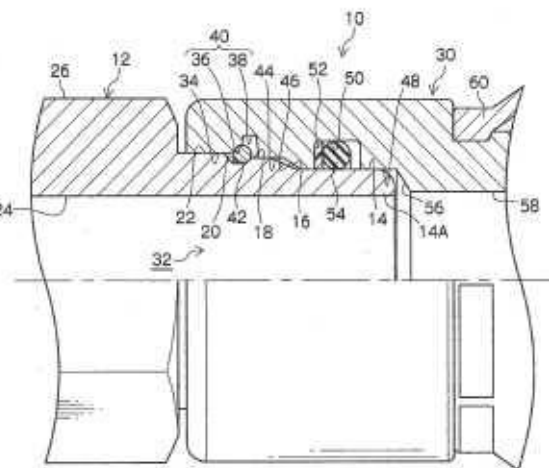


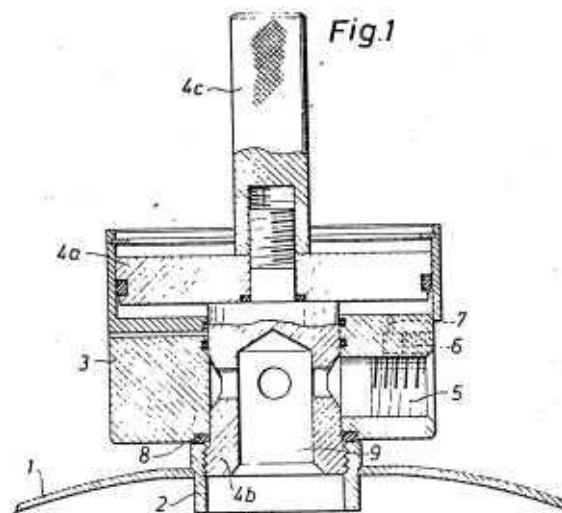
FIG. 1



- CCI - [F16L19/0218](#) ; [F16L19/0231](#) ;
[F16L19/0237](#) ; [F16L19/025](#) ;
[F16K27/06](#)
- CCA - [Y10T137/9029](#)
- PA - (A2 A3)
TECO SRL [IT]
- TI - (A2 A3)
Fluid shut-off device
- AB - (A2)
The device comes within the field of irrigation devices. A fluid **flow** shut-off or control valve or device (1) wherein at least one end (2A, 2B) of said valve (1) is shaped so as to allow **coupling** of the body (2) with a rotatable ring nut (7) provided with a female **thread** adapted to be screwed onto a corresponding male **thread** of a component.

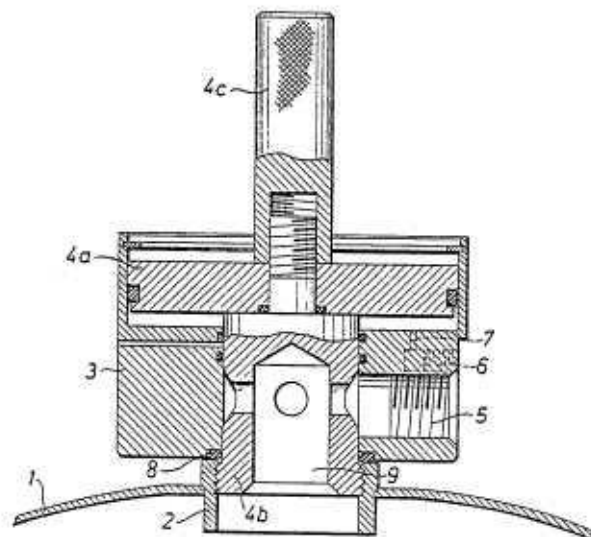
11/14 © EPODOC / EPO

- PN - [US4375297](#) A 19830301
- PR - SE19790003650 19790425
- AP - US19800217018 19801225
- DT - **
- CT - [US664341](#) A []; [US2154526](#) A [];
[US2712458](#) A []; [US2819733](#) A [];
[US3291442](#) A []; [US3727952](#) A [];
[US4227721](#) A []
- CCI - [F16L17/10](#) ; [F16L41/10](#)
- PA - NOLEK SYSTEM AB [SE]
- TI - Quick **coupling** device
- AB - PCT No. PCT/SE80/00089 Sec. 371 Date Dec. 25, 1980 Sec. 102 (e) Date Nov. 19, 1980 PCT Filed Mar. 26, 1980 PCT Pub. No. WO80/02316 PCT Pub. Date Oct. 30, 1980. A quick **coupling** device for fluid tight, especially temporary connection to a threaded pipe **nipple** (2) or the like, e.g. for use in tightness tests or leak detection. The device



comprises two portions which are axially movable relative to each other, namely a cylindrical casing (3) and a piston (4) displaceably mounted therein. The casing and/or the piston are adapted (5) for permanent connection to a pressurized fluid conduit, and the piston has a through opening (9) permitting the **flow** of pressurized fluid to the pipe **nipple** (2). According to the invention, one (e.g. the piston (4) of the axially movable portions is provided with a **thread** dimensioned to be screwed into engagement with the **thread** of the pipe **nipple** (2), whereas the other portion (e.g. the casing 3), at its axial end surface, has a ring gasket (8) dimensioned to seal against the axial end surface of the pipe **nipple** upon screwing said one portion (4) into engagement with the pipe **nipple** and displacing the other portion (3) axially against the pipe **nipple** (2). (FIG.

- 12/14** © EPODOC / EPO
- PN - [WO8002316](#) A1 19801030
- PR - SE19790003650 19790425
- AP - WO1980SE00089 19800326
- DT - *; Rep
- CT - |SE| ISR (A1)
[SE308641](#) B [X];
[SE77041911](#) B [X];
[DE1525984](#) A1 [L];
[GB992347](#) A [L];
[US664341](#) A [X];
[US2154526](#) A [L]
- CCI - [F16L17/10](#) ; [F16L41/10](#)
- PA - NOLEK SYSTEM AB [SE]; PERSSON J [SE]
- TI - QUICK **COUPLING** DEVICE
- AB - A quick **coupling** device for fluid



tight, especially temporary connection to a threaded pipe **nipple** (2) or the like, e.g. for use in tightness tests or leak detection. The device comprises two portions which are axially movable relative to each other, namely a cylindrical casing (3) and a piston (4) displaceably mounted therein. The casing and/or the piston are adapted (5) for permanent connection to a pressurized fluid conduit, and the piston has a through opening (9) permitting the **flow** of pressurized fluid to the pipe **nipple** (2). According to the invention, one (e.g. the piston 4) of the axially movable portions is provided with a **thread** dimensioned to be screwed into engagement with the **thread** of the pipe **nipple** (2), whereas the other portion (e.g. the casing 3), at its axial end surface, has a ring gasket (8) dimensioned to seal against the axial end surface of the pipe **nipple** upon screwing said one portion (4) into engagement with the pipe **nipple** and displacing the other portion (3) axially against the pipe **nipple** (2).

13/14 © EPODOC / EPO

PN - [KR950007634B](#) B1 19950713

PR - KR19920016380 19920908

AP - KR19920016380 19920908

DT - I

PA - HYUNDAI ELECTRONICS IND [KR]

TI - CONNECTING JIG FOR MASS **FLOW** CONTROLLER

AB - The device for directly connecting the gas tube with the inlet/outlet of the mass **flow** controller (MFC) by rotating of the handle, comprises a base plate (10) having a movable hole (11) and a guide hole (12) formed on the inlet/outlet (6,7) of the MFC and a guide bar (13); a pair of units (20) having a flexible section (34) for expanding or shrinking the **nipple** section (23) and a guide ring (25) bonded to the guide bar (13); a support plate (30) for clamping the housing (22) by a **thread** (31) at the lower end of the

housing.

14/14 © EPODOC / EPO

PN - [DE4141841](#) C1 19930311

PR - DE19914141841 19911218

AP - DE19914141841 19911218

DT - *

CT - [DE884256](#) C []; [DE581383](#) C [];
[US1997845](#) A []

CCI - [G01F15/185](#) ; [F16L19/00](#)

TI - Threaded **coupling** for gas fittings - has second threaded section corresp. to counter **thread** on bush for form-fitting connection

AB - The screw-in connector for gas fittings has a bush (3) with a gas **flow** cross-section and a threaded nut (4) engaging the bush which can be screwed onto a corresp. threaded section (11) of a gas fitting or part thereof. The threaded nut engages the bush via a second threaded section (12) corresp. to a counter **thread** (13) on the bush and axially arranged w.r.t. the first threaded section. The second **thread** is of the same sign as the first but has a smaller pitch, pref. 85 to 88 per cent of the first **thread**'s pitch.
USE/ADVANTAGE - Ensures required sealing force can be achieved using smaller tightening force, whilst providing adequate **flow** cross-section.

[SS 12] ..v

[EPODOC: SS 12]