

AGRU Products User-friendly and Reliable



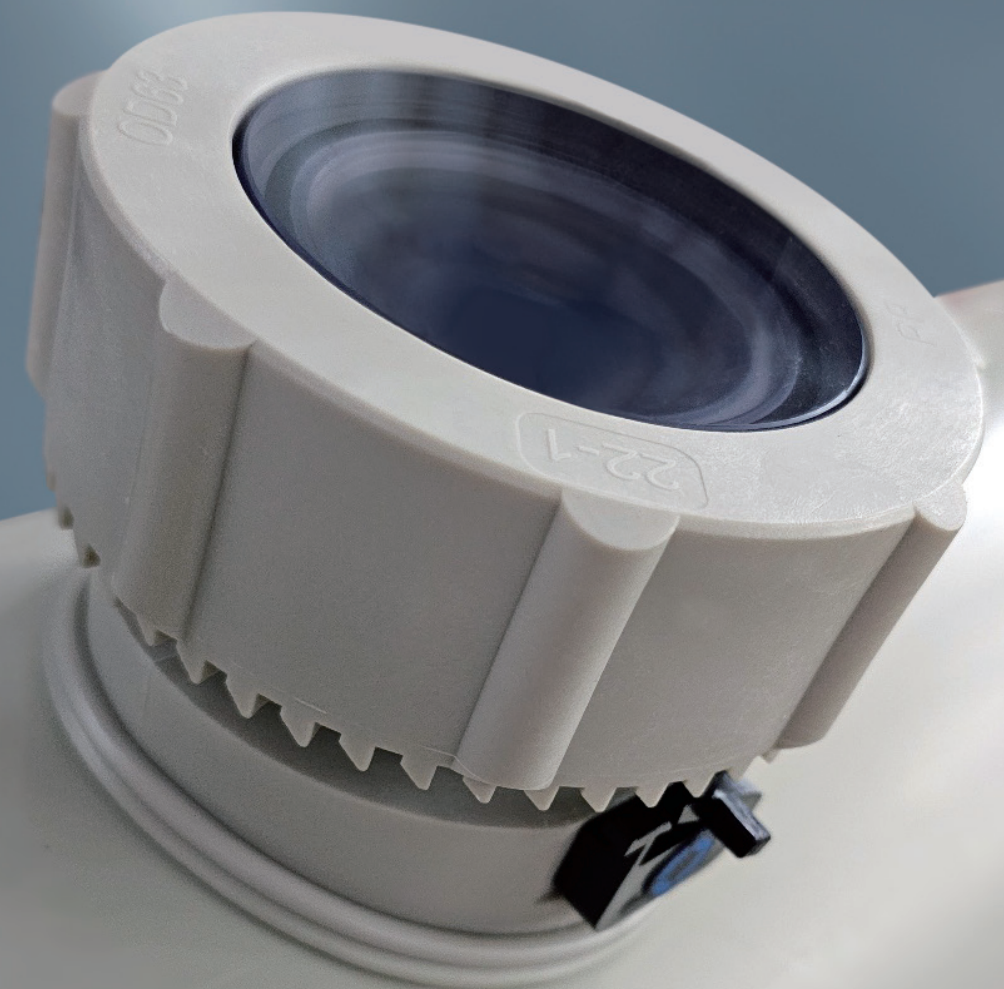
Union Saddle System

For Waste Water System

Union Saddle System

**PP, PE
Union Saddle**

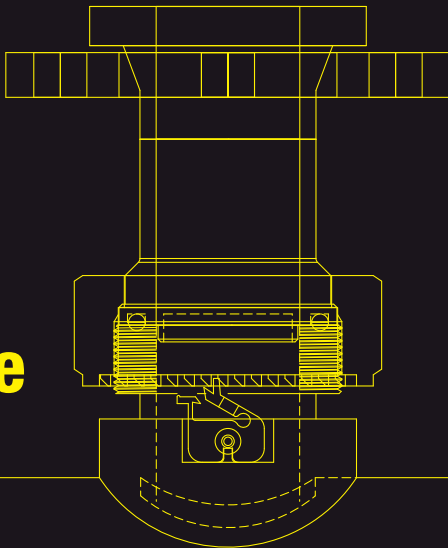
For Automatic
Welding Solution



PP Union Saddle

Human error disappears with the Auto welding solution

PP/PE Union Saddle



Patent and design registration
특허 및 디자인 등록

Patent - No. 10-2367498, etc.
특허 - 제 10-2367498호 등
Design - No. 30-1168989, etc.
디자인 - 제 30-1168989호 등



Advantages

- Prevention accidents due to ion leakage
- Confirmation the water level inside in pipe through transparent cap
- The first automatic Saddle welding equipment

Delivery

- Efficient working by operating 2 equipment per team
- Shortening production period (manual→automatic)

Construction cost

- External operating cost reduction by reducing the number of supervisors
- Cost reduction by removing E-fusion socket at Hook-up point

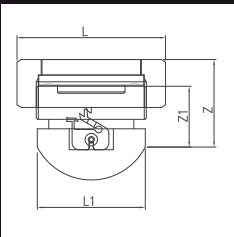
Welding

- Automatic control in parameter (Temperature / Pressure / Time)
- Improvement of human error due to manual welding point
- Only certified welder can be operated



PP Union Saddle

Clear PVC Cap + Nut (Prevent loosening)
FKM-F Sealing | Injection moulded
Saddle(Butt+Socket)-welding

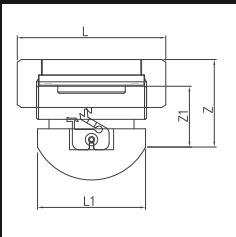


PPH grey Code : 001

Dimension	Code	Detail	da(OD) mm	L mm	L1 mm	Z mm	Z1 mm
90	22.001.01090.11	90/63 SDR17-11	90	110	80	64.8	45
110	22.001.01110.11	110/63 SDR17-11	110	110	90	72.3	52.5
140	22.001.01140.11	140/63 SDR17-11	140	110	92	72.3	52.5
160	22.001.01160.11	160/63 SDR17-11	160	110	92	72.3	52.5
225	22.001.01225.11	225/63 SDR17-11	225	110	92	72.3	52.5

PP Union Saddle

Clear PVC Cap + Nut (Prevent loosening)
FKM-F + FFKM Sealing | Injection moulded
Saddle(Butt+Socket)-welding

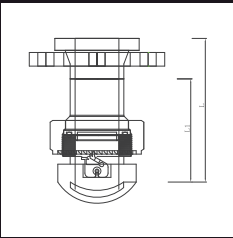


PPH grey Code : 001.2

Dimension	Code	Detail	da(OD) mm	L mm	L1 mm	Z mm	Z1 mm
90/63	22.001.02090.11	90/63 SDR17-11	90	110	80	64.8	45
110/63	22.001.02110.11	110/63 SDR17-11	110	110	90	72.3	52.5
140/63	22.001.02140.11	140/63 SDR17-11	140	110	92	72.3	52.5
160/63	22.001.02160.11	160/63 SDR17-11	160	110	92	72.3	52.5
225/63	22.001.02225.11	225/63 SDR17-11	225	110	92	72.3	52.5

Union Saddle System

Various components according to the purpose of piping design



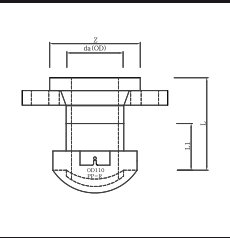
Flange nozzle for Union Saddle

Connection to Union Saddle, Connection part Union Saddle, FKF-F sealing (with O-ring)
With Union End + Stub Flange
And Backing Ring JIS Standard

Injection moulded | Butt(IR)-welding

PPH grey Code : 001.5

Dimension	Code	Detail	da(OD) mm	L mm	L1 mm	Z mm
63	22.001.05063.11	63×5.8 SDR11 ISO S-5	63	114	86.5	99



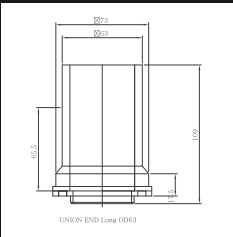
Flange nozzle

Stub Flange + Backing Ring
JIS Standard with IR welding

Injection moulded | Machined
Saddle(Butt+Socket)-welding

PPH grey Code : 001.6

Dimension	Code	Detail	da(OD) mm	L mm	L1 mm	Z mm
110/63	22.001.06110.11	110/63 SDR17-11	63	96	48	72.3
140/63	22.001.06140.11	140/63 SDR17-11	63	96	48	72.3
160/63	22.001.06160.11	160/63 SDR17-11	63	96	48	72.3
225/63	22.001.06225.11	225/63 SDR17-11	63	96	48	72.3



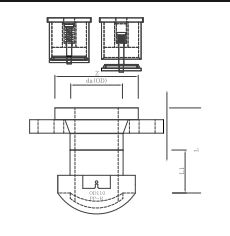
Union End long type

Adaptor for Union Saddle, Connection part Union Saddle, FKF-F sealing (with O-ring)
Other type add FFKM O-Ring

Injection moulded
Butt(IR)-welding | Socket welding

PPH grey Code : 001.4

Dimension	Code	Detail	da(OD) mm	L mm	L1 mm	Z mm
63	22.001.04063.11	63×5.8 SDR11 ISO S-5	63	109	85.5	77.8



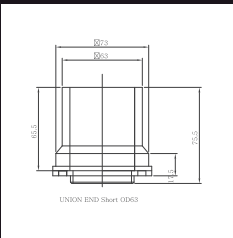
Flange nozzle

Stub Flange + Backing Ring JIS Standard with IR welding
Nozzle internal thread processing Includes trap insertion, Trap with spring and FKM-F O-Ring

Injection moulded | Machined
Saddle(Butt+Socket)-welding

PPH grey Code : 001.6.1

Dimension	Code	Detail	da(OD) mm	L mm	L1 mm	Z mm
110/63	24.001.06110.11	110/63 SDR17-11	63	96	48	72.3
140/63	24.001.06140.11	140/63 SDR17-11	63	96	48	72.3
160/63	24.001.06160.11	160/63 SDR17-11	63	96	48	72.3
225/63	24.001.061225.11w	225/63 SDR17-11	63	96	48	72.3



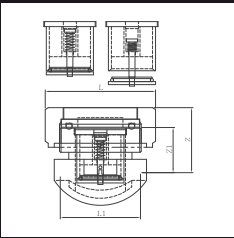
Union End short type

Adaptor for Union Saddle, Connection part Union Saddle, FKF-F sealing (with O-ring)
Other type add FFKM O-Ring

Injection moulded | Butt(IR)-welding

PPH grey Code : 001.3

Dimension	Code	Detail	da(OD) mm	L mm	L1 mm	Z1 mm
63	22.001.03063.11	63×5.8 SDR11 ISO S-5	63	69.5	46	77.8



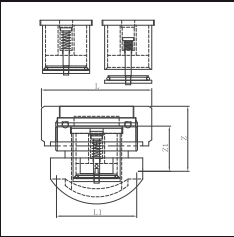
PP Union Saddle With Trap

Clear PVC Cap + Nut (Prevent loosening)
FKM-F Sealing | Nozzle internal thread processing
Includes trap insertion
Trap with spring and FKM-F O-Ring

Injection moulded | Machined
Saddle(Butt+Socket)-welding

PPH grey Code : 001.1

Dimension	Code	Detail	da(OD) mm	L mm	L1 mm	Z mm	Z1 mm
90/63	24.001.011090.11	90/63 SDR17-11	90	110	80	64.8	45
110/63	24.001.011110.11	110/63 SDR17-11	110	110	90	72.3	52.5
140/63	24.001.011140.11	140/63 SDR17-11	140	110	92	72.3	52.5
160/63	24.001.011160.11	160/63 SDR17-11	160	110	92	72.3	52.5
225/63	24.001.011225.11	225/63 SDR17-11	225	110	92	72.3	52.5



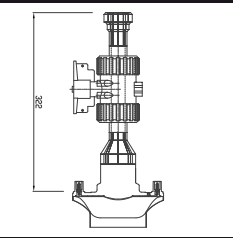
PP Union Saddle With Trap

Clear PVC Cap + Nut (Prevent loosening)
FKM-F + FFKM Sealing | Nozzle internal thread processing | Includes trap insertion
Trap with spring and FKM-F O-Ring

Injection moulded | Machined
Saddle(Butt+Socket)-welding

PPH grey Code : 001.2.1

Dimension	Code	Detail	da(OD) mm	L mm	L1 mm	Z mm	Z1 mm
90	24.001.021090.11	90/63 SDR17-11	90	110	80	64.8	45
110	24.001.021110.11	110/63 SDR17-11	110	110	90	72.3	52.5
140	24.001.021140.11	140/63 SDR17-11	140	110	92	72.3	52.5
160	24.001.021160.11	160/63 SDR17-11	160	110	92	72.3	52.5
225	24.001.021225.11	225/63 SDR17-11	225	110	92	72.3	52.5



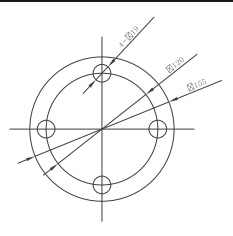
PP Top down Sample Port

PP Electro Fusion Saddle Ball Valve + Reducer
Include Union End Cap With IR Welding

Injection moulded | Machined
Saddle E/F Welding

PPH grey Code : 002

Dimension	Code	Detail	da(OD) mm	L mm	L1 mm	Z mm
110/32	24.002.00110.11	110/32 SDR17-11	110	322	273	100
140/32	24.002.00140.11	140/32 SDR17-11	140	322	273	100
160/32	24.002.00160.11	160/32 SDR17-11	160	322	273	100
225/32	24.002.00225.11	225/32 SDR17-11	225	322	273	102



Clear PVC Blind Flange

No Steel insert
JIS/pressureless applications

Machined
Flange connection

Clear PVC Code : 334.11

Dimension	Code	Detail	da(OD) mm	d mm	d2 mm	b mm	k mm	Bolt Hole
63	24.334.11063.20	63	63	165	19	25	125	8
90	24.334.11090.25	90	90	185	19	25	150	8
110	24.334.11110.25	110	110	210	19	25	175	8
140	24.334.11140.25	140	140	250	24	25	210	8
160	24.334.11160.30	160	160	280	24	30	240	8
225	24.334.11225.30	225	225	330	24	30	290	12

Auto Saddle Welding



Our welding machine operates in two types : Fixed type / Rail type
When one-time is required, a fixed type can be useful. When several union saddles need to be on the same pipe, a rail type can be useful. It means that can use welding machine according to your working conditions.

Features

- Automatic control in Temperature/Pressure/Time
- Improvement of human error due to removal of manual welding points(Korea's first saddle automatic welding)
- Prevention of leakage accidents through Anti-Lock devices
- Checking the water level inside pipe through transparent cap

Aggressive support for sites

- Complete construction guidelines
- Immediate machine A/S & Regular maintenance

Rental Service

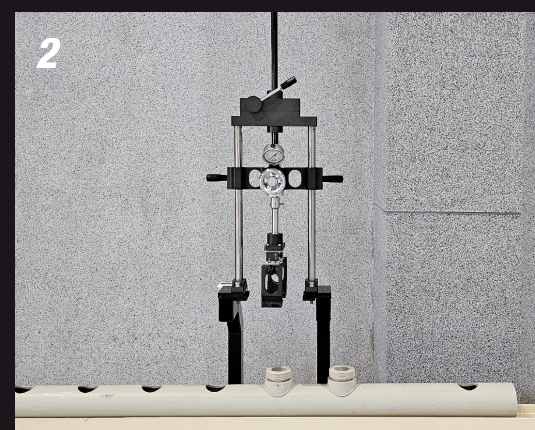
We provide rental services with our customers(efficient respond to project). Through operating two units of equipment per team, can be cotrolled delivery date.

1 Drilling machine

Regarding to punching hole on pipe, It can easily be operated by using movable rail and also is compatible with various punching equipment.

2 Manual welding machine

Depending on working conditions, we can provide manual type equipment and compatible with all accessories between AUTO type and Manual type



We can supply customized piping systems according to customer's request, in addition to supplying materials, welding machines, construction guideline.

PVDF, PP, PE, ECTFE 배관 Spool 제작 및 융착관련 요청 사항은 hp@agrukorea.com으로 문의 바랍니다.

AGRUCHEM PP-H/PP-R

Industrial piping systems for high temperatures and chemicals



Product range

Pipes

PP-H OD 32mm ~ 630mm
PP-R OD 20mm ~ 800mm



MULTI fittings

SDRs of 17 and 11
OD 20mm ~ 315mm



Extended fittings

SDRs of 17 and 11
OD 63/50mm ~ 315/250mm



Short-spigot fittings

SDRs of 17 and 11
OD 25/20mm ~ 315/280mm



Segmented fittings

SDRs of 17, 26, 33 and 41
OD 560mm ~ 1200mm



Socket welding fittings

PP-H OD 20mm ~ 140mm
PP-R OD 20mm ~ 800mm



Electrofusion welding fittings

OD 20mm ~ 355mm



Valves

OD 20mm ~ 140mm



AGRULINE PE 100-RC

for outstanding crack resistance



Product range

Pipes

SDR 11 OD 20mm ~ OD 1000mm
* Maximum supply Range : OD3500mm



Multi-bend 90°

SDR 11 OD 20mm ~ OD 315mm
* Fittings are available up to OD3500mm according to the respective pipe SDR



Elongated Fittings

SDR 11 OD 20mm ~ OD 500mm
* Fittings are available up to OD3500mm according to the respective pipe SDR

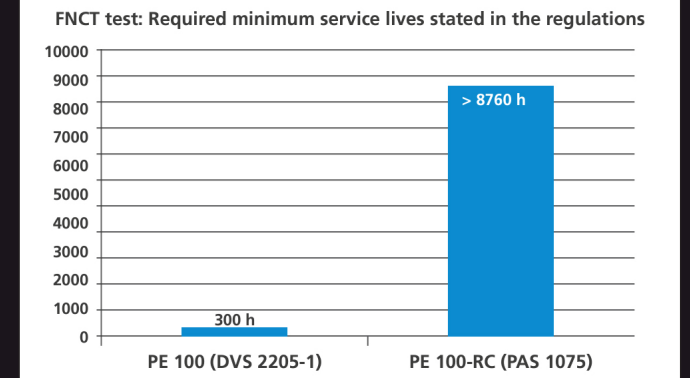


Gas flow guard

SDR 11 OD 20mm ~ OD 63mm
Monofilar



E-Coupler injection moulded
(monofilar up to OD 500mm) and machined
SDR 11 OD 20mm ~ OD 900mm
SDR 17 OD 90mm ~ OD 1400mm



PE 100-RC material requirements

The full-notch creep test(FNCT as per ISO 16770) is a recognize test method for determining resistance to slow crack growth in polyethylene. After a wetting agent has been applied, a notched test specimen is exposed to tensile stress at a high temperature(80°C). The minimum service life for PE 100-RC fittings must be > 8760 hours acc. to PAS 1075. In contrast to this, the required minimum service life for PE 100 components acc. to DVS 2205-1 is just 300 hours. The excellent quality and operating safety of AGRULINE fittings has now been substantially improved once again through the new PE 100-RC.

E-Tee

SDR 11 OD 20mm ~ OD 225mm
Monofilar



E-Tee reduced

SDR 17~11 OD 25/20mm ~ OD 160/225mm
Monofilar



E-Elbow 45°

SDR 11 OD 20mm ~ OD 225mm
Monofilar



E-Elbow 90°

SDR 11 OD 20mm ~ OD 225mm
Monofilar



AGRUCHEM ECTFE

Safe transport of highly aggressive media



Product range

					
Pipes OD 90mm SDR 33 OD 20mm ~ 160mm SDR 21 Ventiation pipes OD 110mm ~ 200mm	Elbow 45° OD 20mm ~ 160mm SDR 21	Multi-bend 90° OD 20mm ~ 160mm SDR 21	Pipes OD 20mm ~ 160mm SDR 21 Tee, reduced OD 110/63mm SDR 21 OD 160/63mm SDR 21	Stub flange DIN OD 20mm ~ 160mm SDR 21	Pipes Long spigot OD 25/20mm ~ 160/140mm SDR 21 Short spigot OD 110/63mm SDR 21
					
End cap OD 90mm SDR 33 OD 20mm ~ 160mm SDR 21 Ventiation pipes OD 110mm ~ 200mm	Union type 24 OD 20mm ~ 160mm SDR 21	Adaptor male thread OD 20mm ~ 160mm SDR 21	Diaphragm valve manually controlled OD 20mm ~ 63mm SDR 21 Diaphragm valve pneumatic open or closed under spring force/double action drive OD 20mm ~ 63mm SDR 21	AGRUCHEM also offers ECTFE semi-finished products : Filler wire, welding rods and plates	The ECTFE portfolio also includes accessories : Backing rings, pipe clips and seals for flanges (Seal Clean)

ECTFE 재질은 높은 내열성과 내화학성으로 고온 및 고농도 Chemical Line에서 PFA 배관을 대체하여 사용 가능
특히 반도체 산업 오존폐수 알칼리폐수에 권장하며 다양한 산업에 공급 중

Systematic welding technology

expertise in technology and welding processes

		
IR Welding SP110-S V3 OD 20mm ~ OD 110mm	IR Welding SP250-S V3 OD 110mm ~ OD 250mm	IR Welding SP315-S V3 OD 110mm ~ OD 315mm
		
IR Welding SP63 mobile OD 20mm ~ OD 63mm	Beadless Welding SP110-B OD 20mm ~ OD 110mm	Beadless Welding EF110-B OD 20mm ~ OD 110mm
		
Butt Welding ST CNC 2.0 SAGCNC160 : OD 40 ~ OD 160mm SAGCNC315 : OD 90 ~ OD 315mm SAGCNC355 : OD 90 ~ OD 355mm SAGCNC500 : OD 200 ~ OD 500mm SAGCNC630 : OD 315 ~ OD 630mm	EF Welding EF1600 OD 20mm ~ OD 1600mm	
		
EF Welding AGRU 300 Smart OD 20mm ~ OD 160mm		

용착장비 국내/외 임대 및 판매 가능, 수리 및 인증서 취득 관련하여 wt@agrukorea.com으로 문의 바랍니다.